0000031342

Transcript Exhibit(s)

T-03654A-05-0350

T-01051B-05-0350

RECEIVED
2005 SEP 23 P 3: 59
AZ CORP COMMISSION
DOCUMENT CONTROL

Arizona Court Reporters Association

Arizona Reporting Service, Inc.

Court Reporting & Videoconferencing Center

e-mail: azrs@az-reporting.com
www.az-reporting.com

NCRA MEMBER Guardians of the Record

Marta T. Hetzer
Administrator/Owner

Suite Three
2627 North Third Street
Phoenix, AZ 85004-1126
(602) 274-9944
FAX: (602) 277-4264

To: Docket Control

Re: Proceedings in Arbitration
Level 3 Communications and Qwest
Volumes I through III (Concluded)
September 8, 9, and 16, 2005

STATUS OF ORIGINAL EXHIBITS

FILED WITH DOCKET CONTROL
09-23-2005

LEVEL 3

1 through 5, 11 through 16, and 18 through 21

QWEST

1 through 16 and 18 through 25

EXHIBIT NUMBERS NOT UTILIZED
Numbers skipped

LEVEL 3

8 and 9

ORIGINAL EXHIBITS RETURNED TO PARTIES

LEVEL 3

6 and 7	Not moved by design or oversight
10	Not moved by design or oversight
17	Not utilized

QWEST

17	Not moved by design or oversight

Copy to:

Jane L. Rodda, ALJ (letter only)
QWEST, Thomas M. Dethlefs, Sr., Esq.
LEVEL 3, Erik Cecil, Esq.

EXHIBIT
PENGAD-Bayonne, N.J.
Q 1
9/8/05
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
MARC SPITZER
Commissioner
WILLIAM A. MUNDELL
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	)	Docket No. T-03654A-05-0350
PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	T-01051B-05-0350

DIRECT TESTIMONY OF LARRY B. BROTHERSON

ON BEHALF OF

QWEST CORPORATION

(Disputed Issue Nos. 1a, 3, 4, 10, 11, 12, 14, 15, 16, 19)

JULY 15, 2005
CORRECTED AUGUST 3, 2005

compensation rules and treatment accordingly under this Agreement based on treating the VoIP Provider Point of Presence ("POP") is an end user premise for purposes of determining the end points for a specific call.

> 7.2.2.12.1 CLEC is permitted to utilize LIS trunks to terminate VoIP traffic under this Agreement only pursuant to the same rules that apply to traffic from all other end users, including the requirement that the VoIP Provider POP must be in the same Local Calling Area as the called party.

Q. LEVEL 3 OBJECTS TO THE REQUIREMENT THAT THE VOIP PROVIDER POINT OF PRESENCE (POP) BE CONSIDERED AN END USER CUSTOMER FOR PURPOSES OF DETERMINING THE END POINTS OF A CALL. CAN YOU COMMENT?

A. The language requiring that the VoIP POP be considered an end user customer was a portion of the definitions moved into the body of the agreement at 7.2.2.12. Level 3's definition deletes that language. The language is critically important due to the ESP Exemption, and must be included somewhere in the agreement. Since both Level 3 and Qwest agree that the traffic that is handed off to the public network from the VoIP POP arrived over the Internet and is an alternative to traditional IXC traffic, the only real question is whether or not the VoIP provider must purchase FGD to terminate its calls. In answer to that question, the FCC has said no. *If* the VoIP provider is acting as an ESP, it is entitled to purchase its connection out of the local exchange tariffs and obtain local service *within the LCA where it is physically located.* In this respect, the ESP is treated as any other end user customer.

Q. BASED UPON THESE FACTS WHAT SHOULD THE COMMISSION DO

reason why VoIP should be given special treatment. There is certainly no good policy reason. It is easy to see why Level 3 wants to change the compensation scheme in such a radical manner; it would allow Level 3 or its VoIP provider customers to avoid charges that other identically-situated carriers must pay. Qwest strongly opposes such an approach.

Q. PLEASE DISCUSS TDM-IP-TDM (IP IN THE MIDDLE) TRAFFIC.

A. While Level 3 also appears to seek special treatment for this traffic, it should not be. Because this traffic originates in TDM, it does not meet the criteria for VoIP traffic. Therefore, as the FCC clearly ruled in the AT&T decision, this traffic is not VoIP, is not an information service (and thus does not qualify for the ESP exemption), and therefore is not exempt from access charges that apply to other carriers in identical circumstances. Thus, Qwest's language treats this type of traffic no different than any other TDM originated traffic for intercarrier compensation purposes. The Commission should reject Level 3's efforts to remove this traffic from existing intercarrier compensation rules and should adopt Qwest's language.

V. DISPUTED ISSUE 1A: SECTION 7.1.1.1 OPERATION AUDITS

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 1A ?

A. This dispute first highlights the reason that I am addressing the issues in a different order than that presented by Level 3. In its petition and matrix, Level 3 lists issue 1A as the first of its Tier 1 issues. This single issue number, 1A, has three Qwest

Q WHY DOES QUEST OBJECT TO LEVEL 3'S PROPOSED LANGUAGE IN 7.3.6.1?

A. Qwest's major objection to Level 3's language stems from the fact that Level 3 has inserted additional types of traffic into the paragraph for which it wants to receive reciprocal compensation at the rate of $.0007. The two additional types of traffic are the imprecise reference to "section 251(b)(5) traffic" as well as "VoIP traffic." As I explain below, by proposing this definition, Level 3 is attempting, in effect, to obtain a decision from the Arizona Commission that access rates do not apply to any Level 3 traffic in Arizona.

Q. HOW IS LEVEL 3 ATTEMPTING TO ELIMINATE ACCESS CHARGES IN ARIZONA?

A. In a very roundabout, but very clever way. Level 3 proposes language saying the rate of $.0007 shall apply to "251(b)(5) traffic." To find out what this means, one must go to the definitions section of Level 3's proposed agreement to see how it defines "251(b)(5) traffic." It does this in its definition of the term "telecommunications," which, under Level 3'sd definition, "*includes*, but is not limited to *Section 251(b)(5) Traffic, which is defined as* Telephone Exchange Service, Exchange Access Service, Information Service, *and Telephone Toll Service (including but not limited to IntraLATA and InterLATA Toll) traffic and is also defined to include ISP-Bound traffic, VoIP traffic.*" Thus, while including "ISP-bound traffic and VoIP," Level 3 also includes toll traffic in section 251(b)(5) traffic. As far as I know, it is unprecedented for a CLEC to claim that toll traffic is

established by the Commission for voice traffic. The FCC did nothing to take away the state commissions' right to set the voice rate for reciprocal compensation. Level 3 thinks a different rate, $.0007, should apply and not the rate established by the Arizona Commission. In addition, Level 3 again tries to insert 251(b)(5) language, which, based on the discussion above, includes toll. Level 3 also attempts to include any VNXX calls by tying the traffic to the NPA-NXX, and not to the towns where the customers reside.

Q. WHY SHOULD THE COMMISSION ADOPT THE QWEST LANGUAGE OVER THE LEVEL 3 LANGUAGE?

A. I will not repeat the arguments on this issue. I addressed them in the VNXX definition section, as well as the compensation for ISP issue. In both instances, Level 3 sought to expand the definition of 251(b)(5) traffic to include calls from outside the LCA if the terminating party had an assigned NXX associated with the local exchange of the calling party. Level 3 is attempting through its language in 7.3.4.1 to do the same thing for voice and VoIP calls. Qwest's language makes clear that VNXX traffic, including voice and VoIP VNXX traffic, is not local and is not subject to reciprocal compensation rules for local traffic. Level 3's attempt to change the FCC's orders and redefine 251(b)(5) to include toll is also addressed in Issues 10 and 19.

IX. DISPUTED ISSUE 19: ISP BOUND 3:1 RATIO, Section 7.3.6.2

Q. WHAT IS THE DISPUTED LANGUAGE FOR SECTION 7.3.6.2?

method for tracking ISP-Bound Traffic is sufficient" is language proposed by Qwest for all states. Qwest's proposed language simply provides that *if* a Commission has previously ruled that Qwest's method of identifying actual ISP-bound traffic is sufficient, then that method of identifying actual local and ISP minutes should be employed instead of the presumption formula. The FCC gave this right to both parties as part of the decision in the ISP Remand Order establishing the 3:1 ratio.

> "A carrier may rebut the presumption, for example, by demonstrating to the appropriate state commission that traffic above the 3:1 ratio is in fact local traffic delivered to non-ISP customers. In that case, the state commission will order payment of the state-approved or state-arbitrated reciprocal compensation rates for that traffic. Conversely, if a carrier can demonstrate to the state commission that traffic it delivers to another carrier is ISP-bound traffic, even though it does not exceed the 3:1 ratio, the state commission will relieve the originating carrier of reciprocal compensation payments for that traffic, which is subject instead to the compensation regime set forth in this Order".[25]

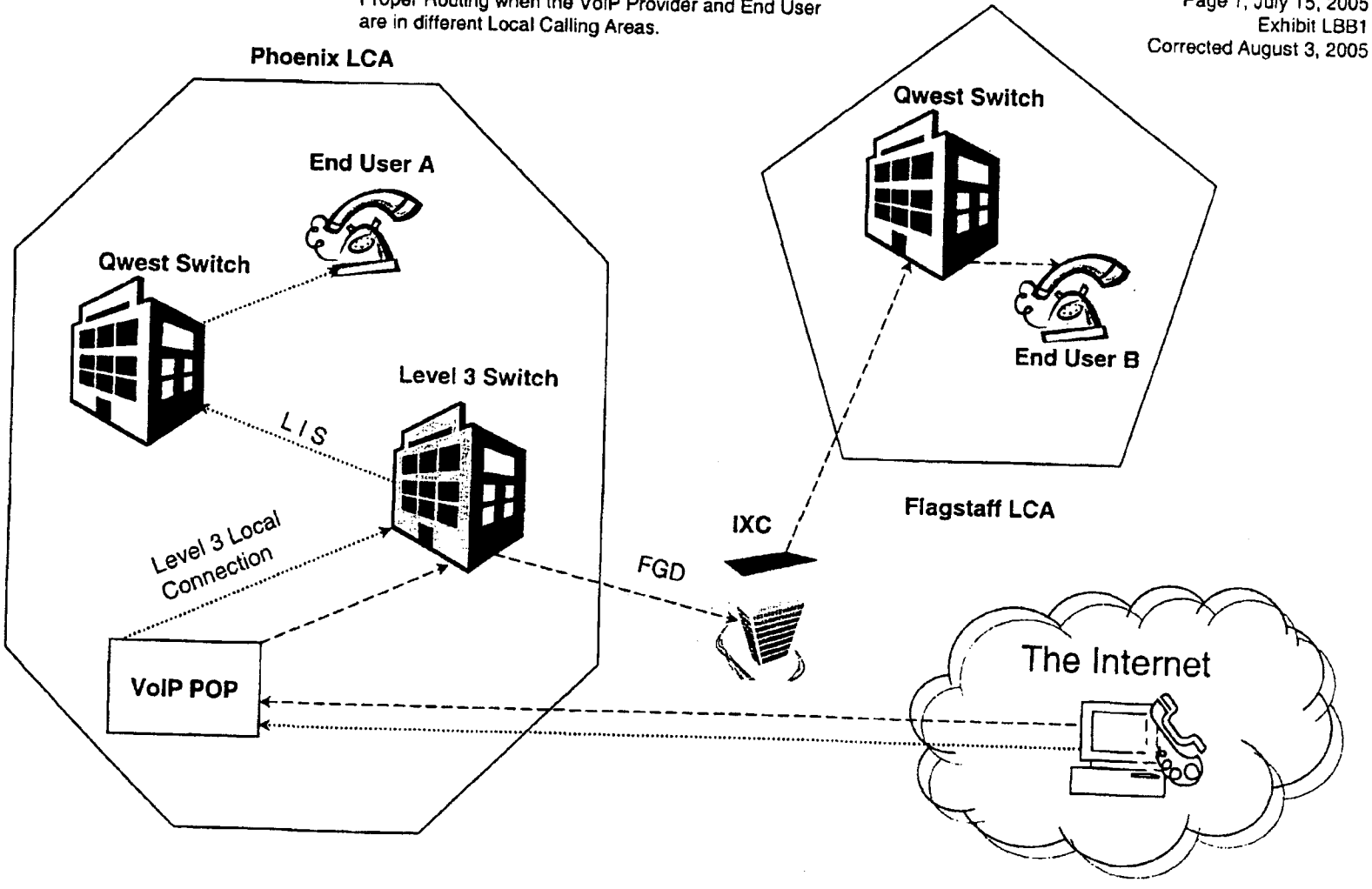
Qwest has brought this issue up elsewhere and has successfully rebutted the 3:1 presumption. In Arizona, because Qwest has not yet brought this matter before the Commission, the Commission has not yet ruled on Qwest's method of identifying ISP traffic. Because Level 3 does not object to the language "Either party may rebut this presumption by demonstrating the factual ratio to the state Commission", Qwest has no objection to the language '~~unless the Commission has previously ruled that Qwest's method for tracking ISP-Bound Traffic is sufficient,~~' being struck.

Q. WHY DOES QWEST OBJECT TO LEVEL 3'S INSERTION OF

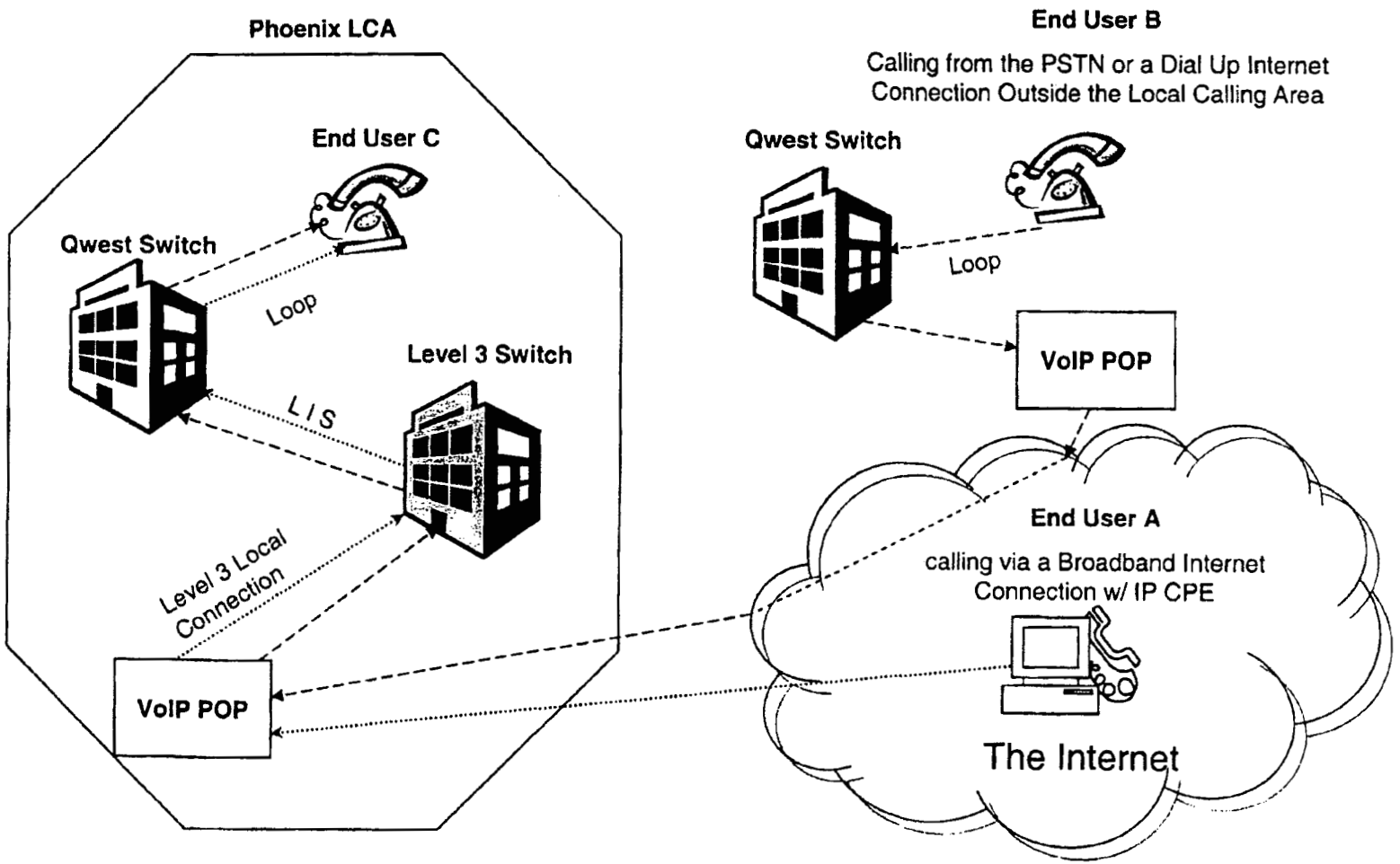
[25] *ISP Remand Order, ¶ 79.*

Proper Routing of Valid VoIP Calls

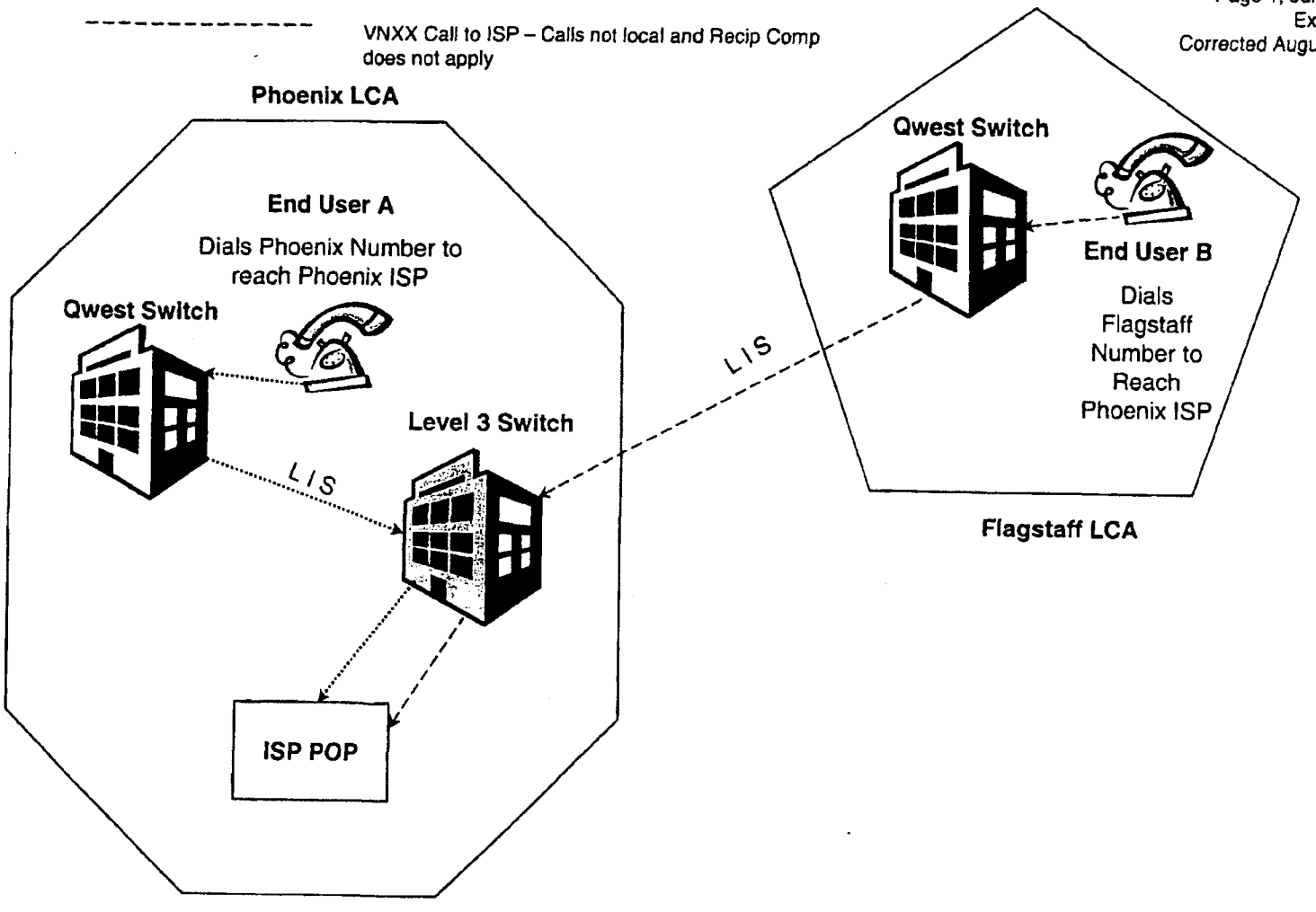
Arizona Corporation Commission
Docket No. T-03654A-05-0350, T-01051B-05-0350
Qwest Corporation
Direct Testimony of Larry B. Brotherson
Page 1, July 15, 2005
Exhibit LBB1
Corrected August 3, 2005



Examples of VoIP Calls



VNXX Routing



COMPLETE
CORRECTED COPY

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
MARC SPITZER
Commissioner
WILLIAM A. MUNDELL
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	)	Docket No. T-03654A-05-0350
PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	T-01051B-05-0350

DIRECT TESTIMONY OF LARRY B. BROTHERSON

ON BEHALF OF

QWEST CORPORATION

(Disputed Issue Nos. 1a, 3, 4, 10, 11, 12, 14, 15, 16, 19)

JULY 15, 2005
CORRECTED AUGUST 3. 2005

CONTENTS

I IDENTIFICATION OF WITNESS 1

II. PURPOSE OF TESTIMONY 2

III. EXECUTIVE OVERVIEW 5

IV. ISSUE 16: DEFINITION OF VOIP 7

V. ISSUE 1A: SECTION 7.1.1.1 OPERATION AUDITS 32

VI. ISSUE 1A: SECTION 7.1.1.2 CERTIFICATION 37

VII. ISSUE 3: VNXX TRAFFIC 40

VIII. ISSUE 4: COMPENSATION FOR VOICE AND VOIP TRAFFIC 60

IX. ISSUE 19: ISP BOUND 3:1 RATIO, SECTION 7.3.6.2 62

X. ISSUE 10: DEFINITION OF INTERCONNECTION 66

XI. ISSUE 11: DEFINITION OF INTEREXCHANGE CARRIER 67

XII. ISSUE 12: DEFINITION OF INTRALATA TOLL TRAFFIC 70

XIII. ISSUE 9: DEFINITION OF EXCHANGE ACCESS 71

XIV. ISSUE 14: DEFINITION OF EXCHANGE SERVICE 71

XV. ISSUE 15: DEFINITION OF TELEPHONE TOLL SERVICE 72

I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH QWEST.

A. My name is Larry B. Brotherson. I am employed by Qwest Corporation (Qwest) as a Director Wholesale Advocacy in the Wholesale Markets organization. My business address is 1801 California Street, Room 2350, Denver, Colorado, 80202.

Q. PLEASE DESCRIBE YOUR EMPLOYMENT BACKGROUND.

A. Since joining Northwestern Bell Telephone Company in 1979, I have held several positions within Northwestern Bell, U S WEST Communications, and Qwest. Most of my responsibilities and assignments have been within the Law Department. Over the past 20 years, I have been a state regulatory attorney in Iowa, a general litigation attorney, and a commercial attorney supporting several organizations within Qwest. My responsibilities have included advising the company on legal issues, drafting contracts, and addressing legal issues that arise in connection with specific products. With the passage of the Telecommunications Act of 1996 (the Telcom Act), I took on responsibility for providing legal advice and support for Qwest's Interconnection Group. In that role, I was directly involved in working with competitive local exchange carriers (CLECs). I negotiated interconnection agreements with CLECs that implemented various sections of the Act, including the Act's reciprocal compensation provisions. In 1999, I assumed my current duties as director of wholesale advocacy. My current responsibilities include coordinating

the witnesses for all interconnection arbitrations and for hearings involving disputes over interconnection issues. Additionally, I work with various groups within the Wholesale Markets organization of Qwest to develop testimony addressing issues associated with interconnection services.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I received a Bachelor of Arts degree from Creighton University in 1970 and a Juris Doctor degree from Creighton in 1973.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. This arbitration docket will address numerous disputed paragraphs to be incorporated into the interconnection agreement between the parties. The purpose of my testimony is to support the adoption of Qwest's proposed language relating to several of the specific issues that Qwest and Level 3 have not been able to reach agreement on. Specifically, I will explain Qwest's positions, and the policies underlying these positions.

Although there are many sub-issues, there are three major areas of dispute between Level 3 and Qwest.

First, Level 3 and Qwest disagree on a variety of issues related to VoIP (Voice over Internet Protocol), including the definition of VoIP; whether (assuming traffic is properly categorized as VoIP traffic) interexchange calls between local calling areas ("LCAs") are exempt from access charges if the call is

ultimately from a VoIP provider; how and under what circumstances access charges or reciprocal compensation apply to VoIP traffic; the proper routing of VOIP traffic, and other issues.

Second, Level 3 and Qwest disagree on the treatment of and compensation for VNXX traffic (traffic that does not originate and terminate in the same LCA, even though the telephone numbers of the called and calling parties would lead the calling party to believe the call was a local call).

Finally, Level 3 and Qwest disagree on the proper type of and responsibility for the trunks carrying toll traffic and how Qwest should be compensated for the use of its network.

My testimony will address the first two issues relating to VoIP and VNXX. Mr. Easton will address Level 3's reluctance to place toll traffic on Feature Group D ("FGD") trunks and pay Qwest for the use of its network. Mr. Linse will address network issues related to all three areas.

Q. HOW HAVE YOU ORGANIZED YOUR TESTIMONY?

A. During the negotiation period, Qwest provided Level 3 with a matrix similar in format to others it has used in many other arbitrations with CLECs. The matrix showed Qwest's proposed language, and then incorporated Level 3's proposed additions in a strikethrough format. Because the Qwest proposed matrix also followed the contract numbering order, issues dealing with paragraph 5.2 would be addressed before issues dealing with paragraph 6.4 or 7.1. Level 3 objected to this

format and proposed its own matrix and format. In an effort to advance the negotiations, Qwest agreed to the use of Level 3's matrix format. Unfortunately, the structure that Level 3 uses in its matrix format is difficult to follow.

Level 3 groups contract paragraphs into what it has characterized as "Tier 1" issues and "Tier 2" issues. In Level 3's words, Tier 2 issues are "derived" from Tier 1 issues. Therefore, the language sections in Level 3's matrix do not flow in the order of the disputed issues in the contract; instead they follow the order in the tier structure. Level 3 is, of course, free to use the format it prefers; however, in order for me to respond to Level 3's issues in an orderly sequence, it is necessary to address the competing language in a different order so that necessary pre-requisite issues are dealt with first. For example, the Level 3 matrix shows the first issue dealing with VOIP as language in contract sections 7.1.1.1 and 7.1.1.2, which deal with operational audits and certification. Before discussing audits of VoIP, it is obviously necessary to understand what VOIP is, how the FCC describes VoIP, and what disagreements exist between the parties as to the requirements for a call to qualify as VOIP. Therefore, my testimony will start by addressing Issue 16: the definition of VOIP. Only after the Commission understands what each party claims are the proper elements of VoIP, will other VoIP issues be meaningful, such as the issue of the necessity of certification that VoIP traffic complies with the FCC definition of VoIP. My testimony will address each disputed paragraph in the agreement related to VoIP and VNXX even though I address the contract sections in a different order from Level 3's matrix. My testimony will describe the parties' positions for each disputed paragraph and demonstrate why Qwest's language is the

appropriate language and should be adopted by the Commission.

III. EXECUTIVE OVERVIEW

Q. PLEASE PROVIDE A GENERAL SUMMARY OF THE ISSUES YOU ADDRESS IN YOUR TESTIMONY.

A. Although I address a variety of sub-issues, my testimony addresses two major issues that are critical to the interconnection agreement: (1) Voice over Internet Protocol ("VoIP") issues and (2) Virtual NXX ("VNXX") issues.

VoIP Issues:

- The first issue I address is the proper definition of VoIP. True VoIP calls are calls initiated through the use of IP-compatible equipment over a broadband connection. Calls initiated over typical CPE on the public switched telephone network ("PSTN") are not VoIP calls. Through my exhibits, I illustrate valid VoIP calls and describe other calls that Level 3 improperly claims are VoIP.

- I point out that VOIP is treated as an information service under FCC rules, which means that the "ESP exemption" applies to VoIP calls under certain circumstances. Under the exemption, the location of the ESP POP (also referred to as the "VoIP provider POP"), rather than the VOIP customer, is treated as the end user customer for purposes of determining whether a call is local or interexchange. Level 3's position is based on an erroneously broad reading of the "ESP exemption." Contrary to Level 3's position, there is no FCC rule or policy that "exempts" information service providers or calls from the normal rules governing classification of calls as local or interexchange—the rule simply moves the customer premises for analysis purposes from the actual VoIP customer's premises to the location of the ESP POP.

- I comment on a variety of specific language submitted by Qwest and Level 3 related to VoIP issues and demonstrate that Level 3's proposed language would treat all VoIP calls as though they were local. I demonstrate that this is merely a convenient fiction to avoid appropriate intercarrier compensation. When a Qwest end user customer originates a call destined for a remote VoIP POP (that is, a POP located outside of the local calling area ("LCA") of the originating

caller), that call must be treated as an interexchange call for all purposes. Likewise, when Qwest receives a call from a remote VoIP POP for termination in a different LCA that call should also be treated as an interexchange call for all purposes.

- By essentially pretending that VoIP calls from one LCA to another LCA are local calls, Level 3 seeks special treatment for calls that, from the perspective of the PSTN, are no different than other interexchange calls. Level 3's proposals, if adopted, would dramatically undermine existing intercarrier compensation and subject carriers to disparate treatment and would create a windfall for Level 3 at the expense of Qwest's customers.

- Qwest's proposed language treats VoIP calls consistently with current intercarrier compensation plans. Local VoIP calls should be treated like other local calls, including making them subject to reciprocal compensation, while VoIP calls that are interexchange in nature should be subject to appropriate state and federal access tariffs.

VNXX Issues

- I first define VNXX, which is the inappropriate use by CLECs of local telephone numbers that CLECs are able to obtain for calls that are actually terminated to customers (usually ISPs) located in different LCAs than the party making the call.

- I demonstrate that the proper means of determining whether a call is local or interexchange is based on the physical locations of the parties to the call and not, as Level 3 proposes, based on the telephone numbers. Level 3's proposal would result in calls that are interexchange in nature being treated as though they were local calls.

- Level 3's language acknowledges that with VNXX traffic the called and calling parties are in different LCAs. Nevertheless, Level 3 would require treating the call as local and the payment of reciprocal compensation on all VNXX traffic. By, in effect, treating such traffic as local in nature, Level 3 creates a convenient fiction that dramatically changes the distinction between local and interexchange calls. Thus, Qwest would be required to transport large amounts of traffic from distant towns to Level 3 for free, and then be required to pay intercarrier compensation to terminate the traffic. Yet all of this traffic is generated by customers who, for the most part, are calling into ISP customers of Level 3. Such a result would be unfair and inconsistent with current law

including a recent decision of the Commission.

- I describe Qwest's FX service and point out the critical distinctions between FX and VNXX traffic: a Qwest FX customer (1) actually buys a local connection in each of the LCAs it wants local access to at tariffed local exchange rates and (2) bears the full financial responsibility at tariffed rates to transport that traffic from each LCA back to the LCA where the call is answered. Under VNXX, the CLEC does neither.

Other Issues

- I address numerous other issues, most of them definitional in nature, that relate to the VNXX and VoIP issues. In most cases, the Level 3 language is designed to provide special treatment to its VoIP and VNXX traffic, while Qwest's language, which has been adopted in many other interconnection agreements and is consistent with SGAT language approved by the Commission, is designed to treat Level 3's traffic in a manner consistent with how the Commission has determined how local and interexchange traffic should be handled with other carriers.

IV. DISPUTED ISSUE 16: DEFINITION OF VOIP

Q. BEFORE DEALING WITH THE DEFINITIONAL DISPUTES RELATING TO VOIP, PLEASE PROVIDE A BRIEF GENERIC DISCRIPTION OF VOIP.

A. I will begin by describing the manner in which voice communications have taken place on the public switched telephone network (PSTN) for decades. The PSTN is a circuit based, switched network that employs an analog protocol called Time-Division Multiplexing ("TDM") to transmit voice messages. When one customer calls another customer under these circumstances, an actual circuit must be established between the two callers that remains in place for the duration of the call. Thus, when such a call is made, each party's loop is used for the duration of the call

as are the switches and other facilities through which the call is routed. Such calls, because of the physical circuit that must be connected from end to end, are often referred to as "circuit-switched."

Both physically and conceptually, VoIP is different. Rather than being based on an actual physical circuit, VoIP is based on digital packets that are created in a digital format known as Internet Protocol or "IP." Thus, a VoIP call must be initiated by an end user customer in IP through the use of IP compatible equipment,[1] which converts the conversation into multiple digital IP packets of information (each of which represents a small digitized portion of the voice call between the parties). Instead of passing over a single circuit, each packet is capable of independently traveling a different route than other packets. Once the packets are created by the IP-compatible customer premises equipment ("CPE"), they are individually forwarded onto the Internet by routers. As noted, because no specific circuit must be established, a traditional circuit switch is not necessary to establish a circuit and

---

[1] The FCC, in its recent VoIP 911 order, described IP Compatible equipment:

> "The term "IP-compatible CPE" refers to end-user equipment that processes, receives, or transmits IP packets. Users may in some cases attach conventional analog telephones to certain IP-compatible CPE in order to use an interconnected VoIP service. For example, IP-compatible CPE includes, but is not limited to, (1) terminal adapters, which contain an IP digital signal processing unit that performs digital-to-audio and audio-to-digital conversion and have a standard telephone jack connection for connecting to a conventional analog telephone; (2) a native IP telephone; or (3) a personal computer with a microphone and speakers, and software to perform the conversion (softphone).

First Report and Order and Notice of Proposed Rulemaking, *In the Matters of IP-Enabled Services E911 Requirements for IP-Enabled Service Providers*, FCC 05-116, ¶ 24, n. 77 (June 3, 2005) (citations omitted) ("*FCC VoIP 911 Order*").

the packets do not necessarily follow the same path (this is one of the reasons the Internet is often depicted as a cloud rather than a physical connection from one point to another).

Thus, the first distinguishing characteristic of VoIP is that it must be initiated at the end user customer's premises in IP using IP-compatible CPE. The second characteristic is that the VoIP call must be initiated over a broadband connection such as cable modem or DSL that does not pass through the PSTN local switch.

There are two types of VoIP calls that meet these two defining characteristics of VoIP. One of the types is irrelevant to this case, while the other type of VoIP call is at the very center of the VoIP issues before the Commission in this docket.

The first type of VoIP call takes place between two VoIP customers, both served by a broadband connection. The call is, of course, initiated in IP over a broadband connection. When the called party is also a VoIP customer on a broadband connection, the call is never converted into TDM (the language of the circuit-switched PSTN). Instead, the packets are transported over the Internet directly to the called party, where the called party's IP compatible equipment reassembles the packets in the proper order so they become a voice conversation again. The breakdown into IP packets, the transmission of the individual packets, and the reassembly of the IP packets into voice sounds all take place on the Internet or a private IP network. If, as in the foregoing example, a call goes from one IP capable piece of equipment to another IP capable piece of equipment, over broadband connections through transmission IP packets, the call is completed without ever

touching the circuit switched PSTN. Thus, this type of call is a VoIP call, but it does not interconnect with the PSTN in any manner. Because such calls originate and terminate in IP format, they are often referred to as "IP-IP calls." They occur entirely over the Internet, are not exchanged between carriers, and there are therefore no intercarrier compensation or other interconnection issues that result from IP-IP traffic. Such calls are therefore completely irrelevant to the issues in this case.

The second type of VoIP is central to the VoIP issues in this docket. This is a call that is initiated through IP-compatible CPE over a broadband connection, but the called party is not a VoIP customer. Instead, the called party is a typical customer served on the PSTN by a loop attached to a circuit switch and whose CPE is not IP-compatible. In this situation, the exchange of traffic is completely different than in the first type of call. In order to complete the call, the IP packets created by the equipment of the calling party must, at some point (a function of the VoIP provider's equipment) be converted into a TDM voice format, transferred to the PSTN on a connection that will route through circuit switches to the end office serving the customer, and finally sent over the loop to the customer. This type of call, which is often referred to as an "IP-TDM call" because it was originated in IP format and terminated to the PSTN in TDM format, is a VoIP call because it meets the criteria of originating in IP format using IP-compatible CPE over a broadband connection. It is terminated, however, using local switching and loops. This type of call creates intercarrier compensation and other issues that must be dealt with in this docket.

There is a third type of call that, while it is not a VoIP call, is an issue here because of the manner in which Level 3 has defined VoIP traffic. In this type of call, the call is originated in TDM format, but the carrier (most likely for network efficiency reasons) decides to transport the call from two points in IP before reconverting it into TDM for delivery. Although this call was in IP format for part of the transmission, it both originates and terminates in TDM. Such calls are often referred to as "TDM-IP-TDM calls" or as "IP in the middle" calls. Because such calls do not meet the criteria for VoIP described above, they are not VoIP.

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 16.

A. Issue 16 focuses on the appropriate definition of VoIP in the context of the second type of call described above, traffic originating from a VoIP customer in IP that is terminated over the PSTN in TDM. It is this type of traffic that raises issues in this docket. The first type (IP-IP), because it never enters the PSTN, is not addressed by the interconnection agreement.

Q. WITH THAT BACKGROUND, PLEASE DESCRIBE THE ISSUES THAT ARE RAISED BY THE COMPETING VOIP DEFINITIONS.

A. The ultimate issues relate to intercarrier compensation. Qwest's definition centers on two basic issues related to VoIP:

1) What requirements must be met to permit a VoIP provider to terminate calls using a local exchange product for its connection rather than a Switched Access (Feature Group D) connection?

2) Assuming a VoIP provider is qualified to purchase a connection out of the local exchange tariffs, how are calls that terminate within and outside the local calling area ("LCA") in which the VoIP provider is physically located handled?

Q. WHY DOES THE QWEST DEFINITION REQUIRE THAT A VOIP CALL ORIGINATE IN IP OVER A BROADBAND FACILITY USING IP EQUIPMENT IN ORDER TO BE ENTITLED TO TERMINATION THROUGH A LOCAL NETWORK CONNECTION?

A. The first reason is simply that this definition appears to be consistent with the way the FCC has thus far defined VoIP.

The second reason is far more complicated. It relates to a historic category of providers known as "Enhanced Service Providers" or "ESPs." Under current FCC rules (all of which are subject to being changed when the FCC makes its final decisions on these issues) providers of VoIP are considered to be ESPs. ESPs are entitled to terminate calls through a connection to the PSTN purchased from a local tariff under certain circumstances. But a VoIP provider is considered an ESP only if the call meets the fundamental requirements to qualify as VoIP: the call must originate in IP through the use of IP-compatible CPE over a broadband facility. This is the only type of call that meets the definition of VoIP proposed by Qwest and is thus the only type of traffic that qualifies for the ESP exemption.

If a call originates as a voice call on the PSTN and is then terminated as a voice call

on the PSTN, this is a TDM-IP-TDM or "IP in the middle" call, which is subject to typical intercarrier compensation rules: if it is a local call, it is subject to reciprocal compensation; if it is an interexchange (toll) call it is subject to access charges such as Feature Group D. The FCC ruled in the *AT&T Declaratory Ruling* that this type of call is not a VoIP call even if at some point during the call it was converted to IP because, before delivery, it was reconverted to TDM and delivered over the PSTN.[2] Since, in this proceeding, we are only addressing the calls that Qwest is being asked to terminate on the PSTN, the termination of each call is in TDM over the PSTN. Thus, if the call is not originated in IP over a broadband facility, it will be both originating and terminating in traditional PSTN format, thus losing its current status as an enhanced or information service call, and access charges will apply.

Q. YOU MENTIONED THE ESP EXEMPTION. CAN YOU DESCRIBE IT FOR US?

A. First, the ESP exemption is relevant to this docket because, under current rules that are the subject of ongoing FCC consideration, true VoIP service qualifies as an "information service." Thus, VoIP providers served by Level 3 are entitled to receive service pursuant to the ESP exemption, but only in very specific circumstances. All of this ultimately becomes relevant to how VoIP is defined and

[2] Order, *In the Matter of Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 02-361, FCC 04-97, 19 FCC Rcd 7457, ¶¶ 12-13 (April 14, 2004) (ruling that AT&T's service was a telecommunications service and is subject to access charges) ("*AT&T Declaratory Ruling*").

to the intercarrier compensation regime that applies under certain circumstances. Thus, it is important for the Commission to understand the fundamentals of the ESP exemption.

The ESP exemption has a long history with the FCC. It was originally established at the time access charges were established following the Modified Final Judgment (MFJ) that governed the divestiture of the old Bell System. While establishing the access charge regime in use today for all interexchange carriers ("IXCs"), the FCC permitted Enhanced Service Providers ("ESPs") to connect their POP (point of presence) to the local network via local exchange service as opposed to tariffed feature group services that IXCs were (and still are) required to purchase, even though the ESPs used the local exchange facilities for interstate access. The ESP exemption was never really an exemption at all—it was simply a regulatory decision that, for a variety of policy reasons, interstate access by ESPs located within a local calling area ("LCA") would be treated as local for purposes of assessing the correct access charge. Thus, under the exemption, the ESP can order a local service connection to its POP in the same manner as the service can be ordered by other end user customers located within a particular LCA. In other words, under the ESP exemption, the ESP is treated like an end user customer as opposed to an IXC for purposes of obtaining access to a LCA. In that LCA, the ESP can obtain the same business services that any other end user business can obtain on a retail basis. The effect of the exemption, then, is that unlimited calls may be terminated by the ESP within such LCAs and it will be charged typical retail business rates instead of access charges to do so. But that is the extent of the

exemption. For example, to the extent the ESP seeks to terminate calls to customers within the LATA but outside that LCA, the exemption does not apply and they will be handed off to the end user customer's (ESP's) Primary Interexchange Carrier ("PIC") choice for delivery to the other LCA. Exhibit LBB 1 depicts the two examples. In LBB1, I depict the termination of VoIP calls from the Internet through valid routing. When the VoIP provider and the end user customer are in the same LCA, the ESP (Level 3 in the exhibit) obtains a local connection to the network by purchasing Local Interconnection Service ("LIS") in Phoenix. In this example, the call is handed off by the ESP within the Phoenix LCA for termination to a Qwest end user customer also in the Phoenix LCA via the LIS trunk. The exhibit further shows a call where the ESP is within the Phoenix LCA and the Qwest end user customer is located in the Flagstaff LCA. The call is routed through use of the PICed IXC using FGD trunks for termination to the end user customer. This is explained in more detail in the following section.

Q. CAN YOU DESCRIBE THE REQUIREMENT THAT CALLS WITHIN THE LCA WHERE THE VOIP PROVIDER PURCHASES A LOCAL CONNECTION ARE LOCAL AND CALLS BOUND FOR LOCATIONS OUTSIDE THE LCA ARE TOLL?

A. Yes. Under current rules, a voice call between separate LCAs is a toll call and must be treated as such. This rule applies equally to VoIP. Thus, when a call is originated in IP format on IP-compatible equipment and is handed off to Qwest within a LCA where the ESP is located, but the call is being sent for termination to another LCA, the provider is not entitled to free transport to the terminating LCA

under the ESP exemption or on any other basis, nor is it allowed to connect to the terminating LCA as an end user customer under the ESP exemption if it does not have a physical presence in that LCA. Calls of this sort are properly classified as interexchange traffic and must be handed off to an interexchange carrier (IXC), which must connect to Qwest typically via a Feature Group connection. Assuming a call is VoIP, and has been converted from IP protocol to PSTN protocol, the call can be delivered to Qwest over Local Interconnection Service (LIS) trunks if, and only if, the hand off to Qwest is for termination of the call within the same LCA as the VoIP provider's POP. Because the VoIP provider (as an ESP) purchases its connection to the local network as an end user customer, the call will be treated as a local call and no access charges would apply if the call is sent to a party physically located in the same LCA as the VoIP provider's POP. It would also be treated as a local call for purposes of 251(b)(5) reciprocal compensation purposes. If the hand off is for termination at a distant local exchange outside of the LCA where the VoIP POP is located, the call must be delivered to Qwest on FGD for termination to that LCA. The second call example on Exhibit LBB 1 shows a call from a VoIP provider's POP (end user customer) in Phoenix who seeks to complete a call to Flagstaff. In that example the call is handed off to the IXC PICed by the end user customer (or VoIP Provider), and the IXC delivers the call to Flagstaff over Feature Group D. If the VoIP Provider purchases a local connection from its POP to the Qwest local switch in Phoenix, then Qwest's switch will recognize the call to Flagstaff as a toll call and route the call to the appropriate IXC. If the VoIP Provider purchases a local connection from its POP to the Level 3 switch in Phoenix then Level 3's switch is required to route the call to an IXC.

Because the ESP is entitled to purchase a local connection in the Phoenix LCA rather than a FGD connection to terminate VoIP traffic in the Phoenix LCA, the calls from the Phoenix VoIP POP to Phoenix residents are treated as local calls. This is true whether the VoIP provider purchases that local connection from Qwest or Level 3. But the ESP exemption does not extend beyond the LCA in which the ESP has a presence. Thus, calls from a VoIP POP in Phoenix to Qwest end user customers in Flagstaff, or, for that matter, to end user customers in New York or Hong Kong, is required to be routed to an IXC for completion. In those cases, the IXC, not the VoIP provider, will pay access charges associated with transporting and terminating the call. The foregoing examples demonstrate the status of the proper application of the FCC ESP exemption and the proper routing and intercarrier compensation for interexchange calls under current rules.

Q. THE FCC HAS DISTINGUISHED VOIP TRAFFIC THAT CONNECTS TO THE PSTN FROM VOIP TRAFFIC THAT IS TRANSPORTED SOLELY OVER THE INTERNET OR A PRIVATE IP NETWORK. IS THE DISTINCTION RELEVANT TO THE DISCUSSION OF VOIP IN AN INTERCONNECTION AGREEMENT?

A. Absolutely. The FCC has been careful to distinguish VoIP traffic that connects to the PSTN from VoIP traffic that is handled entirely by the Internet, specifically using the term "interconnected VoIP services" to describe "those VoIP services that can be used to receive telephone calls that originate on the PSTN and can be used to

terminate calls to the PSTN."[3] The FCC singled out Interconnected VoIP services because "consumers expect that VoIP services that are interconnected with the PSTN will function in some ways like a "regular telephone" service."[4] Interconnected VoIP service was defined "as bearing the following characteristics: (1) the service enables real-time, two-way voice communications; (2) the service requires a broadband connection from the end user customer's location; (3) the service requires IP-compatible CPE; and (4) the service offering permits users generally to receive calls that originate on the PSTN and to terminate calls to the PSTN."[5] The issues between Qwest and Level 3 with regard to VoIP relate specifically to Interconnected VoIP traffic that is terminated or transmitted to the Qwest network (i.e., to the PSTN).

Q. WHAT IS THE DIFFERENCE BETWEEN QWEST'S AND LEVEL 3'S PROPOSED DEFINITIONS OF VOIP?

A. It is easy to see the distinction between the two company's positions by looking at the language in dispute. Qwest's proposed definition of VoIP traffic for the interconnection agreement with Level 3 is shown in the paragraph below. All of Level 3's proposed changes are in bold face type and the language Level 3 proposes to be deleted is shown as a strikethrough. Where Level 3 seeks to add additional language to the paragraph, the proposal is shown in a bold underlined format.

---

[3] *FCC VoIP 911 Order* ¶ 23.

[4] *Id.*

[5] *Id.* ¶ 24.

> "VoIP" (Voice over Internet Protocol) traffic is traffic that originates in Internet Protocol ~~at the premises of the party making the call~~ using IP-Telephone handsets, ~~end user premises~~ Internet Protocol (IP) adapters, CPE-based Internet Protocol Telephone (IPT) Management "plug and play" hardware, IPT application management and monitoring hardware or such similar equipment and is transmitted over a broadband connection to **or from** the VoIP provider. ~~**VoIP is treated as an Information Service, and is subject to interconnection and compensation rules and treatment accordingly under this Agreement based on treating the VoIP Provider Point of Presence ("POP") as an end user premise for purposes of determining the end point for a specific call. Thus, CLEC is permitted to utilize LIS trunks to terminate VoIP traffic under this Agreement only pursuant to the same rules that apply to traffic from all other end users, including the requirement that the VoIP Provider POP must be in the same Local Calling Area as the called party**~~

Qwest's definition is pictorially illustrated in Exhibit LBB2 attached to this document.

Q. WHAT IS THE EFFECT OF LEVEL 3'S DELETIONS FROM QWEST'S PROPOSED LANGUAGE?

A. By making these deletions, Level 3 is asking the Arizona Commission to dramatically modify the FCC prescribed method of treating ESPs. The FCC made its position very clear in the ESP Exemption order:

> "Under our present rules, enhanced service providers are treated as end users for purposes of applying access charges. See 47 C.F.R. § 69.2(m); *Northwestern Bell Telephone Company Petition for a Declaratory Ruling, Memorandum Opinion and Order, 2 FCC Rcd 5986, 5988 at para. 20 (1987),* appeal docketed, No. 87-1745 (D.C.Cir. Dec. 4, 1987). Therefore, enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connections to local exchange company

central offices."[6]

The FCC was clear on how an ESP would be treated. Level 3's language is a direct attempt to avoid the FCC's ruling. Level 3 seeks to delete Qwest's language in an explicit attempt to avoid access charges when a call is between two LCAs (i.e., avoid access charges on calls that are clearly interexchange in nature). The Qwest language that states that the VoIP Provider's POP will be treated as an end user customer must be incorporated into the agreement because that is precisely the manner in which the ESP exemption operates (under the exemption, the ESP is treated as an end user customer). Thus, Qwest's language that the VoIP Provider's POP will be considered as an end user customer for purposes of determining the end points of the call is essential in order to resolve any doubt that if the call is transported to another LCA in the LATA, to another LATA, to another state, or to another country, the call must be delivered to an IXC and the IXC that transports the call will be responsible for access charges. Otherwise, the interconnection agreement will enable Level 3 to provide a service to ESPs (or to itself acting as an

[6] Order, *In the Matter of Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, 3 FCC Rcd 2631, ¶ 2, n.8 (1988) ("*ESP Exemption Order*"). *See also id.* ¶ 20, n. 53 ("Thus, the current treatment of enhanced service providers for access charge purposes will continue. At present, enhanced service providers are treated as end users and thus may use local business lines for access for which they pay local business rates and subscriber lines charges. To the extent that they purchase special access lines, they also pay the special access surcharge under the same conditions as those applicable to end users.").

ESP) that gives it access to Qwest's entire network essentially free of charge to terminate IXC traffic.

As Qwest understands Level 3's proposal (which essentially treats *all* VoIP traffic as though it were local traffic), Qwest would receive reciprocal compensation for terminating such traffic. The reciprocal compensation rate, of course, is dramatically less than FGD rates and was never designed for the termination of interexchange traffic (reciprocal compensation traditionally applies to the termination of local traffic only). Thus, Level 3's proposal would result in a fundamental restructure of intercarrier compensation on traffic that, other than the manner in which it originates, looks precisely the same to the PSTN as any other interexchange traffic. As the Commission reviews this matter, Qwest suggests that it refuse to consider such an elemental change in intercarrier compensation. To the PSTN, there is no difference between a typical interexchange call that terminates on the PSTN (and is therefore subject to appropriate access charges) and a VoIP originated call that, once it is converted into TDM, is placed on the PSTN for termination. Qwest is unaware of any good reason, let alone a compelling reason, to treat these calls in a completely different manner for intercarrier compensation purposes. Level 3's proposal should, therefore, be rejected.

For traffic to meet Qwest's VoIP definition, it must originate in IP; otherwise it is simply another call originated in TDM that terminates in TDM. Consistent with the

FCC's ruling discussed above and in more detail below, Qwest's definition requires that the call originate in IP using IP CPE and be transmitted over a broadband connection to the VoIP Provider. Unless it meets these requirements it will fail to meet the criteria of the FCC in the AT&T case discussed above, where the FCC rejected AT&T's effort to avoid access charges on calls that originate and terminate in TDM.

Qwest's definition also identifies VoIP is an "information service," a contention that Level 3 does not appear to challenge. Designating VoIP as an information service in Qwest's definition makes the PSTN portion of the service subject to interconnection and compensation based on treating the VoIP Provider's POP as an end user customer's premises. Therefore, LIS trunks may be used to terminate VoIP traffic based on rules that apply to other end user customers, including the requirement that the VoIP Provider's POP (served by Level 3) where the VOIP traffic is delivered to the public network be physically located in the same LCA as the called party. Other types of VoIP calls can also be delivered to Qwest for termination, of course, but since they do not qualify for the ESP exemption, such traffic should be classified as toll traffic and all existing access rules are applicable to it.

Q. WHAT IS THE EFFECT OF LEVEL 3'S FIRST TWO CHANGES?

A. Level 3 attempts to remove the requirement that the call *originate* at the end user premises and to strike the words "end user premises" when referring to "end user customer's premises IP adapters." Origination *at the end user premises* in IP is a critical requirement that must remain in the agreement. The rationale for Level 3's

effort to delete this requirement from the definition is far from clear (it certainly did not make it clear in its Petition), but it is an essential piece of the definition of VoIP. First, under the ICA, these calls will terminate on the Qwest local network (the PSTN). As mentioned above, when an end user customer call is originated on the PSTN, routed over PSTN loops to a PSTN switch, and Level 3 terminates the same call on the PSTN, that call does not qualify as an enhanced or information service. It is irrelevant that a VoIP provider may have converted it to IP protocol in the middle for some distance. A call not originating over broadband in IP does not meet the requirements for the FCC ESP exemption. The FCC made this perfectly clear in 2004 in its Phone-to-Phone IP exemption decision (the "*AT&T Declaratory Order*"), where the FCC determined that a service that begins on the PSTN and ends on the PSTN, even though it may use the Internet for a portion of the transport of that service, offers no net protocol conversion, and is therefore a telecommunications service (as opposed to an information service):

> "The service at issue in AT&T's petition consists of an interexchange call that is initiated in the same manner as traditional interexchange calls—by and end user who dials 1+ the called number from a regular telephone. When the call reaches AT&T's network, AT&T converts it from its existing format into an IP format and transports it over AT&T's Internet backbone. AT&T then converts the call back from the IP format and delivers it to the called party local exchange carrier (LEC) local business lines. We clarify that, under the current rules, the service that AT&T describes is a telecommunications service upon which interstate access charges may be assessed. We emphasize that our decision is limited to the type of service described by AT&T in this proceeding, i.e. an interexchange service that: (1) uses ordinary customer premises equipment (CPE) with no enhanced functionality; (2) originates and terminates over the public switched telephone network (PSTN); and (3) undergoes no net protocol conversion and provides no enhanced functionality

to end users due to the providers use of IP technology."[7]

Thus, if Level 3 delivers an IP long distance call to Qwest for termination on Qwest's PSTN and the call did not originate in IP over a broadband connection, the FCC has ruled that such a call is not exempt from access charges. If, however, the call originates in IP (using the appropriate IP equipment) over a broadband connection, and is then converted into traditional TDM protocol for termination on the PSTN to a local telephone number, there has been a *net protocol conversion* and the call qualifies as an enhanced or information service. Since the terminating end, the call being delivered to Qwest for termination is always in TDM protocol, it *must* originate in IP at the originating end user customer premises in order to be exempt. Originating in IP can only occur over a broadband connection. If it both originates and terminates in the PSTN protocol it is not an enhanced or information service under the FCC's rules. Qwest's definitional language makes it clear that VoIP:

> "originates in Internet Protocol **at the premises of the party making the call** using IP-Telephone handsets, **end user premises** Internet Protocol (IP) adapters, CPE-based Internet Protocol Telephone (IPT) Management "plug and play" hardware, IPT application management and monitoring hardware or such similar equipment and is transmitted over a broadband connection to the VoIP provider."

Qwest's language requiring that the call originate at the end user customer's premises in broadband is also an absolute necessity if the call is to be treated as an enhanced or information service and thus entitled to the ESP exemption. Any

[7] *AT&T Declaratory Order*, ¶ 1.

attempt by Level 3 to remove this requirement from the contract will, in effect, modify the ESP exemption and authorize it to do what the FCC said AT&T could not do: take simple calls that originate on the PSTN, deliver them to Qwest in another LCA, terminate the call on the PSTN, and claim the call is exempt from access charges. Thus, Level 3's first two strikethrough proposals must be rejected. The call must originate over broadband in IP to be an enhanced or information services VoIP call.

Next, Level 3 proposes some perplexing language to the VoIP definition regarding traffic direction, wanting it to read that VoIP may be "transmitted over a broadband connection to **or from** the VoIP provider". What these additional terms mean is not clear. For example, calls delivered to Qwest from a VoIP provider for termination will go through a Qwest switch and over a loop connected to that switch for termination on the PSTN to a traditional telephone. However, a call **from** the VoIP provider that transits directly to a VoIP end user customer over broadband will not go through a public network switch and thus, the PSTN is not used to complete the call.[8] As such, Qwest would not be involved in switching the call on the PSTN and Level 3's proposed language is inappropriate. I am unaware of any other situation or scenario in which a call would come *from* the VoIP provider in broadband that would involve Qwest or the PSTN. These first two changes go to the heart of what is a VoIP call. They make clear what type of calls an ESP is entitled to purchase access to the public network from the Qwest (or Level 3) local tariff as an enhanced

[8] The call may use Qwest facilities, but not for termination; for example, if the end user leases a direct broadband connection to the VoIP provider.

service and not through FGD, as prescribed by the FCC. Qwest's language is critical to the definition and accurately limits the ESP exemption to only qualified situations. It must be adopted.

Q. WHAT IS THE THIRD CHANGE THAT LEVEL 3 PROPOSES TO THE QWEST DEFINITION OF VOIP?

A. Level 3 proposes to strike the entire remaining language from the definition. This language describes how VoIP traffic will be treated under the interconnection agreement as well as establishing the interconnection compensation rules that apply to VoIP traffic. However, while Qwest believes this language is critical and must be incorporated into the interconnection agreement, Qwest is amenable to placing the language in the main section of the agreement. Regardless of where it is placed, Qwest strongly believes language for the treatment of VoIP traffic is necessary to avoid future disputes.

Q. HOW DO YOU PROPOSE TO INCLUDE THIS LANGUAGE IN THE AGREEMENT?

A. Section 7.2 of the Interconnection Agreement addresses exchange of traffic. A subset of that section, 7.2.2, discusses the terms and conditions for the exchange of traffic. The terms and conditions describing the exchange of VoIP traffic should be located in the next available subsection, 7.2.2.12. I propose the remaining language from the definition of VoIP above be inserted under Section 7.2 as follows:

> 7.2.2.12 VoIP Traffic. VoIP traffic as defined in this agreement shall be treated as an Information Service, and is subject to interconnection and

compensation rules and treatment accordingly under this Agreement based on treating the VoIP Provider Point of Presence ("POP") is an end user premise for purposes of determining the end points for a specific call.

> 7.2.2.12.1 CLEC is permitted to utilize LIS trunks to terminate VoIP traffic under this Agreement only pursuant to the same rules that apply to traffic from all other end users, including the requirement that the VoIP Provider POP must be in the same Local Calling Area as the called party.

Q. LEVEL 3 OBJECTS TO THE REQUIREMENT THAT THE VOIP PROVIDER POINT OF PRESENCE (POP) BE CONSIDERED AN END USER CUSTOMER FOR PURPOSES OF DETERMINING THE END POINTS OF A CALL. CAN YOU COMMENT?

A. The language requiring that the VoIP POP be considered an end user customer was a portion of the definitions moved into the body of the agreement at 7.2.2.12. Level 3's definition deletes that language. The language is critically important due to the ESP Exemption, and must be included somewhere in the agreement. Since both Level 3 and Qwest agree that the traffic that is handed off to the public network from the VoIP POP arrived over the Internet and is an alternative to traditional IXC traffic, the only real question is whether or not the VoIP provider must purchase FGD to terminate its calls. In answer to that question, the FCC has said no. *If* the VoIP provider is acting as an ESP, it is entitled to purchase its connection out of the local exchange tariffs and obtain local service *within the LCA where it is physically located.* In this respect, the ESP is treated as any other end user customer.

Q. BASED UPON THESE FACTS WHAT SHOULD THE COMMISSION DO

WITH RESPECT TO ISSUE 16, DEFINITION OF VOIP?

A. For all the reasons stated above, the Commission should adopt Qwest's proposed definition of VoIP that includes the requirement that the call must originate at the premises of the party making the call, through the use of IP-compatible CPE, over a broadband circuit in IP to avoid the scenario of calls the both originate and terminate as PSTN calls. Further, consistent with the proper criteria for VoIP and with the FCC's ESP Exemption, neither PSTN to PSTN calls are VoIP and are not entitled to the ESP exemption under FCC decisions. Qwest's proposed language for Sections 7.2.2.12 and 7.2.2.12.1, make clear that VoIP traffic ***as defined in this agreement*** will be treated as an information service, will be entitled to the ESP exemption, and the VoIP providers POP will be treated as an end user customer's premises for purpose of determining the end points of a call. This will ensure that the intrastate access regime as currently approved by this Commission is not changed at this time. The Commission, therefore, should adopt Qwest's proposed language.

Q. PLEASE SUMMARIZE QWEST'S BASIC POSITIONS ON VOIP.

A. The first issue is the proper definition of VoIP. Consistent with FCC decisions, there are two key essential features that must be present for a VoIP call: (1) the call must originate on IP-compatible CPE (both Qwest's and Level 3's language provides greater detail on the proper description of such CPE) and (2) it must also originate on a broadband connection, such as DSL, cable modem, or other equivalent high-speed connection to the Internet. If these two criteria are not met,

then the call cannot be deemed to be VoIP.

In the context of that definition, three types of calls must be considered: (1) calls that meet the criteria for VoIP traffic that are terminated to another VoIP customer who likewise has IP-compatible CPE and served over a broadband connection (commonly referred to as IP-IP traffic); (2) calls that meet the criteria for VoIP traffic, but which are terminated to a customer served on the PSTN on a telephone line to a customer that uses traditional telephone CPE (commonly known as IP-TDM traffic); and (3) traffic that originates in TDM but which is converted to IP at some point and then converted back to TDM for delivery to the called party (commonly known as "TDM-IP-TDM" or "IP in the middle" traffic).

Q. PLEASE ADDRESS EACH TYPE OF TRAFFIC AND DESCRIBE QWEST'S POSITION AS TO THE PROPER TREATMENT OF EACH UNDER THE INTERCONNECTION AGREEMENT.

A. I will first address IP-IP traffic. This type of traffic clearly meets the criteria for VoIP. However, because both the calling and called parties are VoIP customers served by broadband connections, the call remains in IP, is transported entirely over the Internet, and never enters the PSTN. Thus, it is not relevant to the interconnection agreement at issue in this docket.

Q. PLEASE DISCUSS IP-TDM TRAFFIC.

A. From Qwest's perspective, this is the only VoIP traffic at issue in this docket. IP-TDM traffic meets the criteria for VoIP traffic because it is originated with IP-compatible CPE over a broadband connection.

There is really only one specific implication of the status of IP-TDM traffic as VoIP traffic that distinguishes it from the rules that apply to other traffic. That is the application of the so-called ESP exemption. Both parties agree that, until the FCC definitively rules on the issue, VoIP will be treated as an "information service" under the Act. Thus, under certain circumstances, the provider of true VoIP service is classified as an ESP and, where applicable, qualifies for the exemption. While it is unclear from the Level 3 Petition, Level 3 appears to believe the exemption applies much more broadly than Qwest believes it does. Under the proper application of the exemption, a VoIP provider is treated as an end user customer for purposes of access to a LCA in which the VoIP provider maintains a point of presence ("POP"). Level 3, however, appears to believe that, either through the application of the ESP exemption or for some other undisclosed reason, VoIP providers are entitled to LATA-wide exemption from access charges. Qwest adamantly opposes that position on both legal and policy grounds. Thus, for purposes of termination of IP-TDM traffic in the LCA in which the VoIP provider POP is located, the VoIP provider is allowed to terminate that traffic with Qwest

through the same types of retail services available to other business end user customers as opposed to being required to originate and terminate traffic through access charges. But that is the full extent of application of the exemption.

Thus, for all other applications of intercarrier compensation, the same rules that apply to all other traffic apply to IP-TDM traffic. Rather than determining the application of these rules from the physical location of the VoIP end user customer that actually originates the call, the VoIP provider POP is treated as the end user location. Thus, as explained in the next section, if the VoIP provider POP is physically located in the same LCA as the called party, the call is treated as local, and reciprocal compensation would apply. Likewise, if the VoIP provider POP is in a different LCA from the called party, the call is an interexchange call that should be handed off to the IXC selected by the end user customer, which transports the call to the LCA of the called party, where Qwest terminates it to its end user customer. The IXC would pay the appropriate access charges to terminate the traffic.

In summary, under Qwest's proposed language, other than for the application of the ESP exemption, IP-TDM traffic should be treated in the same manner as other similar traffic. Level 3 appears to propose that these traditional means of intercarrier compensation be completely scrapped in favor of treating all VoIP as though it were local traffic. Thus far, Level 3 has not offered any compelling legal

reason why VoIP should be given special treatment. There is certainly no good policy reason. It is easy to see why Level 3 wants to change the compensation scheme in such a radical manner; it would allow Level 3 or its VoIP provider customers to avoid charges that other identically-situated carriers must pay. Qwest strongly opposes such an approach.

Q. PLEASE DISCUSS TDM-IP-TDM (IP IN THE MIDDLE) TRAFFIC.

A. While Level 3 also appears to seek special treatment for this traffic, it should not be. Because this traffic originates in TDM, it does not meet the criteria for VoIP traffic. Therefore, as the FCC clearly ruled in the AT&T decision, this traffic is not VoIP, is not an information service (and thus does not qualify for the ESP exemption), and therefore is not exempt from access charges that apply to other carriers in identical circumstances. Thus, Qwest's language treats this type of traffic no different than any other TDM originated traffic for intercarrier compensation purposes. The Commission should reject Level 3's efforts to remove this traffic from existing intercarrier compensation rules and should adopt Qwest's language.

V. DISPUTED ISSUE 1A: SECTION 7.1.1.1 OPERATION AUDITS

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 1A ?

A. This dispute first highlights the reason that I am addressing the issues in a different order than that presented by Level 3. In its petition and matrix, Level 3 lists issue 1A as the first of its Tier 1 issues. This single issue number, 1A, has three Qwest

proposed paragraphs, and six Level 3 proposed paragraphs even though in some instances, they have the same number; for example 7.1.1.1, the two paragraphs are totally unrelated and deal with totally different issues. My testimony in this section will deal with two of the Qwest proposed paragraphs, 7.1.1.1 Verification audits, and 7.1.1.2 VoIP certification. Although this is listed as the first issue on Level 3's matrix, an understanding of the parties disagreement over what VoIP is, which I discussed above in issue 16, is necessary to understand the dispute about the language of 7.1.1.1. The third Qwest proposed paragraph in issue 1A is 7.1.1, which deals with points of interconnection. Mr. Easton's and Mr. Linse's will address that in their testimony along with the six Level 3 proposed paragraphs in issue 1A.

Q. WHAT IS QWEST'S PROPOSED LANGUAGE FOR 7.1.1.1?

A. Qwest's proposal for section 7.1.1.1 of the interconnection agreement states:

> 7.1.1.1. CLEC agrees to allow Qwest to conduct operational verification audits of those network elements controlled by CLEC and to work cooperatively with Qwest to conduct an operational verification audit of any other provider that CLEC used to originate, route and transport VoIP traffic that is delivered to Qwest, as well as to make available any supporting documentation and records in order to ensure CLEC's compliance with the obligations set forth in the VoIP definition and elsewhere in this Agreement. Qwest shall have the right to redefine this traffic as Switched Access in the event of an "operational verification audit failure". An "operational verification audit failure" is defined as: (a) Qwest's inability to conduct a post-provisioning operational verification audit due to insufficient cooperation by CLEC or CLEC's other providers, or (b) a determination by Qwest in a post-provisioning operational verification audit that the CLEC or CLEC's end users are not originating in a manner consistent with the obligations set forth in the VoIP definition and elsewhere in this Agreement.

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL FOR SECTION 7.1.1.1?

A. This is somewhat confusing. Apparently because Level 3 does not believe there should be any provision in the contract for audits to assure the traffic is VoIP, Level 3 offers no changes to Qwest's proposed language and simply wants it stricken. Since Level 3 presumably believes the Qwest language will be stricken, Level 3 went ahead and used the 'available' number 7.1.1.1 to introduce an unrelated issue dealing with single point of interconnection (SPOI). My testimony will address the Qwest proposed 7.1.1.1 dealing with verification audits of VoIP traffic and which will require Commission resolution and a decision on the situations in which Qwest's 7.1.1.1 is acceptable. Mr. Easton's testimony will address the SPOI issue. In addressing the dispute with Level 3 over the SPOI, he will address the second proposed paragraph numbered 7.1.1.1 (Level 3's SPOI language).

Q. WHAT IS THE DISPUTE WITH REGARD TO QWEST'S PROPOSED PARAGRAPH 7.1.1.1?

A. Level 3 seeks to strike Qwest language which is necessary so that Qwest can verify that the traffic that Level 3 identifies as VoIP traffic is valid VoIP traffic entitled to the ESP exemption. Determining whether the traffic is proper VoIP traffic has implications for a determination of whether it is local or interexchange for the application of the appropriate intercarrier compensation regime. Thus, the proper classification of traffic impacts the compensation obligations of both Qwest and Level 3. Only traffic that qualifies as an Enhanced or Information Service is entitled to the FCC's ESP exemption. Only VoIP traffic that originates on broadband in IP can be terminated on the PSTN in TDM protocol under the ESP

Exemption. Thus, verification is critical.

First, the Qwest proposed language gives Qwest the right to do a verification audit to assure that the VoIP traffic being delivered to Qwest for termination complies with the definition and obligations of VoIP in this agreement. As discussed above, the definition of VoIP is strongly disputed. Second, the contract makes clear that when traffic does not qualify for the ESP exemption, an exemption that alleviates the requirement to purchase switched access connections to the local network, that Qwest has the right to redefine the non-qualifying traffic as Switched Access. If the traffic does not qualify for the ESP exemption, then the only other connection to the PSTN available is a Feature Group connection such as FGD.

Q. WHAT IS THE FUNDAMETAL DISPUTE RELATED TO THIS LANGUAGE?

A. Qwest and Level 3 are not in agreement regarding intercarrier compensation for VoIP traffic that does not originate and terminate at physical locations within the same LCAs. The VoIP compensation issue will be discussed in more detail in Issue 3B of my testimony regarding compensation for ISP Traffic. Level 3 apparently does not agree that Qwest has the right to recognize VoIP traffic as Switched Access in the event of an "operational verification audit failure," because Level 3 takes the position that Switched Access rates should never apply to VoIP traffic, no matter where it originates or terminates.

Q. DOES QWEST BELIEVE THAT OPERATIONAL AUDITS ARE

NECESSARY?

A. Absolutely. Qwest believes that audits are necessary to verify the jurisdiction of a call by ensuring that a VoIP call is properly classified for billing purposes according to the location of the originating and terminating points of the PSTN portions of the call. Qwest also believes that audits are necessary to ensure that calls that are classified as VoIP are properly identified as VoIP calls in compliance with the FCC's definition of VoIP, which is the basis of Qwest's proposed definition of VoIP. Again, as discussed above, Level 3's definition of VoIP does not conform to the definition provided by the FCC.

Q. DOES LEVEL 3 OFFER ANY OTHER SOLUTION THAT WOULD ENABLE QWEST TO IDENTIFY VOIP TRAFFIC?

A. No. While Level 3 does not address audits for VoIP traffic, it does state in its Petition that approval of Level 3's proposed definition of "call record" would allow the Parties to identify and account for the exchange of such traffic in a relatively easy process. I can only assume that Level 3 believes such call records are sufficient verification. As Mr. Linse addresses in his testimony, there is no technical way to identify VoIP today, and reliance on an optional parameter input by Level 3 is not a solution. Qwest has also found with CLECs in the past, through sampling, that even though some call records indicate a local call, the call in fact has been a toll call, and the records did not indicate that access charges were applicable.

Q. HAVE THE PARTIES AGREED TO AUDIT PROVISIONS ELSEWHERE

IN THIS CONTRACT?

A. Yes. As a matter of fact, an entire section, Section 18, of the agreement is devoted to the procedures for auditing "books, records, and other documents used in providing services under this Agreement."[9] In addition to the provisions of Section 18, the parties have agreed to audit provisions for safety audits,[10] service eligibility audits for high capacity combination or commingled facilities,[11] Qwest's loop information,[12] and a comprehensive audit of Qwest's use of CLEC's Directory Assistance Listings.[13]

Q. HAS LEVEL 3 PROPOSED OTHER AUDIT PROVISIONS?

A. Yes. In Level 3's proposed Section 7.3.9, which is covered under Disputed Issue 18, Level 3 includes proposed section 7.3.9.5.1 for auditing of company factors. As a matter of principle, and as evidenced by the provisions the parties have agreed to, Qwest does not oppose the inclusion of audit provisions, and the audit provision included in disputed issue 18 is not the reason that Qwest opposes Level 3's proposed language, as Mr. Easton will explain. It is apparent from Level 3's proposal and from the agreed upon language elsewhere in this contract Level 3 does not oppose audits in general. But for reasons yet to be explained, Level 3 opposes

---

[9] See Section 18.1.1 of the agreed to language in the proposed contract.

[10] See Section 8.2.3.10 of the agreed to language in the proposed contract.

[11] See Section 9.1.1.10.5 et seq. of the agreed to language in the proposed contract.

[12] See Section 9.2.2.8 of the agreed to language in the proposed contract.

[13] See Section 10.5.2.10.1 of the agreed to language in the proposed contract.

the audit provision proposed by Qwest in section 7.1.1.1 dealing with the origination and routing of VoIP calls.

Q. SHOULD THE COMMISSION ADOPT QWEST'S LANGUAGE FOR SECTION 7.1.1.1?

A. Yes. To ensure fair and accurate billing for VoIP traffic, the commission should approve Qwest's proposed language for Section 7.1.1.1.

VI. DISPUTED ISSUE 1A: SECTION 7.1.1.2 CERTIFICATION

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO 7.1.1.2 VOIP CERTIFICATION.

A. The disagreement identified in section 7.1.1.2 is similar to 7.1.1.1. Level 3's Petition is silent on Level 3's opposition to proposed section 7.1.1.2. Qwest's proposed 7.1.1.2 addresses VoIP certification consistent with the VoIP configurations as defined in the agreement. Instead of addressing Qwest's proposed language, Level 3 remains silent on the VoIP certification process and proposes an entirely new section 7.1.1.2 relating to SPOI.

Q. WHAT IS QWEST'S LANGUAGE PROPOSAL THAT RELATES TO THIS ISSUE?

A. Qwest's proposal for section 7.1.1.2 of the interconnection agreement states:

> 7.1.1.2 Prior to using Local Interconnection Service trunks to terminate VoIP traffic, CLEC certifies that the (a) types of equipment VoIP end users will use are consistent with the origination of VoIP as defined in this Agreement; and

(b) types of configurations that VoIP end users will use to originate calls using IP technology are consistent with the VoIP configuration as defined in this Agreement

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL FOR SECTION 7.1.1.2?

A. As was the case with section 7.1.1.1, this gets a bit confusing. Apparently Level 3 opposes any provision in the contract for certification of VoIP traffic. Therefore, Level 3 offers no changes to Qwest's proposed language and instead seeks to eliminate it completely. Since Level 3 presumably assumes the Qwest language will be stricken, Level 3 has used the 'available' number 7.1.1.2 to introduce additional language dealing with single point of interconnection (SPOI). My testimony will address the Qwest proposed 7.1.1.2 dealing with certification of VoIP traffic and which will require Commission resolution one way or the other. Mr. Easton will address the SPOI issue in his testimony.

Q. DOES QWEST BELIEVE THAT CERTIFICATION IS NECESSARY?

A. Yes. As discussed above, Qwest and Level 3 have a fundamental disagreement regarding what qualifies as a VoIP call. Level 3 should be willing (and the Commission should require Level 3) to certify that VoIP traffic that it sends to Qwest meets the definition established by the FCC.

Q. HAVE THE PARTIES AGREED TO CERTIFICATION LANGUAGE ELSEWHERE IN THIS CONTRACT?

A. Yes. There are many certification provisions included in the agreed upon language in this contract. For example, numerous provisions are included in Section 12 requiring Level 3 to certify that its OSS can properly communicate with and submit

orders to Qwest's OSS. In addition, Level 3 must certify that it is entitled to certain high capacity loops or transport UNEs per the Triennial Review Remand Order;[14] Level 3 must certify that it meets service eligibility criteria for high capacity EELs;[15] both parties must certify their service management systems;[16] and Qwest must certify Right of Way ("ROW") agreements to Level 3.[17] Clearly, both parties have agreed to certification obligations elsewhere in this agreement.

Q. SHOULD THE COMMISSION ADOPT QWEST'S PROPOSED LANGUAGE FOR SECTION 7.1.1.2?

A. Yes. The Commission should adopt Qwest's proposed language for section 7.1.1.2.

VII. DISPUTED ISSUE 3 VNXX TRAFFIC

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 3.

A. Level 3 listed three separate issues under Issue 3 denominated as Issues 3a, 3b, and 3c. Issue 3a concerns section 7.3.6.2 of the agreement and involves intercarrier compensation for calls not physically originating and terminating within the same LCA. Issue 3b relates to section IV of the agreement's definition of Virtual NXX or "VNXX traffic." Finally, Issue 3c addresses whether intercarrier compensation is

[14] See Section 9.1.1.4 of the agreed to language in the proposed contract.

[15] See Section 9.1.1.10 et. seq. of the agreed to language in the proposed contract.

[16] See Section 10.2.3 et. seq. of the agreed to language in the proposed contract.

[17] See Section 10.8.2.26 et. seq. of the agreed to language in the proposed contract.

required on VNXX traffic in section 7.3.6.1.

Q. WHAT IS THE DISPUTE REGARDING ISSUE 3B AND THE DEFINITION OF VNXX?

A. Issue 3b involves the definition of VNXX traffic. Although not in the order presented in the Level 3 Petition and matrix, a discussion of the definition of VNXX traffic is necessary in order to understand the core principles of the disputed issues. Understanding the VNXX concept and the types of traffic that should be classified as VNXX is crucial to an understanding of the parties' differences over VNXX issues. An understanding of the definitional differences between the parties is a necessary prerequisite to the later discussion of compensation for local traffic.

Q. WHAT IS VNXX TRAFFIC?

A. In short, VNXX is an arrangement that provides the functionality of toll or 8XX service, but at no extra charge. An NXX code, commonly referred to as a prefix, is the second set of three digits of a ten-digit telephone number (NPA-**NXX**-XXXX). These three digits (NXX) are assigned to and indicate a specific central office from which a particular customer is physically served. In other words, in the number (602) 255-XXXX, the "255" prefix is assigned to a specific central office in the (602) area code and thus identifies the general geographic area in which the customer is located. A "virtual" NXX, or VNXX undercuts that concept because it results in a carrier-assigned NXX associated with a particular central office, but where the carrier has no customers physically located. Instead, these telephone numbers are assigned to a customer physically located outside the LCA of the

central office associated with the particular NXX. With VNXX, the physical location of the CLEC customer is in most cases in a LCA that would require a toll call from the LCA with which the telephone number is associated. This scheme requires the assignment of a "virtual" NXX. The NXX is labeled "virtual" because it is an assigned number that tells callers that it is in the *calling party's* LCA, rather than the *called* party's LCA. In other words, a call to the "virtual" NXX does not result in a local call within the LCA that the VNXX number appears to be assigned; but in reality the call is terminated in a different LCA, and perhaps even in a different state. Exhibit LBB3 attached hereto demonstrates visually how VNXX circumvents the proper numbering plan.

VNXX has become an issue because CLECs, like Level 3 in Arizona, obtain local numbers from the North American Numbering Plan Administrator ("NANPA") in various parts of a state that are actually assigned to its customers (*i.e.*, ISPs) with no physical presence whatsoever in the LCA with which the local numbers are associated; thus, the traffic directed to those numbers is, instead of being routed to customer in the same LCA as the calling party, routed to one of the points of interconnection ("POIs") of the CLEC and is then terminated with the CLEC's ISP customer at a physical location in another LCA or even in another state.

Q. IS THE VNXX ISSUE CONNECTED TO THE SINGLE POINT OF INTERCONNECTION (SPOI) ISSUE?

A. Yes. In the early 2000s CLECs argued that they should be entitled to serve a LATA from a single switch rather than placing switches in numerous LCAs in order to

offer local service. Qwest agreed and has offered such a form of interconnection (SPOI) for several years. If a CLEC provides local service from a single switch within a LATA, it is entitled (because it is a CLEC) to be assigned NXXs for LCAs both near and far from the switch. The manner in which those NXXs are used is a critical matter. If a CLEC is assigned an NXX and it has constructed or leases loops to retail subscribers located within the LCA of the NXX, that is consistent with the intended use of the assigned NXX (i.e., to allow the CLEC to provide local exchange service to customers located within that LCA). But if a CLEC is assigned an NXX from a distant LCA and it creates a primary line of business that creates a deliberate misimpression that, from a carrier-to-carrier perspective, toll free calling is really conventional local calling, then that is an unintended and inappropriate use of the assigned NXX.

Q. WHAT IS QWEST'S PROPOSAL FOR ISSUE 3B, DEFINITION FOR VNXX TRAFFIC?

A. Qwest proposes the following definition of VNXX Traffic:

> "VNXX Traffic" is all traffic originated by the Qwest End User Customer that is not terminated to CLEC's End User Customer physically located within the same Qwest Local Calling Area (as approved by the state Commission) as the originating caller, regardless of the NPA-NXX dialed and, specifically, regardless of whether CLEC's End User Customer is assigned an NPA-NXX associated with a rate center in which the Qwest End User Customer is physically located.

Q. WHAT IS LEVEL 3'S PROPOSAL FOR ISSUE 3B, DEFINITION FOR VNXX TRAFFIC?

A. Level 3's proposes 3 paragraphs for the definition of VNXX traffic:

VNXX Traffic shall include the following:

ISP-bound VNXX traffic is telecommunications over which the FCC has exercised exclusive jurisdiction under Section 201 of the Act and to which traffic a compensation rate of $0.0007 / MOU applies. ISP-bound VNXX traffic uses geographically independent telephone numbers ("GITN"), and thus the telephone numbers associated with the calling and called parties may or may not bear NPA-NXX codes associated with the physical location of either party. This traffic typically originates on the PSTN and terminates to the Internet via an Internet Service Provider ("ISP").

VoIP VNXX traffic is telecommunications over which the FCC has exercised exclusive jurisdiction under Section 201 of the Act and to which traffic a compensation rate of $0.0007 / MOU applies. VoIP VNXX traffic uses geographically independent telephone numbers ("GITN"), and thus the telephone numbers associated with the calling and called parties may or may not bear NPA-NXX codes associated with the physical location of either party. Because VoIP VNXX traffic originates on the Internet, the physical location of the calling and called parties can change at any time. For example, VoIP VNXX traffic presents billing situations where the (i) caller and called parties are physically located in the same ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with different ILEC LCAs; (ii) caller and called parties are physically located in the same ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with the same ILEC LCAs; (iii) caller and called parties are physically located in the different ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with same LEC LCAs; and (iv) caller and called parties are physically located in the different ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with different ILEC LCAs. Examples of VoIP VNXX traffic include the Qwest "One Flex" service and Level 3's (3)VoIP Enhanced Local service.

Circuit Switched VNXX traffic is traditional "telecommunications services" associated with legacy circuit switched telecommunications providers, most of which built their networks under monopoly regulatory structures that evolved around the turn of the last century. Under this scenario, costs are apportioned

according to the belief that bandwidth is scarce and transport expensive. The ILEC offers to a customer the ability to obtain a "local" service (as defined in the ILEC's retail tariff) by paying for dedicated transport between the physical location of the customer and the physical location of the NPA-NXX. Thus, this term entirely describes a service offered by ILECs, but which cannot be offered by IP-based competitors as such networks do not dedicate facilities on an end-to-end basis.

Q. WHAT IS THE BASIC DIFFERENCE BETWEEN THE TWO COMPANIES' DEFINITIONS OF VNXX?

A. Both sides agree that a VNXX call originates in one LCA and terminates in another. In addition, both Level 3 and Qwest agree that, with VNXX, the physical location of the end user customer who is being called bears no relationship to the local number that is assigned to the call. For example, Qwest's definition defines VNXX traffic as "traffic...that is not terminated to CLEC's End User Customer physically located within the same Qwest LCA .... as the originating caller, regardless of the NPA-NXX dialed." Level 3's definition states that "VNXX traffic uses geographically independent telephone numbers ("GITN"), and thus the telephone numbers associated with the calling and called parties may or may not bear NPA-NXX codes associated with the physical location of either party."

What the parties do not agree on is the means of compensation or appropriate trunking for VNXX traffic. For instance, Level 3 adds "compensation" language into the definition on the assumption that reciprocal compensation applies to VNXX traffic, attempting to set the compensation rate[18] for a call originating in one LCA

[18] If the Commission were to adopt Level 3's proposed definition, it would then mandate reciprocal compensation payments at the local ISP rate of $.0007 and would completely eliminate the concept of a toll call with regard to this traffic.

and terminating in a different one. Thus, as noted above, under Level 3's proposal, instead of Qwest recovering the cost of delivering the traffic, Qwest would pay Level 3 a compensation rate to terminate the traffic. In other words, Level 3 proposes a fundamental change in intercarrier compensation for VNXX traffic.

Level 3's language is improper for several reasons. First, because this section is for defining *what* VNXX traffic is and not its rates, and second, and of critical importance, Level 3's proposed definition of VNXX would convert toll calls to local calls, and change the Commission's defined LCAs. For example, Level 3's language would enable a customer physically located in the Phoenix LCA to have a Flagstaff telephone number, so that calls to and from that person by local subscribers in Flagstaff would be treated as local calls even though they are routed over the PSTN to Phoenix just like other toll calls. This is improper because, among other reasons, Level 3 wants to shift all of the costs of this arrangement to Qwest.

Q. LEVEL 3'S DEFINITION CONTAINS THREE CATEGORIES OF VNXX TRAFFIC. DO YOU AGREE WITH "CATEGORIES" IN REGARD TO VNXX CALLS?

A. No. The ISP and VoIP paragraphs of Level 3's definition are essentially the same for both categories. For example, both sections state that "VNXX traffic uses geographically independent telephone numbers...not associated with the physical location of either party..." In the VoIP section above, I stated that it appears that Level 3 wants to treat all VoIP traffic as if it were local and it is through this

definition that it attempts to do so. Both the ISP and VoIP sections attempt to impose "the compensation rate of $0.0007/MOU" on this interexchange traffic. The only actual difference between the paragraphs is the claim that an ISP VNXX call originates on the PSTN and terminates to an ISP while VoIP VNXX calls originate on the Internet and terminate to an end customer on the PSTN. These comments, however, do not change the actual definition of what constitutes VNXX traffic. The categories (ISP or VoIP) are irrelevant to establishing the VNXX definition which deals with the geographic location of customers and NXX numbers.

Level 3's third category is both unnecessary and out of place in this section. Labeled "Circuit Switched VNXX traffic," the alleged definition contains only Level 3's biased legal opinion regarding "traditional 'telecommunications services.'" The language does not add any substance to the definition of VNXX traffic and is obviously extraneous to the subject matter of this section of the contract.

On the whole, Level 3 is attempting to create distinctions where none exist in order to avoid the existing intercarrier compensation mechanisms—in effect to avoid costs that other carriers pay and replace them with revenues. All three proposed categories of VNXX are based on the termination of a call being physically located in a different LCA. The labeled distinctions are irrelevant to the definition of VNXX and only confuse the language and the underlying issues.

Q. HAS THIS COMMISION ADDRESSED THE SUBJECT OF VNXX

TRAFFIC PREVIOUSLY?

A. Yes. In the recent AT&T arbitration this Commission addressed the issue of VNXX traffic. The issue arose with in the context of the definition of Exchange Service i.e. local service. In that case AT&T argued that the nature and compensation of a call should be based on the NPA-NXX of the calling and called parties, and not the physical location of the parties. Qwest's language on the other hand said that local traffic was traffic that originated and terminated in the same local calling area as determined by the Commission. After reviewing the arguments for both sides the Commission found the "Qwest's definition of Exchange Service comports with existing law and rules and should be adopted."[19]

Q. IF A VNXX CALL IS PLACED TO AN ISP OR TO A PSTN END USER CUSTOMER AS A VOIP TERMINATION, DOES THE CALL CLASSIFICATION CHANGE TO A LOCAL CALL?

A. The type of business of an end user customer does not affect whether a call is local or not. If an end user customer is located in Flagstaff (whose ISP's modems and routers are physically located in Phoenix, but whose number is a Flagstaff NPA NXX) logs onto the Internet, the call to the ISP telephone number is not a local call because it originates in Flagstaff and terminates in Phoenix.[20] It makes no difference if the call is to an ISP, a hardware store, or a restaurant in Phoenix,

---

[19] Opinion and Order, *In the Matter of the Petition of AT&T Communications of the Mountain States, Inc. and TCG Phoienix, for Arbitration with Qwest Corporation, Inc. Purusant to 47 U.S.C. Section 252(b),* Docket Nos. T-02428A-03-0553 and T-01051B-03-0553, at 13 (Ariz. Corp. Comm'n, April 6, 2004).

[20] Flagstaff is in a different LCA than Phoenix.

because it is a call that originates in Flagstaff and terminates in Phoenix. The location of the calling and called parties determines the nature of the call, not the business type. A toll call is a toll call. Level 3's avoidance of that fact is demonstrated by its creation of VNXX categories. ISP, VoIP or circuit based VNXX calls do not change a toll call into a local call. This language does not belong in the contract anywhere, including in the definition of VNXX.

Q. IF ISP TRAFFIC AND VOICE TRAFFIC ARE TREATED THE SAME FOR THE VNXX DEFINITION, HOW IS A CALL DETERMINED TO BE LOCAL OR TOLL?

A. In regard to defining VNXX traffic, ISP traffic should be treated no differently than voice traffic. In determining if a call is local or toll, the location of the origination and termination is the decisive factor: calls that physically originate and terminate within the same LCA are rated as local calls. The ESP POP is the point of termination (for an ISP) and origination (for terminating VoIP). Calls routed to a point of interface for termination **outside** of the originating LCA are interexchange calls. VNXX services that terminate traffic to an ISP whose Internet equipment (e.g., modems, servers, and routers) is not located within the same LCA as the originating LCA are simply interexchange toll calls and must remain subject to the access charge provisions that govern interexchange toll traffic. In the case of VoIP calls, where a VoIP Provider's point of presence is in one LCA, say Phoenix, and the VoIP Provider's CLEC, for example Level 3, wants to deliver a call on behalf of its end user customer (the VoIP Provider) to an end user customer in Flagstaff, Level 3 should hand that call to an "intraLATA" toll provider for termination.

Level 3's definitional language attempts to say this is a toll call or not depending on to whom the call is placed. Again, a toll call is a toll call. Qwest's definition of VNXX traffic is clear, concise, and accurate, while Level 3's definition unnecessarily complicates the issue. Qwest's language should be adopted.

Q. IN ITS PETITION LEVEL 3 REFERS TO ITS VNXX PRODUCT AS AN "FX LIKE" PRODUCT. IS VNXX LIKE FOREIGN EXCHANGE (FX) SERVICE?

A. No. Level 3's VNXX product uses the PSTN to route and terminate calls to end user customers connected to the PSTN in another LCA. In all respects, except the number assignment, the call is routed and terminated as any other toll call. Qwest's FX product, on the other hand, delivers the FX calls within the LCA where the number is actually associated. In other words, a Qwest FX customer actually purchases a local service connection in the LCA associated with the telephone number. That local service connection is purchased by the FX customer out of the local exchange tariffs that apply to that LCA. The calls are then transported on what is, in effect, the end user customer's private network (private line) to another location. In other words, after purchasing the local connection in the LCA, the FX customer bears full financial responsibility to transport it to the location where the call is actually answered. It does this at tariffed rates. Qwest, and other telephone companies, have been selling such private line services to PBX owners and other customers for decades. Calls are delivered to the customer's PBX and any call delivery behind the PBX is, for purposes of transport to the customer's actual location, carried on the owner's private network. Qwest and other telephone

companies delivered the call to the PBX location. Private transport beyond that is the business of and financial responsibility of the PBX owner.

Level 3's approach is fundamentally distinct from FX service. Under FX, the customer who desires a presence in another LCA is fully responsible to transport the traffic to the location where it wants the call answered. Under level 3's proposal, Level 3 wants the call routed over the PSTN, but feels no responsibility for providing the transport to the distant location. In calling its product an FX-like product, Level 3 attempts to confuse this critical distinction. Calls over the public switched network between communities that use the toll network are toll calls no matter how the numbers are assigned. Calls delivered to end user customers within a LCA and transported over private networks are more than a mere technical distinction. It is consistent with the way Commissions have been distinguishing between toll and local calls since access charges were established.

ISSUE 3A RECIPROCAL COMPENSATION FOR VNXX

Q. PLEASE DESCRIBE ISSUE 3A AND WHAT THE PARTIES DISPUTE IN THIS ISSUE.

A. Now that the distinction between a local call and VNXX has been established, Issue 3a can be addressed. Qwest's position is clear. VNXX calls are not local calls subject to reciprocal compensation payments under 251(b)(5). Qwest's proposed language makes clear that Qwest will not treat VNXX calls as local and will not pay local reciprocal compensation on such VNXX traffic. Level 3 attempts to cast this issue as to whether Qwest may exclude ISP traffic from compensation due under the

FCC's *ISP Remand Order* through contract terms that identify geographic designations based on LCAs. A call from a customer in Phoenix to a customer located in Miami, Florida is a toll call, irregardless of the telephone number dialed. The fact that the customer at the other end of that toll call is an ISP does not magically change the call into a local call. And a VNXX call to an ISP physically located in Phoenix, but with a Flagstaff NPA NXX, placed by an end user customer in Flagstaff is not a local call either. However, Qwest also makes clear that Qwest *will* pay reciprocal compensation, a charge for terminating local traffic, on traffic that actually originates and terminates at physical locations within the same LCA, as established by the Commission. Qwest also makes clear that calls that originate and terminate at locations in different LCAs are not local calls and not entitled to reciprocal compensation. The "VNXX" number is not and should not be determinative. And, of course, as stated earlier, if the VNXX call is an ISP call, no reciprocal compensation is due, just as it would not be due on a typical voice call. The fact that the call is ISP grants it no special status, legal or otherwise.

Q. WHAT IS QWEST'S LANGUAGE PROPOSAL FOR ISSUE 3A, SECTION 7.3.6.3?

A. Qwest's proposal for Section 7.3.6.3 of the interconnection agreement states:

> 7.3.6.3 Qwest will not pay reciprocal compensation on VNXX traffic.

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL FOR SECTION 7.3.6.3?

A. Level 3's counter-proposal for Section 7.3.6.3 is set forth:

7.3.6.3 If CLEC designates different rating and routing points such that traffic that originates in one rate center terminates to a routing point designated by CLEC in a rate center that is not local to the calling party even though the called NXX is local to the calling party, such traffic ("Virtual Foreign Exchange" traffic) shall be rated in reference to the rate centers associated with the NXX prefixes of the calling and called parties' numbers, and treated as 251(b)(5) traffic for purposes of compensation.

Q. LEVEL 3 STATES THAT QWEST IS PROPOSING TO EXCLUDE ISP TRAFFIC FROM COMPENSATION DUE IT UNDER THE FCC'S ISP REMAND ORDER. DO YOU AGREE?

A. No. First, Qwest agrees that, under the *ISP Remand Order* and until addressed more definitively by the FCC, reciprocal compensation is due on ISP calls that originate and terminate to locations within a LCA. However, the FCC has not ruled that all ISP traffic is subject to intercarrier compensation. Level 3's fundamental argument is that the *ISP Remand Order*, read in combination with the *Core Forbearance Order*,[21] requires that intercarrier compensation must be paid on *all* ISP traffic, including VNXX ISP traffic.[22] Level 3 argues that traffic bound for an ISP located in Phoenix is subject to intercarrier compensation, regardless of whether it originated across town in the LCA, from the other end of the state, or from across the country. However, there is nothing in the *ISP Remand Order* or *Core Forbearance Order* that requires that state commissions adopt ICA language that allows intercarrier compensation for VNXX ISP traffic. These orders relate only to local ISP traffic, where the ISP is physically located in the same LCA as the

[21] Order, *Petition of Core Communications for Forbearance Under 47 USC § 160(c) from the Application of the ISP Remand Order*, Order FCC 04-241 WC Docket No. 03-171 (rel. October 18, 2004) ("*Core Forbearance Order*").

[22] Level 3 Petition ¶¶ 56-66.

customer placing the call. Qwest addresses its legal position on this issue in its Response to Level 3's Petition and will do in more detail in its briefs in this case.

Q. DOES LEVEL 3 ALSO CONFUSE THE ISSUE OF ISP TRAFFIC WITH VNXX ISSUES?

A. Yes. VNXX is not just a phenomenon associated with ISP calls, although it is in that context that VNXX issues often arise. A VNXX call can be to an ISP such as AOL located in another town or to a voice customer such as the local hardware store in that other town. VNXX arrangements can exist for both ISP and voice traffic. The issue of VNXX traffic (whether ISP or other types of traffic) has been addressed to some degree by the FCC and has been extensively litigated before many state commissions. The majority of state commissions have ruled that traffic, whether voice traffic or ISP that does not physically originate and terminate in the same LCA is not subject to reciprocal compensation under existing interconnection agreements. Here, however, the issue is not the interpretation of an existing interconnection agreement, but what the language of a new agreement should provide. In this case, Level 3 is asking the Commission to require local reciprocal compensation for non-local calls, deviating from the policy that reciprocal compensation is recoverable only for the termination of "local" traffic (as defined by state commission tariffs). In that regard, language from the *ISP Remand Order* is instructive:

> Congress preserved the pre-Act regulatory treatment of all the access services enumerated under Section 251(g). These services thus remain subject to Commission jurisdiction under Section 201 (or, to the extent they are

> *intra*state services, they remain subject to the jurisdiction of state commissions), whether those obligations implicate pricing policies as in *Comptel* or reciprocal compensation. *This analysis properly applies to the access services that incumbent LECs provide (either individually or jointly with other local carriers) to connect subscribers with ISPs for Internet-bound traffic.*[23]

The FCC was focused upon problems unique to the compensation mechanism that applied to traffic where the ISP was located in the same LCA. Level 3 attempts to inject language that "ISP-bound" VNXX traffic is subject to ISP compensation, and argues that the FCC changed the access charge structure and issued an exemption for "all" calls sent to the Internet, regardless of where the call originates and terminates. While the FCC has opened a docket to scrutinize these issues as a part of an overall examination of intercarrier compensation,[24] the applicable law has not changed. Until the FCC takes further action in its intercarrier compensation docket, expanding reciprocal compensation to include calls from across the state or country must not be permitted.

Q. LEVEL 3 ARGUES THAT THERE IS A COST DIFFERENCE IN TERMINATING ISP AND NON ISP CALLS. PLEASE RESPOND.

A. Level 3 argues that its cost to terminate an ISP call is not different than the cost to terminate a non ISP call. Qwest has never suggested that there is a cost difference to Level 3 and, whether there is or is not a difference, the question is completely irrelevant. The question before the Commission is not the cost of termination, but

---

[23] *ISP Remand Order* ¶ 39 (emphasis added, footnote omitted).

[24] *In the Matter of Developing a Unified Intercarrier Compensation Regime*, 16 FCC Rcd 9610 (2001) ("*Intercarrier Compensation NPRM*").

whether a CLEC, by serving ISPs, may gather traffic from multiple LCAs at no cost to itself (remember that Level 3 also claims it should pay no costs on Qwest's side of the POI) and then be able to charge Qwest for terminating *all* of that traffic, whether it is local or not. As many other state commissions that have addressed the issue have concluded and as the FCC clearly concluded in the *ISP Remand Order*, requiring reciprocal compensation on ISP traffic leads to uneconomic arbitrage and windfall revenues.

Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?

A. Reciprocal compensation as used in the Act is the charge to terminate "local" traffic. Under Qwest's definition, VNXX traffic (the issue discussed in 3b above) is traffic that originates and terminates at physical locations that *are not* within the same LCA. Even Level 3's definition of VNXX recognized that the call would originate in one LCA and terminate in another LCA. While acknowledging the true nature of VNXX calls, Level 3's proposal attempts to produce a major change in compensation policy by requesting that the Commission nevertheless eliminate access charges on such traffic and require the payment of compensation for terminating the traffic. Such a dramatic change in policy should not be approved by the Commission.

Q. WHY DOES QWEST BELIEVE ITS LANGUAGE SHOULD BE ADOPTED?

A. Carriers seeking to receive reciprocal compensation on VNXX services are attempting to redefine existing tariffed services and Commission-established local boundaries and categorize them in a unique way in an attempt to collect reciprocal

compensation and avoid access charges. These VNXX numbers, and the facilities that would be used to connect to locations where such calls would be terminated, are interexchange in nature and are therefore not subject to reciprocal compensation. By attempting to fool the systems with a local number, the call detail itself would not indicate that any compensation associated with this interexchange or toll call should be made. The assignment of telephone numbers in the VNXX manner should not result in inter-exchange calls between two communities not in the same LCA to masquerade as local calls.

Q. WHAT IS THE APPROPRIATE COMPENSATION MECHANISM FOR THESE TYPES OF CALLS?

A. The costs of carrying VNXX calls between different LCAs should not be borne by end user customers of the local exchange where the call originated. The VNXX service providers, and the ultimate cost-causer, the ISP whose customers generate the traffic via dial-up Internet connections, should bear the financial responsibility for such traffic. After all, it is the CLEC and its ISP customers who generate the traffic. The telecommunications carrier who wishes to deliver this interexchange traffic elsewhere must bear the financial responsibility of the interexchange transport to the ISP. The appropriate compensation mechanism for VNXX services is that the VNXX service provider that is transporting traffic between LCAs should pay the appropriate charges to transport calls between the LCAs. Such calls should not be considered local calls.

ISSUE 3C: RECIPROCAL COMPENSATION FOR ISP TRAFFIC

Q. WHAT IS THE DISPUTE BETWEEN THE PARTIES IN ISSUE 3C?

A. In Issue 3b the definition of VNXX traffic was discussed. Issue 3a dealt with Level 3's claim that VNXX traffic should be subject to reciprocal compensation. There was no distinction made by Level 3 between a voice call and an ISP call; Level 3's language tries to include VNXX in the category of calls entitled to reciprocal compensation. Qwest's proposed language made clear that VNXX traffic was not local traffic subject to reciprocal compensation. Now in Issue 3c the language addresses the payment of reciprocal compensation for ISP traffic generally.

Q. WHAT IS QWEST'S LANGUAGE PROPOSAL FOR ISSUE 3C, SECTION 7.3.6.1, INTERCARRIER COMPENSATION FOR ISP BOUND TRAFFIC?

A. Qwest proposal for the definition of Section 7.3.6.1 is as follows:

> 7.3.6.1 Subject to the terms of this Section, intercarrier compensation for ISP-bound traffic exchanged between Qwest and CLEC (where the end users are physically located within the same Local Calling Area) will be billed as follows, without limitation as to the number of MOU ("minutes of use") or whether the MOU are generated in "new markets" as that term has been defined by the FCC:
>
> $.0007 per MOU or the state ordered rate, whichever is lower.

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL FOR ISSUE 3C, SECTION 7.3.6.1, INTERCARRIER COMPENSATION FOR VNXX TRAFFIC?

A. Level 3's counter-proposal for the definition of Section 7.3.6.1 is as follows:

> 7.3.6.1 Intercarrier compensation for ISP-bound traffic Section 251(b)(5) traffic, and VoIP traffic exchanged between Qwest and CLEC will be billed and paid without limitation as to the number of MOU ("minutes of use") or whether the MOU are generated in "new markets" as that term has been defined by the FCC in the ISP Remand Order at a rate of $.0007 per MOU.

Q WHY DOES QUEST OBJECT TO LEVEL 3'S PROPOSED LANGUAGE IN 7.3.6.1?

A. Qwest's major objection to Level 3's language stems from the fact that Level 3 has inserted additional types of traffic into the paragraph for which it wants to receive reciprocal compensation at the rate of $.0007. The two additional types of traffic are the imprecise reference to "section 251(b)(5) traffic" as well as "VoIP traffic." As I explain below, by proposing this definition, Level 3 is attempting, in effect, to obtain a decision from the Arizona Commission that access rates do not apply to any Level 3 traffic in Arizona.

Q. HOW IS LEVEL 3 ATTEMPTING TO ELIMINATE ACCESS CHARGES IN ARIZONA?

A. In a very roundabout, but very clever way. Level 3 proposes language saying the rate of $.0007 shall apply to "251(b)(5) traffic." To find out what this means, one must go to the definitions section of Level 3's proposed agreement to see how it defines "251(b)(5) traffic." It does this in its definition of the term "telecommunications," which, under Level 3'sd definition, "*includes*, but is not limited to *Section 251(b)(5) Traffic, which is defined as* Telephone Exchange Service, Exchange Access Service, Information Service, *and Telephone Toll Service (including but not limited to IntraLATA and InterLATA Toll) traffic and is also defined to include ISP-Bound traffic, VoIP traffic.*" Thus, while including "ISP-bound traffic and VoIP," Level 3 also includes toll traffic in section 251(b)(5) traffic. As far as I know, it is unprecedented for a CLEC to claim that toll traffic is

subject to reciprocal compensation. The effect of all of this is that, under Level 3's language, toll would be subject to reciprocal compensation and no longer subject to terminating access charges. I address this in more detail in 'Issue X Definition of Interconnection.' Level 3 apparently believes that access charges should not apply to its traffic, even for calls outside the LCA. Thus it has attempted in several places to insert language into the agreement that would completely exempt Level 3 from those charges. These are not just minor tweaks to contract language that are of little consequence; rather, it represents a dramatic change in intercarrier compensation from the mechanisms that govern the relationships between carriers.

VIII. DISPUTED ISSUE 4: COMPENSATION FOR VOICE AND VoIP TRAFFIC

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 4.

A. At its core, this is also a dispute over VNXX calls. Qwest agrees to pay reciprocal compensation on local VoIP calls where the end user customers are physically located in the same LCA, but not if they are located in different LCAs. While the disputed language in section 7.3.6 dealt with ISP traffic, the language in dispute in this issue, section 7.3.4, deals with the exchange of local voice and VoIP traffic. In this issue, section 7.3.4 deals with the exchange of local voice and VoIP traffic. Again, VNXX is the central issue because Level 3 proposes in its language that the compensation for local voice and VoIP calls also apply as long as the NXX codes are associated with the same LCA, with no requirement that the end user customers actually be physically located within the same LCA. The Level 3 language simply attempts to have the Commission amend its access rules and impose reciprocal

compensation for VNXX calls that are from outside the LCA.

Q. WHAT IS QWEST'S LANGUAGE PROPOSAL FOR SECTION 7.3.4.1?

A. Qwest's proposal for Section 7.3.4.1 is set forth below:

> 7.3.4.1 Intercarrier compensation for Exchange Service (EAS/Local) and VoIP traffic exchanged between CLEC and Qwest (where the end users are physically located within the same Local Calling Area) will be billed at $.00097.
>
> 7.3.4.2 The Parties will not pay reciprocal compensation on traffic, including traffic that a Party may claim is ISP-Bound Traffic, when the traffic does not originate and terminate within the same Qwest local calling area (as approved by the state Commission), regardless of the calling and called NPA-NXXs and, specifically regardless of whether an End User Customer is assigned an NPA-NXX associated with a rate center different from the rate center where the customer is physically located (a/k/a "VNXX Traffic"). Qwest's agreement to the terms in this paragraph is without waiver or prejudice to Qwest's position that it has never agreed to exchange VNXX Traffic with CLEC.

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL FOR SECTION 7.3.4.1?

A. Level 3's proposal for Section 7.3.4.1 is set forth:

> 7.3.4.1 Subject to the terms of this Section, intercarrier compensation for Section 251(b)(5) Traffic where originating and terminating NPA-NXX codes correspond to rate centers located within Qwest defined local calling areas (including ISP-bound and VoIP Traffic) exchanged between Qwest and CLEC will be billed as follows, without limitation as to the number of MOU ("minutes of use") or whether the MOU are generated in "new markets" as that term has been defined by the FCC: $.0007 per MOU.

Q. IS THERE ALSO A DISPUTE ABOUT THE RATE THAT IS PAID?

A. Yes. The Qwest proposed rate in my testimony reflects the rate of $.00097

established by the Commission for voice traffic. The FCC did nothing to take away the state commissions' right to set the voice rate for reciprocal compensation. Level 3 thinks a different rate, $.0007, should apply and not the rate established by the Arizona Commission. In addition, Level 3 again tries to insert 251(b)(5) language, which, based on the discussion above, includes toll. Level 3 also attempts to include any VNXX calls by tying the traffic to the NPA-NXX, and not to the towns where the customers reside.

Q. WHY SHOULD THE COMMISSION ADOPT THE QWEST LANGUAGE OVER THE LEVEL 3 LANGUAGE?

A. I will not repeat the arguments on this issue. I addressed them in the VNXX definition section, as well as the compensation for ISP issue. In both instances, Level 3 sought to expand the definition of 251(b)(5) traffic to include calls from outside the LCA if the terminating party had an assigned NXX associated with the local exchange of the calling party. Level 3 is attempting through its language in 7.3.4.1 to do the same thing for voice and VoIP calls. Qwest's language makes clear that VNXX traffic, including voice and VoIP VNXX traffic, is not local and is not subject to reciprocal compensation rules for local traffic. Level 3's attempt to change the FCC's orders and redefine 251(b)(5) to include toll is also addressed in Issues 10 and 19.

IX. DISPUTED ISSUE 19: ISP BOUND 3:1 RATIO, Section 7.3.6.2

Q. WHAT IS THE DISPUTED LANGUAGE FOR SECTION 7.3.6.2?

A. Section 7.3.6.2 states:

> 7.3.6.2 Identification of ISP-Bound Traffic – ~~**unless the Commission has previously ruled that Qwest's method for tracking ISP-Bound Traffic is sufficient,**~~ Qwest will presume traffic delivered to CLEC that exceeds a 3:1 ratio of terminating (Qwest to CLEC) to originating (CLEC to Qwest) traffic is ISP- Bound traffic. Either party may rebut this presumption by demonstrating the factual ratio to the state Commission. **Traffic exchanged that is not ISP-Bound Traffic will be considered to be Section 251(b) (5) traffic.**

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO THE LANGUAGE IN SECTION 7.3.6.2.

A. There are two issues in regard to Section 7.3.6.2. In the first instance Level 3 seeks to strike language dealing with the situation where a State Commission has previously ruled on what is an appropriate method of tracking ISP-bound Traffic. I show this disputed language in ~~**strike through text**~~. The second issue deals with Level 3's attempt to insert additional language in the section dealing with 3:1 that will presume all traffic exchanged between Qwest and Level 3 that is not ISP-bound traffic is 251(b)(5) traffic. I show this proposed Level 3 change in **underlined text**. I will address each of these issues separately.

Q. WHY DID QWEST INCLUDE THE LANGUAGE IN THE FIRST PART OF SECTION 7.3.6.2 THAT LEVEL 3 WANTS STRIKEN?

A. The language at issue, "*unless the Commission has previously ruled that Qwest's*

method for tracking ISP-Bound Traffic is sufficient" is language proposed by Qwest for all states. Qwest's proposed language simply provides that *if* a Commission has previously ruled that Qwest's method of identifying actual ISP-bound traffic is sufficient, then that method of identifying actual local and ISP minutes should be employed instead of the presumption formula. The FCC gave this right to both parties as part of the decision in the ISP Remand Order establishing the 3:1 ratio.

> "A carrier may rebut the presumption, for example, by demonstrating to the appropriate state commission that traffic above the 3:1 ratio is in fact local traffic delivered to non-ISP customers. In that case, the state commission will order payment of the state-approved or state-arbitrated reciprocal compensation rates for that traffic. Conversely, if a carrier can demonstrate to the state commission that traffic it delivers to another carrier is ISP-bound traffic, even though it does not exceed the 3:1 ratio, the state commission will relieve the originating carrier of reciprocal compensation payments for that traffic, which is subject instead to the compensation regime set forth in this Order".[25]

Qwest has brought this issue up elsewhere and has successfully rebutted the 3:1 presumption. In Arizona, because Qwest has not yet brought this matter before the Commission, the Commission has not yet ruled on Qwest's method of identifying ISP traffic. Because Level 3 does not object to the language "Either party may rebut this presumption by demonstrating the factual ratio to the state Commission", Qwest has no objection to the language '~~unless the Commission has previously ruled that Qwest's method for tracking ISP-Bound Traffic is sufficient,~~' being struck.

Q. WHY DOES QWEST OBJECT TO LEVEL 3'S INSERTION OF

[25] *ISP Remand Order*, ¶ 79.

LANGUAGE AT THE END OF SECTION 7.3.6.2?

A. This is simply another manifestation of Level 3's roundabout effort to reclassify all of its traffic and eliminate access charges. By making what at first blush is a seemingly harmless insertion ("**Traffic exchanged that is not ISP-Bound Traffic will be considered to be Section 251(b) (5) traffic,"),** Level 3 is in fact attempting to classify *all* traffic exchanged between the two companies as local traffic subject to reciprocal compensation. As I discussed previously, this sentence must be read side by side with Level 3's definition of 251(b)(5) traffic, in which Level 3 attempts to even include toll traffic. Level 3's language would have the effect of eliminating the interstate and intrastate access structures established by the FCC and Arizona Commission and should be rejected as inconsistent with both the law and good policy. The FCC made clear that all traffic is not subject to 251(b)(5):

> "We conclude that a reasonable reading of the statute is that Congress intended to exclude the traffic listed in subsection (g) from the reciprocal compensation requirements of subsection (b)(5). Thus, the statute does not mandate reciprocal compensation for "exchange access, information access, and exchange services for such access" provided to IXCs and information service providers."[26]

Q. HOW SHOULD THE COMMISION RULE ON ISSUE 19?

A. The Commission should rule that Level 3's attempt to change existing law on what is included in section 251(b)(5) traffic should be denied. Thus, the Level 3 proposed language at the end of 7.3.6.2 should be rejected.

---

[26] *ISP Remand Order* ¶ 34.

X. DISPUTED ISSUE 10: DEFINITION OF INTERCONNECTION

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 10.

A. Level 3 mischaracterizes this issue as Qwest's attempt to exclude traffic from being exchanged. That is not the issue at all. In fact, this is simply another version of Level 3's inappropriate effort to reclassify all traffic to its benefit. Level 3 purports to be offering a definition of interconnection, but it is really attempting to insert into the agreement an incredibly broad definition of section 251(b)(5 traffic: ***"Telecommunications includes, but is not limited to Section 251(b)(5) Traffic, which is defined as Telephone Exchange Service, Exchange Access Service, Information Service, and Telephone Toll Service (including but not limited to IntraLATA and InterLATA Toll) traffic and is also defined to include ISP-Bound traffic, VoIP traffic."*** This language is a clear misstatement of the FCC's position. Level 3 is seeking to expand the definition of 251(b)(5) traffic to include, among other things, intraLATA and interLATA toll calls. In fact, the FCC has clearly and unequivocally stated that section 251(b)(5) does NOT include the services Level 3 is attempting to add in its definition of "interconnection":

> "We conclude that a reasonable reading of the statute is that Congress intended to exclude the traffic listed in subsection (g) from the reciprocal compensation requirements of subsection (b)(5). Thus, the statute does not mandate reciprocal compensation for "exchange access, information access, and exchange services for such access" provided to IXCs and information service providers. Because we interpret subsection (g) as a carve-out provision, the focus of our inquiry is on the universe of traffic that falls within subsection (g) and not the universe of traffic that falls within subsection

(b)(5)."[27]

Level 3 is attempting, through a definitional sleight of hand, to convince the Arizona Commission to overturn this portion of the FCC's decision in the *ISP Remand Order* and to fundamentally change the intercarrier compensation mechanisms that have governed carrier-to-carrier relationships for years. The Commission should reject Level 3's definition of "interconnection" and its attempt to obtain an interconnection definition that would include toll, access, and information services in section 251(b)(5) traffic.

XI. DISPUTED ISSUE 11: DEFINITION OF INTEREXCHANGE CARRIER

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 11.

A. This issue relates to whether the Interconnection Agreement should contain the definition of "Interexchange Carrier" as proposed by Qwest or use Level 3's definition.

Q. WHAT IS QWEST'S LANGUAGE PROPOSAL FOR THIS DEFINITION?

A. Qwest's definition for "Interexchange Carrier" is as follows:

> "Interexchange Carrier" or "IXC" means a Carrier that provides ***InterLATA or IntraLATA Toll services.***

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL FOR THE DEFINITION OF AN INTEREXCHANGE CARRIER?

---

[27] *Id.*

A. Level 3's proposal for the definition of "Interexchange Carrier" is set forth:

> "Interexchange Carrier" or "IXC" means a Carrier that provides ***Telephone Toll Service.***

Q. WHY DOES QWEST BELIEVE THAT ITS DEFINITION IS ACCURATE?

A. I will state first that this is not an area of disagreement that is significant or will have a profound effect on the implementation of the interconnection agreement, except as discussed below. Qwest's proposed definition of "Interexchange Carrier" is the current, standard language included in interconnection agreements with CLECs and has been approved by every Commission in Qwest's region. An interexchange carrier is an access customer that typically purchases Feature Group D access trunks from Qwest to originate and terminate "interLATA and intraLATA" toll calls. The terms "InterLATA and IntraLATA" have been widely used and understood within the telecommunications industry. The Communications Act of 1934 (as amended) contains a definition for "'interLATA service"[28] and references the term "interLATA" throughout the Act. State commissions also reference intraLATA and interLATA services and refer to "toll" services ordered by an IXC.

Q. WHY WOULD LEVEL 3 OBJECT TO THE USE OF 'INTERLATA AND

[28] 47 U.S.C. § 153(21). (InterLATA service "means telecommunications between a point located in a local access and transport area and a point located outside such area").

"INTRALATA" IN RELATIONSHIP TO AN IXC?

A. During negotiations, Level 3 implied that in order for a toll call to be a toll call, a discrete charge must be imposed. Thus, under this logic, if Level 3 did not charge its customers for VNXX calls, the VNXX calls could not be categorized as toll calls, could not be subject to access charges, and should be subject to reciprocal compensation. Level 3's effort to inject the "Telephone Toll Service" definition appears to be a back door attempt to inject this issue into the agreement. Although Qwest has little dispute between the two definitions, Qwest takes strong issue with a Level 3 assertion that the "telephone toll service" definition means that VNXX is not toll and has been validated by the agreement, with all of its attendant implication for access charges and reciprocal compensation. Under what appears to be Level 3's theory, a carrier that offers toll but does not charge its customers for any reason would thereby exempt itself from FCC or state prescribed access charges. Furthermore, Level 3's ability as a CLEC to obtain local numbers carries with it the assumption (apparently false in its case) that these numbers will be used to originate and/or terminate local calls. Thus, Qwest has no way to determine in advance whether any particular call is really a toll call that it should be billing as such. Thus, a CLEC like Level 3 that wants to rely on a definition that a toll call can only be a toll call if there is a charge is enabled to create its own self-fulfilling prophecy. The reference to charges is addressed to the end user customers. Toll is a retail product sold to end user customers. The term toll does not address the charges between carriers, exchange access. Whether or not there is a charge to a retail end user customer for the toll call will not impact the tariffed obligation to pay access charges.

XII. DISPUTED ISSUE 12: DEFINITION OF "INTRALATA TOLL TRAFFIC"

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 12.

A. This issue relates to whether the Interconnection Agreement should contain the definition of "IntraLATA Toll" as proposed by Qwest or use Level 3's definition.

Q. WHAT IS QWEST'S PROPOSAL FOR "INTRALATA TOLL"?

A. Qwest's proposal for "IntraLATA toll" is as follows:

> IntraLATA Toll Traffic" describes IntraLATA Traffic outside the Local Calling Area.

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL?

A. Level 3's proposal for "IntraLATA toll" is as follows:

> IntraLATA Toll Traffic" describes IntraLATA Traffic that constitutes Telephone Toll Service.

Again, the Commission will note that there is little in the way of a substantive difference here. Both definitions accurately describe a type of IntraLATA toll call in different ways. Neither definition will change the impact of the Agreement. However, Level 3's injection of the "Telephone Toll Service" definition again raises the issue of whether Level 3 believes that the inclusion of that definition means that traffic between two exchanges (i.e., interexchange traffic) is exempt from access charges. If so, the companies have a major dispute. The dispute can be avoided by simply adopting Qwest's language, which is clear and has been widely accepted in SGATs and interconnection agreements.

XIII. DISPUTED ISSUE 9: DEFINITION OF EXCHANGE ACCESS

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 9.

A. This dispute related to Qwest's proposed definition for "Exchange Access". Qwest agrees with Level 3's proposed definition that "Exchange Access" will have the meaning as set forth in the Act. Where Qwest used the word "Exchange Access" uniquely in Section 7 of the agreement, Qwest simply deleted the words "Exchange Access" and left the remainder of the language "Intralata toll carried solely by Local Exchange Carriers, (LEC IntraLATA toll)". The description of LEC IntraLATA toll was not disputed by Level 3 in Section 7, thus we believe this issue is closed.

XIV. DISPUTED ISSUE 14: DEFINITION OF EXCHANGE SERVICE

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 14.

A. This dispute relates to Level 3's deletion of the term "Exchange Service" as part of its request to include "Telephone Exchange Service" in the agreement. Qwest's definition for "Exchange Service" or "Extended Area Service (EAS)/Local Traffic" means traffic that is originated and terminated within a LCA as determined by the Commission. Qwest cannot nor should the Commission agree to strike "Exchange Service" from the definitions. Exchange Service is used in paragraphs throughout the agreement (most of which Level has not disputed). Qwest objects to the removal of Qwest's definition for "Exchange Service" as it is used repeatedly throughout the agreement and is therefore necessary.

XV. DISPUTED ISSUE 15: DEFINITION OF 'TELEPHONE TOLL SERVICE'

Q. PLEASE DESCRIBE THE PARTIES' DISPUTE RELATING TO ISSUE 15.

A. This issue relates to Level 3's inclusion of a definition for "telephone toll service" and Qwest's position that it is not necessary to include a separate definition for "telephone toll service."

Q. WHAT IS LEVEL 3'S LANGUAGE PROPOSAL FOR THE DEFINITION OF TELEPHONE TOLL SERVICE?

A. Level 3's proposal is as follows:

> Telephone toll service - the term "telephone toll service" means telephone service between stations in different exchange areas for which there is made a separate charge not included in contracts with subscribers for exchange service.

Q. WHAT IS THE EXISTING DEFINITION FOR SWITCHED ACCESS SERVICE THAT INCLUDES TELEPHONE TOLL SERVICE?

A. The definition that has been agreed upon by both parties for "Switched Access Service" states that Switched Access is the service that an IXC orders for originating and terminating 'telephone toll service.' Switched Access enables access customers (IXCs) to complete end user customer requests for intrastate or interstate long-distance calls. The terms and conditions for access services are in compliance with the rules and regulations for telephone toll service. The definition reads as

follows:

> "Switched Access Service" means the offering of transmission and switching services to Interexchange Carriers for the purpose of the origination or termination of ***telephone toll service***. Switched Access Services include: Feature Group A, Feature Group B, Feature Group D, 8XX access, and 900 access and their successors or similar Switched Access Services.

Q. DOES QWEST HAVE A PROBLEM WITH THE DEFINITION OF TOLL SERVICE ITSELF?

A. No. The definition is from the FCC and is not controversial. What is controversial is Level 3's attempt to avoid access charges on telephone toll elsewhere in the agreement. The real issue regarding this definition is Level 3's attempt to exempt "telephone toll service" from access charges and instead treat this traffic as local, and therefore subject to reciprocal compensation. Level 3 proposes that telephone toll service be included in section 251(b)(5) traffic, traffic that is treated as local, that is subject to reciprocal compensation, and not subject to access charges. As an example, in the definition for "Interconnection" Level 3's language states: "Section 251(b)(5) traffic, which is defined as Telephone Exchange Service, Exchange Access Service, Information Service, and ***Telephone Toll Service (including but not limited to intraLATA and interLATA Toll)***." While this is one of the few places where Level 3 spells out that it is making a definitional attempt to include toll with section 251(b)(5), Level 3 then uses the term 251(b)(5) traffic throughout the agreement without mentioning the fact that it has defined it to include toll. This is an inappropriate attempt to redefine categories of traffic in ways that will dramatically change methods of compensation. It should not be accepted by the Commission.

1

2 **Q. DOES QWEST HAVE A PROBLEM WITH THE DEFINITION ITSELF?**

3 A. No. As long as the Commission remains mindful of Level 3's improper use of the

4 term in other paragraphs involved in this arbitration.

5

6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

7 A. Yes, it does.

INDEX TO EXHIBITS

DESCRIPTION	Exhibit
ESP Connection	LBB-1
VoIP Routing	LBB-2
Virtual NXX	LBB-3

EXHIBIT
Q2
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
MARC SPITZER
Commissioner
WILLIAM A. MUNDELL
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	Docket No. T-03654A-05-0350 T-01051B-05-0350

REBUTTAL TESTIMONY OF LARRY B. BROTHERSON

ON BEHALF OF

QWEST CORPORATION

(Disputed Issue Nos. 1a, 3, 4, 10, 11, 12, 14, 15, 16, 19)

AUGUST 15, 2005

TABLE OF CONTENTS

I.	IDENTIFICATION OF WITNESS	2
II.	PURPOSE OF TESTIMONY	2
III.	DISPUTED ISSUE 16: DEFINITION OF VOIP	4
IV.	DISPUTED ISSUE 1A: SECTION 7.1.1.1 OPERATION AUDITS	30
V.	DISPUTED ISSUE 1A: SECTION 7.1.1.2 CERTIFICATION	30
VI.	DISPUTED ISSUE 3 VNXX TRAFFIC	31
VII.	DISPUTED ISSUE 4: COMPENSATION FOR VOICE AND VOIP TRAFFIC	65
IX.	DISPUTED ISSUE 10: DEFINITION OF INTERCONNECTION	66
X.	DISPUTED ISSUE 11: DEFINITION OF INTEREXCHANGE CARRIER	66
XII.	DISPUTED ISSUE 12: DEFINITION OF INTRALATA TOLL TRAFFIC	67
XII.	DISPUTED ISSUE 14: DEFINITION OF TELEPHONE EXCHANGE SERVICE	67
XIII.	DISPUTED ISSUE 15: DEFINITION OF TELEPHONE TOLL SERVICE	67

I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Larry B. Brotherson. I am employed by Qwest Corporation (Qwest) as a Director-Wholesale Advocacy in the Wholesale Markets organization. My business address is 1801 California Street, 24th Floor, Denver, Colorado, 80202.

Q. ARE YOU THE SAME LARRY B. BROTHERSON WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to respond to the Level 3 testimony of Mr. Gates and Mr. Ducloo. Specifically I will discuss the Level 3 testimony as it relates to the following disputed issues:

- ISSUE 16: DEFINITION OF VOIP
- ISSUE 1A: SECTION 7.1.1.1 OPERATION AUDITS
- ISSUE 1A: SECTION 7.1.1.2 CERTIFICATION
- ISSUE 3: VNXX TRAFFIC
- ISSUE 4: COMPENSATION FOR VOICE AND VOIP TRAFFIC
- ISSUE 19: ISP BOUND 3:1 RATIO, Section 7.3.6.2

- ISSUE 10: DEFINITION OF INTERCONNECTION
- ISSUE 11: DEFINITION OF INTEREXCHANGE CARRIER
- ISSUE 12: DEFINITION OF INTRALATA TOLL TRAFFIC
- ISSUE 14: DEFINITION OF TELEPHONE EXCHANGE SERVICE
- ISSUE 15: DEFINITION OF TELEPHONE TOLL SERVICE

In addition, I will respond to some of the general comments made by Level 3 regarding competition, network efficiencies, and the Internet.

Q. BEFORE ADDRESSING SPECIFIC ISSUES IN THE MATRIX AND SPECIFIC LANGUAGE SECTIONS, DO YOU HAVE ANY GENERAL COMMENTS?

A. Yes. This has been an unusual arbitration in terms of responding to the Petition and responding to the direct testimony. For a case whose sole purpose is to establish contract language in a disputed interconnection agreement pursuant to section 252 of the Act, Level 3 spends little time defending its own language or comparing it to Qwest's language. Its testimony is virtually all high-level policy discussion, whose thrust is that Level 3 should be entitled to special treatment. Furthermore, it should be noted that while Mr. Ducloo filed 17 exhibits, my review of his testimony indicates that he only refers to four of them (RRD ## 1-3, and 9) in his testimony. Nonetheless, I have actually responded below to a few of the exhibits that he does not mention, simply because there are serious errors in them. Qwest, of course, reserves the right to move to strike exhibits that are not appropriately presented to the Commission.

I direct my reply testimony to specific issue numbers, but in general all of the Level 3 direct testimony on issues for which I am responsible fall into two issues: (1) the definition of VoIP and (2) the proper means of defining local and interexchange calls for compensation purposes.

In light of the fact that Level 3 has chosen not to provide testimony related to specific interconnection agreement language in its direct testimony, and given the possibility that it will raise specific issues related to language for the first time in rebuttal testimony, Qwest reserves the right to seek an opportunity to reply to such testimony in live surrebuttal testimony or in some other appropriate manner.

III. DISPUTED ISSUE 16: DEFINITION OF VOIP

Q. WHY IS VOIP AN ISSUE IN THIS INTERCONNECTION AGREEMENT?

A. Until now, Level 3's business model has been primarily the offering of originating numbers to ISPs using its status as a CLEC with single point of interconnection to provide state wide free **originating** calling to ISPs. This is the VNXX issue that I address later. However, Level 3 now appears to be expanding its business model. It appears that Level 3 intends to use its status as a CLEC able to assign local telephone numbers in distant towns as the means to provide LATA-wide **termination** to VOIP providers over Qwest's network, and to treat these calls as local as well. Because Qwest's language limits ISP terminations to

1 within the local calling area ("LCA") in which the Enhanced Service Provider ("ESP")
2 purchases local service, Level 3 objects to Qwest's contract language related to VoIP.

3 **Q. PLEASE EXPLAIN THE DISPUTE RELATING TO THE DEFINITION OF VOIP?**

4 A. Level 3 and Qwest disagree on a variety of issues related to the definition of VoIP. These
5 issues include (1) where the special equipment that converts calls to Internet Protocol
6 ("IP") must be located; (2) how the ESP exemption applies to VoIP calls under certain
7 circumstances; and (3) the significance of the location of the ESP point of presence
8 ("POP") as it relates to defining a call as local or toll. My rebuttal testimony addresses Mr.
9 Ducloo's and Mr. Gates' testimony relating to these issues.

10 **Q. DID MR. DUCLOO OR MR. GATES SPECIFICALLY ADDRESS THE**
11 **INTERCONNECTION AGREEMENT ("ICA") LANGUAGE IN DISPUTE**
12 **RELATING TO THE DEFINITION OF VOIP?**

13 A. No, as I noted, the Level 3 testimony is mostly high level policy testimony. However, in
14 the course of delivering their high level testimony, both Mr. Ducloo and Mr. Gates do
15 address some of the issues associated with the language in dispute, though rarely the
16 language itself. Mr. Ducloo discussed his definition of VoIP and provided Exhibit RRD #6
17 as an illustration of two types of VoIP connections to the Public Switched Telephone
18 Network ("PSTN").

19 **Q. DO YOU AGREE WITH MR. DUCLOO'S DEPICTION OF A VOIP CALL IN**
20 **EXHIBIT RRD #6?**

A. Generally yes. Exhibit RRD #6 is an accurate depiction of two configurations I discuss in my direct testimony. The example at the top of the page represents the type of traffic addressed in the AT&T case discussed in my initial testimony (TDM-IP-TDM),[1] which the FCC determined starts and ends as a TDM call and therefore has undergone no net protocol conversion. The FCC has ruled that this type of call is not properly characterized as VoIP.

The example at the bottom of that page is an accurate depiction of a second call that does involve a net protocol conversion. Based on this exhibit, Qwest and Level 3 appear to agree that traffic that originates in IP on IP-compatible equipment and then is converted to TDM for delivery to a customer on the PSTN (IP-TDM) is an Interconnected VoIP call (hereafter VoIP) and is properly characterized as VoIP traffic under the ICA (in other words, on the lower half of RRD #6, traffic that moves from left (IP) to right (TDM) is VoIP traffic). Although we agree in both the testimony and exhibits, Level 3 nevertheless seeks to strike the defining language in the ICA to that effect.

Q. ARE THERE OTHER PARTS OF MR. DUCLOO'S EXHIBIT #6 WITH WHICH YOU DISAGEE?

A. Yes. Exhibit RRD # 6 appears to show VoIP calls going both ways. Qwest and Level 3 disagree on whether traffic that is originated in TDM on a PSTN phone and delivered in IP is a VoIP call for purposes of the ICA and the ESP exemption. Calls originating in TDM

---

[1] Order, *In the Matter of Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 02-361, FCC 04-97, 19 FCC Rcd 7457, ¶¶ 12-13 (April 14, 2004) (ruling that AT&T's service was a telecommunications service and is subject to access charges) ("*AT&T Declaratory Ruling*").

over PSTN telephones by Level 3 or its customers are not VoIP calls because, by definition, they would fall into the TDM-IP-TDM classification that Mr. Ducloo agrees is not an enhanced service. Mr. Ducloo's exhibit also fails to show the location of a VoIP POP, a critical piece in the exhibit and in this case. Assuming the dashed line labeled "net protocol conversion" is the VoIP POP, then under Qwest's language (which is consistent with FCC characterizations) two things are required in order for a call to be categorized as VoIP. First, it must originate in IP on IP-compatible CPE and, second, it must undergo a net protocol conversion (i.e., into TDM) before being delivered to a PSTN customer. Because the second example on Exhibit RRD #6, moving from right (TDM) to left (IP), does not meet the first criterion, it is not a VoIP call and should not be treated as VoIP under the ICA. It is simply a voice call, a TDM call to a location on the network of the VoIP provider.

Q. IS LEVEL 3'S LANGUAGE CONSISTANT WITH LEVEL 3'S POSITION THAT A PSTN-ORIGINATED CALL IS A VOIP CALL?

A. No. While Level 3 discusses general theories, it makes no comment about Qwest's language. Interestingly, Qwest has no problem with Level 3's actual language in the ICA on this issue. However, in light of the exhibits there may be a misunderstanding that needs comment for the record. Despite proposing language that states "VoIP" is "traffic that *originates* in Internet Protocol using IP-Telephone handsets . . . ," Level 3's response to Qwest Data Request No. 28 (attached hereto as Exhibit LBB-1) states that Level 3 takes the position that calls that originate in TDM, but which terminate in IP, are also VoIP calls.

Level 3's response to the data request is inconsistent with its own proposed ICA language. But more importantly, calls that terminate in IP over broadband would not be delivered to Qwest under this ICA; they would route directly to the end user customer without ever being converted to TDM and without passing through the PSTN. Qwest would never see the terminating end of such calls. As such, there is no need to address them in the ICA.

Q. WHY DOES QWEST'S ICA LANGUAGE (SECTION 7.2.2.12) MAKE THE VOIP PROVIDER'S POP THE RELEVANT LOCATION FOR DETERMINING HOW TO PROPERLY CATEGORIZE A VOIP CALL AS LOCAL OR INTEREXCHANGE?

A. Mr. Ducloo discusses how, through the use of IP equipment connected to the Internet via a broadband connection, a customer can connect anywhere there is a broadband Internet connection to make a VoIP call. (See page 62 of Mr. Ducloo's Direct Testimony). Qwest does not dispute this. Broadband IP calls originate, connect to the Internet backbone, and crisscross the country without ever touching the PSTN. That is one of the reasons the physical location of the VoIP provider's POP, the point at which the call is converted to TDM and enters the PSTN, is so important. For purposes of application of the ESP exemption, the ESP (in this case, the VoIP provider) is treated as a retail end user customer. Given the fact that the ESP exemption allows the ESP to connect to the network by purchasing local services as an end user customer, it is essential to know which LCA the VoIP POP is located in (i.e., where it is buying local service). Thus, given the nature of the traffic (assuming it is properly categorized as VoIP), and given the fact that VoIP providers

1 desire to take advantage of the benefits of the ESP exemption, it is essential that the
2 physical location of the VoIP provider's POP be one of the relevant points for properly
3 characterizing the traffic (the other relevant point is the physical location of the PSTN
4 customer to whom the call is being terminated). The language that makes the VoIP
5 provider's POP one of the relevant points of measurement is contained in Qwest's updated
6 VoIP definition and shown on page 26 of my direct testimony. Qwest's VoIP definition is
7 critical to the proper application of the ICA and should be adopted by the Commission.
8 Level 3's attempt to strike terms central to the definition of VoIP should be disregarded.

9 **Q. MR. DUCLOO ALSO DISCUSSES IP-COMPATIBLE CPE. IS MR DUCLOO'S**
10 **DISCUSSION CONSISTENT WITH LEVEL 3'S POSITION ON WHAT DEFINES**
11 **VOIP?**

12 A. Mr. Ducloo describes the specialized CPE required by VoIP: "Special phones, called "SIP"
13 phones ("SIP" stands for "Session Initiation Protocol" . . .) can be used for VoIP. These
14 phones have small computers built into them that packetize the voice data and generate SIP
15 messages." (Page 62, lines 8-9) I agree with that statement. Converting the call to IP
16 protocol at the customer premises (wherever that may be) with special equipment de facto
17 makes the call an IP originated call that must travel over a broadband connection. This is
18 why Level 3's attempt to strike the language that requires that the call originate in this type
19 of equipment on the customer premises is surprising. If the end user customer does not
20 have this equipment on the customer premises to convert the call to IP, the call must be
21 originated as a traditional PSTN call in TDM and thus, when delivered to Qwest in TDM,

1 cannot have undergone a net protocol conversion. Qwest's proposed ICA language for the
2 definition of VoIP "traffic that originates in Internet Protocol *at the premises of the party*
3 *making the call* using IP-Telephone handsets, *end user premises*..." (emphasis added)
4 requiring that the specialized equipment Mr. Ducloo describes is critical. The language
5 requiring that the IP equipment is at the customer's premises is an absolutely necessary
6 piece to the definition to assure that the call is an IP originated call. Therefore, Qwest's
7 language should be adopted.

8 **Q. DO MR. DUCLOO AND MR. GATES DISCUSS THE COSTS OF TERMINATING**
9 **CALLS IN THEIR TESTIMONY?**

10 A. Yes. Mr. Ducloo and Mr. Gates discuss whether the costs of terminating various types of
11 calls (including VoIP, local calls, intrastate toll calls, and interstate toll calls) differ. My
12 general comments to those discussions are that through long and extensive cost dockets the
13 Commission has established rates that Qwest can charge for various types of calls. An
14 arbitration of contract terms for one CLEC is not the appropriate forum for changing
15 Commission established rates that apply to all IXCs, CLECs, or other carriers that use the
16 Qwest network. The isolated approach Level 3 proposes would unduly distort the market
17 and could create unanticipated consequences or opportunities for regulatory arbitrage.

18 **Q. MR. DUCLOO STATES THAT "QWEST TERMINATES VOIP CALLS TO ITS**
19 **END USER CUSTOMERS IN THE SAME MANNER THEY WOULD USE TO**
20 **TERMINATE REGULAR PSTN BASED LOCAL CALLS TO THEIR END USER**
21 **CUSTOMERS. THERE ARE NO EXTRA PROCESSES, NO ADDITIONAL**

TRANSPORT, AND NO ADDITIONAL SWITCHING." IS HIS STATEMENT ACCURATE?

A. This statement is accurate only for the termination of "regular PSTN based *local calls.*" (Page 68, line 19), which is the only type of call his answer relates to. But that misses the point. Both parties are in agreement that terminating access charges do not apply to local calls (whether it is a PSTN originated local call or a local call handed off by the VoIP POP in the LCA). However, Mr. Ducloo's testimony is conspicuously silent about how, for example, VoIP calls from an ESP in Phoenix with Phoenix local exchange service, will be delivered to a Qwest PSTN customer in Flagstaff. Yet that is the central issue in dispute with regard to VoIP in this docket. The Qwest language in 7.2.2.12 is intended to make clear that when a Phoenix Level 3 VoIP provider with a Phoenix local POP terminates a call to a Phoenix PSTN customer, it is a local call, and will be treated that way under the ICA. The call is measured from the VoIP POP to the Qwest PSTN customer. The contract language should make clear that a VoIP call from the Phoenix-based VoIP customer to a Qwest PSTN customer in Flagstaff is not a local call under the ICA, nor should it be.

Q. DO YOU HAVE COMMENTS REGARDING MR. GATES' COST STATEMENTS ON PAGES 52-53?

A. Yes. Level 3 moves the discussion away from Commission rules and onto costs. Mr. Gates states that it would not be appropriate for VoIP to be subject to access charges in any event. An example illustrates the special treatment that Level 3 seeks. First, assume that Level 3's VoIP provider customer and an IXC each have POPs located in Phoenix in

adjoining rooms in the same building. Second, assume that a VoIP call from Level 3 destined for a Qwest customer in Flagstaff is delivered to Qwest, and that Qwest transports the call to Flagstaff and delivers it to the PSTN customer. Third, assume that a customer of the IXC does exactly the same thing: delivers a call to Qwest at the Phoenix POP, and that Qwest transports the call to Flagstaff and delivers it to the customer. It is a fact, as Mr. Gates states, that precisely the same Qwest processes, transport, and switching are necessary to deliver both calls, yet under Level 3's proposal Level 3 would pay Qwest $.0007 per minute to terminate the VoIP call, while the IXC would pay Commission prescribed terminating exchange access rates to deliver the call to the same customer. For both calls, the same processes, transport and switching are necessary, but Level 3 seeks to exempt itself from the rules that apply to other carriers. Comparing costs does not resolve the consequences of disparate regulatory treatment being applied to certain traffic. In the example above, there is absolutely no difference to the PSTN between the two calls: both are delivered to Qwest in TDM, both are voice calls, both use precisely the same processes and facilities to terminate, yet Level 3 proposes completely different regulatory treatment be given to the Level 3 VoIP call. One of the goals of the 1996 Act is to create a competitively-neutral environment—Level 3's proposal is a major step in the wrong direction.

Q. MR. GATES MAKES THE COMMENT; "BROADBAND VOIP SERVICES DO NOT IMPOSE ANY ADDITIONAL COSTS ON THE ILECS OR THEIR NETWORK EITHER." (PAGE 55, LINES 14-15). HE ALSO IMPLIES THAT

VOIP SHOULD BE ALLOWED TO USE THE PSTN AT RATES LOWER THAN THE ACCESS CHARGES THAT APPLY TO OTHER CARRIERS. (PAGES 55-56). PLEASE COMMENT.

A. Again, Mr. Gates is really arguing that Level 3 should be exempt from the current rules and regulations that govern the rest of the industry. Mr. Ducloo, at page 13 of his direct testimony says, "Level 3 is not a traditional competitive local exchange carrier ("CLEC")". I agree that Level 3 does not appear to be a typical CLEC. In fact, Level 3 is much more like an ESP seeking inter-LEC compensation. The VoIP call that is converted to TDM, that uses the PSTN just like other types of PSTN calls, should not be treated in a special, discriminatory manner by virtue of the fact that the VoIP call was once in IP protocol or that Level 3 characterizes itself as atypical.

Yet, despite these facts, Mr. Gates seeks a decision from the Commission that would constitute a major policy shift, to permit either a lower charge or no access charge, on calls bound from Phoenix to LCAs at the other end of the state, if those calls just happened to have once been VoIP calls before being converted into TDM. I can certainly understand Level 3's desire to reduce or eliminate intrastate access charges—it would certainly be in Level 3's business interest, particularly if Level 3's competitors operated under a vastly different set of rules. But such a radical step, if undertaken at all, should be done only after the Commission considers a broader range of interests than are represented in a language dispute in an arbitration between two companies. Before enacting fundamental reform as proposed by Level 3, other local exchange carriers, independent telephone companies, IXCs, wireless providers, and consumers who benefit from what Level 3 refers to as

"subsidy-laden" charges, should all have a place at the table so that a reasoned decision, one that takes into account the full consequences, can be reached. An industry forum, for example, would be a reasonable way of addressing these issues. Such an important policy change should not be made in an arbitration proceeding for one specialized CLEC in one agreement.

Q. HAS THE FCC ALSO ADDRESSED THE ISSUE OF DIFFERENT CHARGES FOR SIMILAR NETWORK FUNCTIONS?

A. Yes. In the *First Report and Order*, the FCC noted and rejected the same points that Mr. Gates and Mr. Ducloo raise:

> "We recognize that transport and termination of traffic, whether it originates locally or from a distant exchange, involves the same network functions. Ultimately, we believe that the rates that local carriers impose for the transport and termination of local traffic and for the transport and termination of long distance traffic should converge. We conclude, however, as a legal matter, that transport and termination of local traffic are different services than access service for long distance telecommunications. Transport and termination of local traffic for purposes of reciprocal compensation are governed by sections 251(b)(5) and 252(d)(2), while access charges for interstate long-distance traffic are governed by sections 201 and 202 of the Act. The Act preserves the legal distinctions between charges for transport and termination of local traffic and interstate and intrastate charges for terminating long-distance traffic."[2]

Q. SHOULD ALL TDM CALLS USING THE PSTN BE TREATED THE SAME EVEN IF SOME WERE ORIGINALLY VOIP CALLS?

A. Yes. On page 55 Mr. Gates correctly quotes the FCC: "Dial-up, or narrowband, Internet access utilizes the same PSTN infrastructure that telephone subscribers use to place

1 traditional circuit-switched voice calls." Qwest agrees with the FCC. Mr. Gates' ultimate
2 proposals, however, are completely contrary to the substance of the quoted language. Mr.
3 Gates ends his particular answer by saying, in an incongruous way, that "[t]here is simply
4 no economic justification for treating IP-Enabled services as if they were traditional
5 services." (Page 56, lines 3-4). To the extent that Mr. Gates believes a call to an ESP in
6 TDM protocol is "IP-enabled," then his conclusion makes no sense. If dial-up access (i.e.,
7 in TDM format) to an ESP to make a VoIP call is identical to a traditional voice call (and it
8 is), then there is no rational reason that a dial-up toll call to make a VoIP call (which is
9 precisely what VNXX is) should not be treated like a traditional voice toll call. A dial-up
10 call in TDM over a modem to a VoIP ESP is indistinguishable to the PSTN to a voice call
11 placed over the PSTN. Thus, the reality reflected in the quote from the FCC is that voice
12 calls and dial-up calls to a VoIP POP are the same, and should be treated the same.

13 **Q. MR. GATES STATES THAT NEITHER PARTY SHOULD BE PERMITTED TO**
14 **IMPOSE COSTS ON THE OTHER PARTY THROUGH AN**
15 **INTERCONNECTION AGREEMENT FOR NO GOOD REASON (PAGE 4). DO**
16 **YOU AGREE WITH HIM?**

17 A. I agree with the general concept he articulates, but disagree with the conclusions that Mr.
18 Gates ultimately reaches. The goal of fair and equal imposition of costs is one of the
19 reasons the FCC has, over the years, sought and received extensive comments on how
20 network services should be priced, and has made determinations identifying the network

---

[2] First Report and Order and Notice of Proposed Rulemaking, *In the Matters of Implementation of the Local*

elements and services for which it is appropriate to impose charges on other carriers. Likewise, the Arizona Commission has held extensive cost docket hearings with numerous participants and expert witnesses and has considered a full range of proposals as to what each party could charge for specific services under interconnection agreements. The rates set forth in Exhibit A to the interconnection agreements were reached only after extensive consideration by the Commission. The language that typically appears in interconnection agreements that imposes inter-carrier charges did not simply come into being for "no good reason." This language is the product of lengthy and often contentious proceedings. In the end, while Qwest and other parties undoubtedly disagree with specific decisions that have been reached, the result is an effort by the Commission to balance the interests of the parties, to impose reasonable charges based on benefit to the parties, and to promote results that are as competitively neutral as possible.

Q. WHAT IS THE REAL DISPUTE WITH LEVEL 3 OVER PAYMENT OF QWEST'S TARIFFED CHARGES FOR CALLS FROM THE VOIP POP TO THE QWEST PSTN END USER CUSTOMER?

A. The fundamental problem with the approach taken by Level 3 is that it operates from the premise that, as the provider of new services on a modern IP network, it is entitled to a free pass from the obligations imposed on other carriers when it uses the PSTN, even when its use of the PSTN is identical to the use of other carriers. I doubt very much that any carrier (IXC, ILEC or CLEC) is completely happy with the intercarrier compensation process that

---

Competition Provisions in the Telecommunications Act of 1996, FCC 96-325, ¶ 48 (August 1, 1996).

1 currently exists. Most carriers, Qwest included, hope that the FCC will enact changes that
2 will make intercarrier compensation mechanisms more rational than they are today. But,
3 for the time being, the system is what it is, and the existing intercarrier compensation
4 methods achieve a form of rough justice. Level 3, while disparaging the PSTN, has made
5 no effort to duplicate it, and intends to utilize it in order for Level 3 and its customers to
6 complete calls. Qwest believes that, along with the opportunity for Level 3 to use the
7 PSTN for its own business purposes, Level 3 has an obligation to pay its fair share in a
8 manner similar to the obligations of other carriers, no matter whether Level 3 is providing
9 the latest state of the art services or more traditional TDM based services. I agree that costs
10 should not be imposed on one party for "no good reason"—but that does not mean, as
11 Level 3 apparently believes, that one type of carrier is essentially granted a free ride in
12 relation of other carriers or in relation to the network upon which it seeks that free ride.

13 **Q. ON PAGES 54-55 OF HIS TESTIMONY, MR. GATES DISCUSSES THE RETAIL**
14 **PRICES THAT QWEST COMMUNICATIONS CORPORATION ("QCC")**
15 **CHARGES FOR VOIP SERVICES. IS THAT RELEVANT TO THIS DOCKET?**

16 A. No. In fact, it is unclear precisely what his point is. QCC does offer VoIP, as do many
17 other providers. Qwest has no reason to believe QCC's pricing is dramatically different
18 than other VoIP providers, including Level 3's. But that has nothing to do with this case.
19 The relevant issues for this docket are based on the fact that Level 3, a CLEC,
20 interconnects with Qwest and also offers local connection to its VoIP provider customers.
21 The fundamental issue before the Commission is to decide how that interconnection can be
22 provided on a fair and reasonable basis. Mr. Gates offers no evidence, nor is there any, that
23 Qwest provides preferential treatment to QCC. In fact, QCC terminates VoIP calls within

1 the LCA using the ESP exemption, and QCC VoIP calls terminating to a PSTN customer
2 outside the LCA are routed to an IXC. Qwest requires QCC VoIP traffic to be routed in the
3 same manner as it is asking Level 3 to route traffic. As the prior response makes clear,
4 Level 3 is seeking a considerably more advantageous interconnection arrangement with
5 Qwest than QCC receives. Qwest's position is that VoIP providers are ESPs and should
6 not be disadvantaged in relation to other carriers, nor should it receive any preferential
7 treatment beyond the advantages already provided to it from the ESP exemption.

8 **Q. PLEASE RESPOND TO MR. GATES' ARGUMENT THAT VOIP SHOULD BE**
9 **FREE FROM REGULATION. (PAGES 59-60).**

10 A. Qwest agrees that VoIP should be free from regulation. Mr. Gates accurately quotes
11 Qwest's position on VoIP regulation on page 63 of his testimony. But again, Mr. Gates
12 misses the point. The issue before the Commission is how Level 3, in its role as a CLEC,
13 interconnects to the PSTN and exchanges traffic with Qwest, including traffic from ESP
14 end users that purchase connection to the local network from Level 3. In accord with
15 Section 251(c)(2) of the Act, the Qwest/Level 3 ICA presumes interconnection between
16 local exchange carriers ("LECs"). In reality, however, the interconnection between Qwest
17 and Level 3 may not be interconnection between two LECs. Level 3 does not appear to be

1 a LEC, by providing telecommunications service.[3] It remains only an ESP by providing
2 only information services.
3
4 To Mr. Gates' point on deregulation of VoIP, the fact is that VoIP is not subject to the kind
5 of regulation to which traditional telecommunications services are subjected. No one
6 regulates the prices of VoIP providers. Furthermore, an IP-IP VoIP call is not regulated in
7 any manner whatsoever. When a Level 3 customer originates a call in IP format over

---

[3] The Act defines "telecommunications service" to mean "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used." 47 U.S.C. § 153(46). In turn the Act defines "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." 47 U.S.C. § 153(43). A "telecommunications carrier" is any provider of telecommunications service that is not an aggregator of telecommunications services. 47 U.S.C. § 153(44). Finally, "information service" means "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service." 47 U.S.C. § 153(20). [Although the FCC has interpreted them for us, how do these definitions get us to the view that telecommunications service and information service are mutually exclusive?] 47CFR 51.701 Scope of transport and termination pricing rules. (a) The provisions of this subpart apply to reciprocal compensation for transport and termination of telecommunications traffic between LECs and other telecommunications carriers. (b) Telecommunications traffic. For purposes of this subpart, telecommunications traffic means: (1) Telecommunications traffic exchanged between a LEC and a telecommunications carrier other than a CMRS provider, except for telecommunications traffic that is interstate or intrastate exchange access, information access, or exchange services for such access (see FCC 01-131, ¶¶¶ 34, 36, 39, 42-43);

Tel Act Section 251(g) CONTINUED ENFORCEMENT OF EXCHANGE ACCESS AND INTERCONNECTION REQUIREMENTS. On and after the date of enactment of the Telecommunications Act of 1996, each local exchange carrier, to the extent that it provides wireline services, shall provide **exchange access, information access, and exchange services** for such access to interexchange carriers and information service providers in accordance with the same equal access and nondiscriminatory interconnection restrictions and obligations (including receipt of compensation) that apply to such carrier on the date immediately preceding the date of enactment of the Telecommunications Act of 1996 under any court order, consent decree, or regulation, order, or policy of the Commission, until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission after such date of enactment. During the period beginning on such date of enactment and until such restrictions and obligations are so superseded, such restrictions and obligations shall be enforceable in the same manner as regulations of the Commission.

broadband, Level 3 hauls it across the country on its backbone fiber network in IP, and terminates the call in IP format over broadband to a residence or business with a broadband connection; there is not a single vestige of regulation of that call. Nor does the call involve the PSTN or an interconnection with a CLEC. But, and this is the point that Mr. Gates ignores, if a CLEC such as Level 3 wishes to interconnect and terminate traffic on the PSTN then the interconnection agreement and the Arizona Commission are involved.

There is a fundamental difference between regulating VoIP calls on the Internet, which neither Qwest nor Level 3 support, and the rules governing an ICA between LECs. As a CLEC, the arbitration of this ICA is subject to no more regulation than an agreement between Qwest and any other LEC. But given that Level 3 is operating as a CLEC that wants to use the portion of the PSTN owned by an ILEC, subjecting Level 3 to the rules that govern all other carriers is completely reasonable, and subjects Level 3 to no more regulation than other unregulated providers. If what Mr. Gates is trying to avoid under the guise of freeing VoIP from regulation is that Level 3 not be subject to the same interconnection and compensation requirements as other carriers, Qwest adamantly disagrees.

Q. IS IT THE REGULATION OF IP TRAFFIC ON THE INTERNET OR THE REGULATION OF PSTN TRAFFIC IN TDM THAT LEVEL 3 REALLY OBJECTS TO?

A. It is the rules that govern Level 3's use of PSTN that Level 3 is really objecting to. Mr. Gates misinterprets the issue of service regulation from the necessary demands of appropriate intercarrier compensation when two carriers exchange traffic. In other words,

1 Level 3's concept of "no regulation" is that it should receive preferential treatment for use
2 of the PSTN. Long distance prices have not been regulated for years, and wireless rates
3 have never been the subject of state service regulation. That has not meant that IXCs and
4 wireless providers are free from intercarrier obligations when they use the local wireline
5 PSTN for call origination and termination. Access charges still apply to these
6 "unregulated" calls. In fact, Level 3's concept of no regulation of VoIP really means that
7 other companies, like IXCs and wireless providers, not to mention CLECs that are
8 attempting to provide wireline competition to ILECs and to other CLECs, should remain
9 subject to intercarrier compensation obligations, while Level 3, which markets to VoIP
10 providers, gets preferential treatment. That result certainly was not, and is not, Qwest's or
11 QCC's position. In effect, Level 3 believes it should be able to have its customers originate
12 calls in IP, and then, simply because Level 3 converts those calls to TDM before sending
13 them to the PSTN, it should have the ability to reach millions of PSTN customers in areas
14 from the most urban to the most rural without the necessity of meeting the same rules that
15 apply to other carriers interconnecting to the PSTN.

16 **Q. ON PAGE 7 OF HIS TESTIMONY, MR. DUCLOO SUGGESTS THAT QWEST**
17 **ADVOCATES THE IMPOSITION OF SWITCHED ACCESS CHARGES ON ALL**
18 **VOIP TRAFFIC. PLEASE COMMENT ON HIS CONCLUSION.**

19 A. As Level 3 did in its Petition, Mr. Ducloo mischaracterizes Qwest's position on this issue;
20 his suggestion that Qwest seeks to impose switched access charges on *all* VoIP (Page 7,
21 lines 2-3) is simply not true. Qwest does not seek to impose access charges on any traffic

that properly qualifies for the ESP exemption. In fact, Qwest's position affirms the ESP exemption, but does so based on a proper interpretation of the exemption. To the extent VoIP traffic meets the ESP exemption requirements, no access charges can or should be applied; if the traffic does not meet those requirements, neither the ESP exemption, nor a sound "competitively neutral" policy, suggests that this type of VoIP traffic should receive preferential treatment—it should be subject to the same rules that apply to other similar traffic. It is this Qwest position that the same rules should apply to Level 3's traffic as it does to other interconnectors' traffic that Level 3 objects to.

Q. DOES QWEST'S LANGUAGE AFFIRM THE ESP EXEMPTION AND WHAT IS LEVEL 3'S RESPONSE TO THAT LANGUAGE?

A. Yes. Qwest language in 7.2.2.12 affirms the ESP exemption. The Qwest language that Level 3 seeks to remove from the ICA states:

> 7.2.2.12 VoIP Traffic. VoIP traffic as defined in this agreement shall be treated as an Information Service, and is subject to interconnection and compensation rules and treatment accordingly under this Agreement based on treating the VoIP Provider Point of Presence ("POP") is an end user premise for purposes of determining the end points for a specific call.
>
> > 7.2.2.12.1 CLEC is permitted to utilize LIS trunks to terminate VoIP traffic under this Agreement only pursuant to the same rules that apply to traffic from all other end users, including the requirement that the VoIP Provider POP must be in the same Local Calling Area as the called party.

Q. DOES LEVEL 3 RECOGNIZE THAT THE ESP EXEMPTION REQUIRES COMPLIANCE WITH CERTAIN REQUIREMENTS?

1 A. Yes. Mr. Ducloo states: "My understanding is that the status of traffic as ESP traffic
2 depends on certain technical characteristics of the entities that provide it, so that entities
3 that qualify as ESPs are entitled to have their traffic rated on an end-user basis, as opposed
4 to on a carrier basis." (Page 7, lines 3-6). That is what Qwest states in its proposed VoIP
5 definition and in Section 7.2.2.12. Qwest's definition of VoIP traffic incorporates the
6 requirements of the ESP exemption. It treats the VoIP provider as an end user customer as
7 required by the ESP exemption, and treats the VoIP provider's POP as an originating and
8 terminating location for purposes of rating the call and applying the appropriate form of
9 intercarrier compensation.

10 **Q. DOES QWEST'S PROPOSED LANGUAGE ACCURATELY CAPTURE THE**
11 **TECHNICAL CHARACTERISTICS MR. DUCLOO REFERS TO?**

12 A. Yes. Consistent with the ESP exemption, Qwest's interpretation includes both the
13 advantages and limitations that come with end user customer status. The principal
14 advantage of the exemption is that ESPs may originate and terminate traffic within the
15 LCA in which its POP is located without being required to pay originating and terminating
16 access charges. The limitation, however, is the same limitation imposed on end user
17 customers. The ESP is permitted to connect to the local network by purchasing out of the
18 local exchange tariffs or catalogs. An ESP cannot interconnect under a section 251 ICA.
19 ESPs are the customers of the ILEC or CLEC. The ESP exemption applies within the
20 LCAs in which the ESP locates a POP, but (just as the rules apply to business end user

1 customers) the exemption does not allow for free calling outside of those LCAs (it certainly
2 does not provide for LATA-wide origination and termination of call, as Level 3 implies).

3 **Q. DOES LEVEL 3 AGREE THAT THE ESP EXEMPTION, AND PURCHASE FROM**
4 **THE LOCAL EXCHANGE TARIFFS, PERMITS ONLY LOCAL CALLING?**

5 A. Since Level 3 does not address the contract language specifically, it is not entirely clear
6 what Level 3's position on the ESP exemption is. To the extent Level 3 asserts the ESP
7 exemption requires Qwest to terminate a call from a Level 3 ESP customer's VoIP POP
8 located in Phoenix, to a Qwest Flagstaff end user PSTN customer, without the VoIP
9 provider handing off the call to a PICed IXC, and the IXC paying access charges, Qwest
10 strongly objects to Level 3's interpretation of the ESP exemption. This would create an
11 inappropriate and competitively preferential result for Level 3 and its VoIP provider
12 customers. Just as any Phoenix end user customer would be required to hand off its call to
13 an IXC to deliver that customer's traffic to Flagstaff, so should the ESP. Qwest's language
14 is consistent with this interpretation and application of the ESP exemption.

15 **Q. IS LEVEL 3'S CONTRACT LANGUAGE CONSISTENT WITH THE ESP**
16 **EXEMPTION?**

17 A. No. The problem with Level 3's position is that it attempts to strike language that says the
18 ESP's POP is an element in determining the jurisdiction of the call. Without this language
19 the distinction between a toll call and a local call disappear. Level 3 misinterprets the ESP
20 exemption, apparently based on the erroneous and self-serving conclusion that unlike end
21 user customers who receive only a LCA-wide exemption from access charges, Level 3's

1 VoIP providers are somehow entitled to LATA-wide (or perhaps even wider) exemption
2 from access charges because the traffic originated in IP. End user customers are not
3 entitled to those benefits, and since an ESP is treated as an end user customer for purposes
4 of the exemption, I am aware of nothing that would suggest that it should be entitled to the
5 broader treatment that Level 3 apparently advocates. In effect, Level 3 desires the
6 exemption, which treats an ESP as an end user, to give it rights those same end users do not
7 have.

8 **Q. PLEASE COMMENT ON MR. DUCLOO'S EXHIBITS RRD #1 AND #2.**

9 A. I think Mr. Ducloo's exhibits accurately show Level 3's real business. Exhibit RRD #1
10 looks very similar to the networks of several long distance carriers with whom Qwest
11 interconnects. It is an impressive network from Boston to Phoenix to Los Angeles for
12 long-haul traffic across the nation and the world. But the ICA being arbitrated here is
13 between LECs. Level 3 seeks to originate and terminate its long-haul IP traffic within
14 Arizona as a CLEC. Exhibit RRD #2 is similar to Exhibit RRD #1 in that it also depicts
15 long-haul IP networks. Those links, however, are not particularly useful for a discussion
16 about local interconnection and local service. As a provider of local service in Arizona,
17 what is important is the map of Level 3's Arizona local network (Exhibit RRD #3). This
18 exhibit depicts Level 3 with POIs located in Arizona, but the exhibit does not depict that
19 Level 3 has any substantial local network beyond those POIs. For that, it must interconnect
20 with Qwest (and other ILECs) and have specific interconnection language providing for

origination and termination of "local" calls. That is what the 1996 Act provides and what the ICA in this case is intended to accomplish.

Q. MR. DUCLOO CHARACTERIZES THE VOIP TRAFFIC ISSUE AS "WHETHER QWEST MAY PROHIBIT LEVEL 3 FROM UTILIZING LOCAL INTERCONNECTION FACILITIES TO TERMINATE INTERNET-ENABLED TRAFFIC, SPECIFICALLY FOR VOIP TRAFFIC." (PAGE 54, LINES 12-14). IS THIS AN ACCURATE STATEMENT OF THE VOIP ISSUE IN THIS CASE?

A. No. This issue statement again misstates Qwest's position. Qwest has no intention of prohibiting the termination of VoIP traffic on Qwest's network, nor does Qwest take the position that no VoIP traffic can be terminated on local facilities. Qwest's proposed language clearly provides for interconnection of Qwest's network with Level 3's network to allow for the exchange of traffic with Level 3, the CLEC. Qwest's language also identifies how, and under what different circumstances, the traffic will be terminated. The real issue is not whether traffic will be exchanged and terminated, but whether a VoIP provider customer of Level 3 can obtain LATA-wide calling or must be bound by the local vs. toll distinctions that other end user customers abide by.

Q. DOES THE QWEST LANGUAGE PERMIT LEVEL 3 TO TERMINATE VOIP TRAFFIC WITHIN THE SAME LCA?

A. Yes. The VoIP provider may terminate its local traffic (traffic within the same LCA as the VoIP POP) over local LIS facilities, and is not required to terminate its local traffic with switched access connections such as Feature Group D. However, for traffic terminated in a

1 LCA different than the LCA where the VoIP POP is located (i.e., interexchange calls) the
2 traffic should not be routed over local trunks (it should be handed off to an IXC, on FGD
3 connections and the IXC should pay the appropriate terminating access charges). Mr.
4 Ducloo describes this routing on page 25 of his direct testimony.

5 **Q. IS THE ESP EXEMPTION THE SAME WHETHER THE VOIP PROVIDER IS A**
6 **CUSTOMER OF LEVEL 3 OR QWEST?**

7 A. Yes. Qwest's position on the proper application of the ESP exemption has nothing to do
8 with whether the ESP is directly connected to Qwest's network or to Level 3's network. In
9 both cases, in the FCC's words, the ESP is treated as an end user customer and "thus may
10 use *local* business lines for access for which they pay *local* business rates and subscriber
11 line charges."[4] That rule did not change with the passage of the 1996 Act and Qwest is not
12 proposing a change in this case. In fact, it is Level 3 that is proposing a fundamental
13 change in the application of the ESP exemption. Although Level 3 acknowledges that the
14 historical application of the ESP exemption allowed ESPs to connect their equipment to
15 Qwest's network "on the same basis as any business end user," it has leapt to the
16 unsupported conclusion that the ESP exemption now gives it rights that business end users
17 do not have today nor are part of the services provides by a "local business line" (i.e.,
18 LATA-wide ability to terminate calls without incurring access or toll charges). Nowhere in
19 its Petition or in its testimony does Level 3 provide any support for this proposition, nor
20 does it provide anything more than the cryptic suggestion that ESPs on Level 3's network

are somehow invested with greater rights than business end users on the PSTN.[5] Mr. Ducloo points out that the ESP can purchase the local connection from either Level 3 or Qwest, a proposition with which Qwest agrees, but that does nothing to change the proper application of the ESP exemption.

Q. DO MR. DUCLOO'S EXHIBITS RRD #7 AND RRD #8 ALSO RAISE AN ISSUE OF HOW LEVEL 3 VIEWS THE ESP EXEMPTION?

A. Yes. Although Mr. Ducloo's testimony did not address specific disputed language sections, I have attempted to respond to the statements that Level 3 did file. Exhibits RRD #7 and RRD #8 depict how an ESP could purchase local connections from either Level 3 or Qwest. While these exhibits show the connections to end offices, neither of Mr. Ducloo's exhibits make any reference to the LCAs within which those end offices are located. As discussed in prior responses, LCAs (which Level 3 euphemistically characterized as "artificial geographic designations" in its Petition) go to the very heart of the application of the ESP exemption. The ESP connects to the PSTN as an end user customer; this does not entitle the ESP to LATA-wide termination at local calling "end user rates," as the Level 3 testimony implies. Adding LCAs to the picture in Exhibit RRD #8 would more accurately depict how the ESP exemption really works and make clear what Level 3 is advocating.

---

[4] Order, *In the Matter of Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, 3 FCC Rcd 2631, ¶ 20, n 53 (1988) ("*ESP Exemption Order*").

[5] Another example of the vagueness of Mr. Ducloo's testimony on this point is his statement that ESP's are "not subject to access charges though the underlying communication may well involve transport over significant distances." (Page 47, lines 12-14). It is unclear whether a "significant distance" is from the north end to the south end of the Phoenix EAS area or whether he means from Phoenix to Flagstaff. If it is the latter, his statement is inaccurate.

For example, in the lower right hand corner of that exhibit, Mr. Ducloo shows an ESP connected to the Qwest network. If that ESP's POP is located in Phoenix, the ESP would be able to purchase Phoenix local service out of Qwest's local exchange tariffs. If the other end offices depicted in Mr. Ducloo's exhibit are also connected to Qwest end offices in the Phoenix LCA, then the ESP could terminate traffic to each of the phones shown in the exhibit without incurring terminating access charges. However, if the three end offices with telephones depicted on Exhibit RRD #8 were in Flagstaff, Tucson, and Sierra Vista (all of which are in different LCAs than Phoenix), the ESP exemption does not allow the Qwest end user ESP to terminate traffic to those other LCAs (just as a typical business end user customer would not be able to do). Under this example, the ESP customer of Qwest would be required to hand off any call bound for those exchanges to an IXC. The call is measured, for jurisdictional purposes, between the ESP's POP and the party called. It is that simple; that is what the ESP exemption requires. By not depicting the LCA boundaries, Level 3 is masking the real issue before the Commission.

Q. WOULD YOU PLEASE SUMMARIZE YOUR REBUTTAL COMMENTS REGUARDING VOIP TRAFFIC?

A. Yes. VoIP is traffic that originates in IP and terminates on the PSTN using TDM protocol. It originates in one protocol and is converted to TDM, thus resulting in a net protocol conversion; this, in turn, makes it an enhanced service call entitled to the ESP exemption. All other types of calls that Level 3 discuses, such as IP to IP, or TDM to IP, do not terminate over the PSTN and do not involve Level 3's ICA with Qwest. Dial up calls to a

1 VoIP provider are TDM to a VoIP provider and are treated as PSTN calls; the fact that they
2 may later be converted to IP is of no consequence. Qwest's definition and Section 7.2.2.12
3 capture these necessary requirements, and Level 3's attempts to strike them should be
4 rejected. Level 3's arguments that VoIP calls are somehow unique and entitled to different
5 treatment when terminating to distant towns should also be rejected. These calls are
6 subject to the same local and long distance classifications as other PSTN calls on the
7 network. If an ESP, in this case a VoIP provider, purchases a local connection out of the
8 local tariffs, then calls from the ESP bound for other LCAs in the state must be routed
9 through an IXC.

10 **IV. DISPUTED ISSUE 1A: SECTION 7.1.1.1 OPERATION AUDITS**

11 **Q. DOES LEVEL 3 ADDRESS SECTION 7.1.1.1, OPERATION AUDITS, IN ITS**
12 **TESTIMONY?**
13 A. No. Level 3 provided no testimony regarding its dispute with the language contained in
14 Section 7.1.1.1, identified on Level 3's Issue List as Issue 1a.

15 **V. DISPUTED ISSUE 1A: SECTION 7.1.1.2 CERTIFICATION**

16 **Q. DOES LEVEL 3 ADDRESS SECTION 7.1.1.2, CERTIFICATION, IN ITS**
17 **TESTIMONY?**
18 A. No. Level 3 provided no testimony regarding its dispute with the language contained in
19 Section 7.1.1.2, identified on Level 3's Issue List as Issue 1a. Qwest's proposed language

1 requests that Level 3 certify that the connections it sells to its customers will comply with
2 the ESP exemption, and comply with the terms of the ICA. Level 3, however, wants to
3 remove any obligation from the ICA.

4 **Q. DOES QWEST'S LANGUAGE IN ANY WAY PROHIBIT LEVEL 3 FROM**
5 **PERMITTING ESP'S TO CONNECT TO LEVEL 3'S NETWORK?**

6 A. Absolutely not. Qwest is not attempting to prevent VoIP providers from obtaining
7 connection to the PSTN through local service from Level 3, or to prevent them from
8 receiving the benefit of the ESP exemption. But as we have seen, and as Level 3 seems to
9 agree, not every call that once was in IP is entitled to the ESP exemption. And it is for this
10 reason that Qwest is requesting that Level 3 certify that the connections it sells to its
11 customers will comply with the ESP exemption, and comply with the terms of the ICA.
12 Level 3, however, wants to remove any obligation from the ICA by striking the
13 certification language. Qwest simply is requesting assurance that Level 3 will enforce the
14 ESP exemption for its customers on the same basis that other LECs, like Qwest, apply the
15 exemption to its ESP customers. The Commission should adopt Qwest's proposed
16 certification language.

17 **VI. DISPUTED ISSUE 3 VNXX TRAFFIC**

18 **Q. PLEASE EXPLAIN THE DISPUTE RELATING TO VNXX TRAFFIC?**

19 A. Level 3 and Qwest disagree on the definition of VNXX and the treatment of and
20 compensation for VNXX traffic. Just as Level 3's testimony on VoIP essentially ignored

1 the contract language, neither Mr. Ducloo's nor Mr. Gates' testimony specifically
2 addresses the VNXX contract language in dispute. All they do is discuss in broad terms the
3 issues related to VNXX traffic. Since I addressed issues related to the specific language in
4 my direct testimony, I will respond to those broad comments in this testimony.

5 **Q. MR. DUCLOO STATES THE ONLY THING THE PSTN "KNOWS" ABOUT A**
6 **CALL IS THE ORIGINATING AND TERMINATING TELEPHONE NUMBER.**
7 **(PAGE 79, LINES 6-8). PLEASE COMMENT ON HIS STATEMENT.**

8 A. I discuss this issue in more detail later in connection with my testimony on Arizona and
9 federal law as it applies to the local/toll distinction. The fact is that historically telephone
10 companies have routinely assigned telephone numbers based upon the geographic location
11 of the switch to which that number is connected. Thus, to imply that the PSTN knows
12 nothing about the physical location of the called and calling parties is simply untrue. It
13 was not until CLECs began obtaining numbers associated with LCAs that were assigned
14 to customers with absolutely no physical presence in that LCA, that geographical
15 information related to calls became suspect. That is not the fault of the network, nor does
16 it represent an effort by carriers or regulatory commissions to redefine local calls. It is
17 Level 3, and other CLECs like it, that disregard the geographical nature of calls mandated
18 by state law and which has been inherent in federal law for decades. As Mr. Linse points
19 out in his testimony, the numbers that Level 3 uses in Arizona are all Geographic NPA
20 numbers. In other words, they are numbers that should, according to the Central Office
21 Code Administration Guidelines ("COCAG"), correspond to discrete geographic areas.

1 Level 3's numbers do not correspond to discrete geographic areas, and Level 3 proposes
2 that the Commission sanction this misuse of numbering resources. The Commission
3 should reject Level 3's practice.

4 **Q. MR. DUCLOO PROVIDES AN ARGUMENT WHY, WITH NEWER**
5 **TECHNOLOGIES, THE GEOGRAPHIC LOCATION OF CUSTOMERS IS NO**
6 **LONGER RELEVANT (PAGE 85). DO YOU AGREE WITH HIS**
7 **CONCLUSIONS?**

8 A, No. Perhaps technically it is possible for Level 3 to declare several states to be one LCA,
9 but the issue here relates to the PSTN and Level 3's use of it. There are two major
10 problems with Mr. Ducloo's argument. The first, of course, is that the entire PSTN and the
11 regulatory structure related to retail service pricing and intercarrier compensation is based
12 on the geographic location of the parties to a call. FCC jurisdiction over interstate calls is
13 determined by the NPA NXX of the calling and called parties because those NPA NXXs
14 have traditionally related to geographic areas. State telephone rates are established
15 recognizing both local and intrastate toll calls based on this numbering scheme. Intrastate
16 access and exchanges of traffic between independent companies is based on this 100 year
17 old convention. Thus, this issue has a rational historical basis and is not, as Mr. Ducloo
18 describes it, an "essentially arbitrary decision." (Page 83, line 6). His so-called "arbitrary
19 decision" has, for good reasons that still exist today, governed the industry for over 100
20 years.

The second problem with Mr. Ducloo's testimony on this point it that, while he talks about VoIP and soft switches, of backbone fiber transporting IP packets around the world, the telephone numbers at issue in this case are numbers assigned on the PSTN that relate to specific circuit-based switches. The technologies that Mr. Ducloo discusses are on the Internet side of the POI and are irrelevant to this issue. PSTN numbers must relate to the geographic locations of the end user customers to maintain the current structure of the PSTN or call rating will break down entirely. Level 3, of course, can manage its own network in any manner it chooses. For example, Level 3 may use IP addresses, instead of telephone numbers, to exchange traffic within its own network. But when Level 3 connects to the PSTN, and assigns NANPA assigned telephone numbers to its' end user customers, or delivers VoIP calls to PSTN customers, Level 3 must comply with the same rules that apply to the hundreds of companies whose networks comprise the PSTN.

Q. CAN YOU PROVIDE AN EXAMPLE THAT ILLUSTRATES AN UNINTENDED CONSEQUENCE THAT COULD RESULT FROM ABANDONING CUSTOMER LOCATION AS A RELAVANT FACTOR IN ASSIGNING NUMBERS?

A. Yes. On page 81 of his testimony, Mr. Ducloo discusses the Local Exchange Routing Guide (LERG), and in particular, the routing and delivery of interexchange calls. The LERG is a database that identifies switches and numbers associated with those switches, based on the NPA NXX codes assigned by NANPA. Of course, the entire basis for whether to assess toll charges to a call relate to the specific physical locations at which traffic bound for particular switches may be delivered. To the extent that telephone numbers lose any geographic significance, then next door neighbors calling each other

could each have telephone numbers assigned to different LCAs, and parties on opposite ends of the state could in theory be in the same LCA (in both circumstances, of course, the concept of a LCA becomes meaningless). The point is that there are compelling policy reasons (totally aside from legal mandates, numbering rules, or technical capabilities) to maintain the system of rating calls based on physical location; telephone numbers must retain their geographic associations. Finally, if a LATA boundary becomes essentially an LCA boundary, LEC rates must change dramatically.

Q. MR. DUCLOO TESTIFIES THAT A SWITCH REALLY CANNOT KNOW THE GEOGRAPHIC LOCATION OF THE CUSTOMER, THAT THE SWITCH CANNOT STORE THE ADDRESSES ASSOCIATED WITH NUMBERS, AND THAT IN ORDER TO DEVELOP A PERIPHERAL DEVICE TO TRACK ADDRESSES IT WOULD BE EXPENSIVE. (PAGES 84-85). IS THE DEVELOPMENT OF SUCH A SYSTEM NECESSARY?

A. Absolutely not. This argument is a red herring. The solution to this issue is simple, which is to require that companies obtaining telephone numbers on the PSTN routinely assign the numbers to customers in the actual LCAs where the customer is located. If that were done, as it has been done for years, none of the tracking discussed by Mr. Ducloo of identifying the actual physical location of the virtual numbers would be necessary. The problem is not the existing system, the problem is companies like Level 3 that adopt a policy of assigning telephone numbers that have no relationship to the LCAs where the numbers are assigned.

1 Neither Qwest, nor Level 3, should build databases to further track geographic locations
2 beyond the LCA.

3 **Q. IN HIS TESTIMONY, MR. DUCLOO (PAGES 79) SUGGESTS THAT QWEST IS**
4 **TRYING TO "CHANGE" THE METHOD OF DETERMINING LOCAL AND**
5 **TOLL FROM TELEPHONE NUMBERS TO THE PHYSICAL LOCATIONS OF**
6 **THE PARTIES TO THE CALL (PAGE 79, LINES 9-11). HAS HE CORRECTLY**
7 **CHARACTERIZED THE MEANS BY WHICH LOCAL AND TOLL CALLS HAVE**
8 **BEEN DETERMINED IN ARIZONA?**

9 A. No. Mr. Ducloo's testimony is unsound on its face and is directly contrary to Arizona
10 statutes, Commission rules and approved tariffs, prior Commission decisions, federal
11 statutes, and FCC rules.

12 **Q. BEFORE ADDRESSING THOSE ISSUES, PLEASE ADDRESS THE ISSUE FROM**
13 **A COMMON SENSE PERSPECTIVE.**

14 A. From a purely common sense perspective, the Level 3 argument does not make sense and
15 ignores a fundamental building block of telecommunications in Arizona and in every other
16 state (i.e., the concept of the LCA). As I understand it, the Arizona Commission has
17 consistently taken an active role in the definition of LCAs based primarily on the existence
18 or non-existence of a community of interest among the residents and businesses of specific
19 geographical locations. A good example of this was the Commission's decision in Qwest's
20 (then U S WEST's) 1995 rate case, where the Commission ordered broad expansions of

1 EAS in many areas of the state.[6] The basis for the expansion decisions was the
2 Commission's conclusions that community of interest factors made such changes in the
3 public interest. As part of that order, the Commission adopted a Staff recommendation that
4 the Commission "consider calling volumes, *socio-economic linkages, contiguity,* and
5 public input to determine whether a community of interest exists."[7] Thus, over time, under
6 the Commission's practices, two areas that may have been separate LCAs can be combined
7 into a single LCA if the Commission concludes that a community of interest exists that
8 justifies classifying all calling within the geographical area as "local" and not as "long
9 distance." Thus, geography (e.g., contiguity) and the location of called and calling parties
10 in relation to each other have been concepts inherent in the establishment of LCAs in
11 Arizona.

12 The language used to distinguish among different types of calls likewise is focused on
13 geography. For example, the use by telephone companies and state commissions of the
14 word "local" is not an accident: the concept of calling *within* a certain specified
15 geographical area where the residents and businesses share a geographically-based
16 community of interest has been plainly distinguished from calls *between* geographical
17 areas, often hundreds of miles apart, where no such community of interest exists.
18 Historically, the Arizona Commission has treated local calls (i.e., where the parties to the
19 call are in the same geographical area) different from toll calls. State commissions have

---

[6] Opinion and Order, *In the Matter of the Application of U S WEST Communications, Inc., a Colorado Corporation, for a Hearing to Determine the Earnings of the Company, the Fair Value of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon and to Approve Rate Schedules Designed to Develop Such a Return*, Docket No. E-1051-93-183, Decision No. 58927, at 111-15 (ACC January 3, 1995).

[7] *Id.* at 115 (emphasis added).

recognized the community of interest within certain narrowly-defined rural areas or even within large metropolitan areas, and have therefore required that telephone companies provide service *within* these defined geographical areas on a flat-rated basis. These requirements have been based on the idea that calls to and from neighbors and local businesses within an area of community of interest should not be constrained by per-minute charges. Thus, prices for local service in those areas have traditionally been flat-rated so that no extra charges apply no matter how much time a customer spends on the telephone calling others located in the same LCA. To suggest, as Mr. Ducloos and Mr. Gates do, that the concept of local service and local calls is based purely on telephone numbers and not on geographical proximity is incorrect and historically inaccurate.

Q. DO THE RECOGNIZED DISTINCTIONS BETWEEN LOCAL AND TOLL HAVE PRICING DIFFERENCES AS WELL?

A. Consistent with the underlying logic of creating geographically-based local calling areas, state commissions and telephone companies have also historically based the pricing of toll calls on the relative lack of geographical proximity. Thus, telephone companies, regulatory Commissions, and the public refer to such calls as "long distance" calls. The phrase "long distance" (like the word "local") has a direct geographical component inherent in its name. Likewise, another synonym for long distance calls—interexchange calls—suggests that the calls originate in one exchange and terminate in another distant exchange. Given the lack of a general community of interest that justifies flat rate pricing, long distance calls have traditionally been priced on a per-minute basis.

Thus, a simple analysis of the language used to describe the two types of service ("local calls" versus "long distance calls") demonstrates the underlying error of Level 3's

testimony. The defining and distinguishing factor for local and toll calling has been geographical proximity (or the lack thereof).

Q. IS LEVEL 3'S PROPOSAL TO DEFINE LOCAL AND TOLL BASED ON TELEPHONE NUMBERS INSTEAD OF PHYSICAL LOCATION OF THE PARTIES TO THE CALL CONSISTENT WITH ARIZONA STATUTES?

A. No. The Arizona Commission, of course, is a constitutional agency under the Arizona Constitution. However, there are statutes that also apply to the Commission that are relevant to the issues in this case. For example, Arizona Code § 4-329 (a statute that long preceded the 1996 Act) grants the Commission authority to require that two telephone corporations connect to each other. One exception to that power is "except where the purpose of the connection is primarily to secure transmission of *local messages or conversations between points within the same city, or town.*" The importance of this section to this issue is not that Qwest could refuse to interconnect for local messages (that issue having been resolved by the 1996 Act), but the fact that Arizona statutes define local messages as taking place "between points within the same city, or town." In other words, this statute defines local calling in terms of the geographical proximity of the parties to the call. Arizona Code § 40-282(C)(2)(a) & (b) contemplate separate certification for "local exchange" carriers and "interexchange" carriers.

Q. IS QWEST'S CHARACTERIZATION OF CALLS BASED ON LOCATION CONSISTENT WITH COMMISSION RULES?

A. Yes. The Commission's "Competitive Telecommunications Services" rule ties local exchange traffic to traffic *within* exchange areas. The rule defines "Local Exchange

Service" as "[t]he telecommunications service that provides a *local dial tone*, access line, and *local usage within an exchange or local calling area*." Arizona Administrative Code ("AAC") § R14-2-1102(7) (Emphasis added). On the other hand, the Commission's "Telephone Utilities" rule defines "toll service" as service "*between stations in different exchange areas* for which a long distance charge is applicable." *Id.* § R14-2-501(23) (Emphasis added). Finally, the Commission's "Telecommunications Interconnection and Unbundling" rule states: "The incumbent LEC's *local calling areas and existing EAS boundaries* will be utilized for the purpose of classifying traffic as local, EAS, or toll for purposes of *intercompany compensation*." *Id.* § R1421305(A) (Emphasis added). Read together, these provisions could not be more clear in requiring that local and toll traffic be defined in terms of the geographical location of the parties to the call. In fact, section R1421305(A) requires that all carriers, including Level 3, comply with local calling areas and EAS "boundaries" (a physical, geographical concept) for purposes on intercompany compensation. Consistent with these rules, Qwest's proposed language treats traffic as local traffic only if it originates and terminates within the same exchange area. While these rules retain a clear link to geography, none of the Commission's rules purport to categorize calls between local and interexchange based on the NPA/NXX assigned to a particular call.

Q. ARE QWEST'S ARIZONA TARIFFS CONSISTENT WITH ARIZONA STATUTES AND COMMISSION RULES?

A. Yes. Section 2.1 of Qwest's Exchange and Network Services Price Cap Tariff defines an "exchange" as a "geographical unit, established by the Company, for the administration of telecommunication services in a specified area." This tariff section defines "exchange service" as "[t]he service of furnishing equipment and facilities for telephone communications *within* a designated area." (Emphasis added). In turn, "exchange service area" is defined as "[t]he *territory* served by an exchange." This same section defines "local exchange service" as "[t]he furnishing of telecommunications services to the Company's customers *within an exchange for local calling*. This service also provides access to and from the telecommunication network for long distance calling." Further, this section defines "local service area or extended local service area" as "[t]hat area throughout which an exchange service customer, at a given rate, may make calls without the payment of a toll charge. A local service area may be made up of one or more exchange areas."

Section 5.1 of Qwest's tariff, "Exchange Areas," states that "[t]he Company develops exchange service areas to establish service *within a defined geographical area.*" (Emphasis added) Finally, Section 5.2 states that the rates and charges quoted for "local exchange service" . . . "entitle the customer to *local calls*, without toll charges, *to all local exchange access lines connected to a CO of the exchange*, or to all exchange access lines served by COs of the extended local service area where comprised of more than one exchange." (Emphasis added).

As with Arizona statutes and rules, there is nothing at all to suggest that the toll/local distinction is governed by the telephone numbers assigned; rather, every statute, rule, and

tariff define local and interexchange calling strictly in terms of the geographical location of the parties to the call.

Q. IS QWEST'S POSITION CONSISTENT WITH A PREVIOUS COMMISSION DECISION?

A. Yes. As I noted in my direct testimony, there is one particularly important decision, the Commission's 2004 decision in an arbitration between Qwest and AT&T ("*AT&T Arbitration Order*").[8] In that case, AT&T proposed a definition of that would have defined "EAS/Local Traffic" by "the calling and called NPA/NXXs," just as Level proposes in this docket. Among the arguments advanced by AT&T are the primary arguments asserted by Mr. DuCloo and Mr. Gates: "that today Qwest employs the NPA-NXX to rate calls as local or toll, not the customer's physical location, an by its FX service Qwest provides local calling to its own customers who are physically located outside the geographically defined local calling areas."[9] The Commission rejected AT&T's arguments:

> We find that Qwest's proposed definition of "Exchange Service" *comports with existing law and rules, and should be adopted.* AT&T's proposed definition represents a departure from the establishment of local calling areas and may have unintended affect beyond the issues discussed herein and be subject to abuse. Commission Staff did not participate in this arbitration proceeding. We do not believe that it

---

[8] Opinion and Order, *In the Matter of the Petition of AT&T Communications of the Mountain States, Inc. and TCG Phoienix, for Arbitration with Qwest Corporation, Inc. Purusant to 47 U.S.C. Section 252(b),* Docket Nos. T-02428A-03-0553 and T-01051B-03-0553 (Ariz. Corp. Comm'n, April 6, 2004).

[9] *Id.* at 11.

> would be good public policy to alter long-standing rules or practice without broader industry and public participation.[10]

None of the existing laws and rules upon which the Commission relied to reject AT&T's arguments have changed in the period since the *AT&T Arbitration Order* was issued. Nor is there a diminished need to address issues of such broad-ranging importance in a broader forum where all consequences can be properly considered.

Q. IS QWEST'S LANGUAGE CONSISTENT WITH THE DEFINITIONS IN THE COMMUNICATIONS ACT OF 1934, AS AMENDED BY THE 1996 ACT?

A. Yes. The Act defines "exchange access," "telephone exchange service," and "telephone toll service" as follows:

> The term "exchange access" means the offering of access to *telephone exchange services* or facilities for the purpose of the origination or termination of telephone toll services.[11]

* * *

> The term "telephone exchange service" means (A) service *within a telephone exchange,* or within a connected system of telephone exchanges *within the same exchange area* operated to furnish to subscribers intercommunicating service of the character *ordinarily furnished by a single exchange,* or (B) *comparable service* provided through a system of switches, transmission equipment, or other facilities (or a combination thereof) by which a subscriber can originate and terminate a telecommunications service.[12]

* * *

---

[10] *Id.* at 13.

[11] 47 U.S.C. § 153(16) (emphasis added).

[12] 47 U.S.C. § 153(47) (emphasis added).

> The term "telephone toll service" means telephone service *between stations in different exchange areas* for which there is made *a separate charge* not included in contracts with subscribers for exchange services.[13]

Under the Act, therefore, telephone exchange service is a service provided to subscribers that enables a particular subscriber to originate and terminate calls within a single exchange or within an area ordinarily served by a single exchange, or comparable service. Telephone toll service, in contrast, applies when a customer places a call to end users located beyond the calling area covered by Qwest's basic local exchange service tariff. Such calls are normally subject to additional charges designed to compensate the toll provider or exchange access providers for carrying calls over what could be considerable distances.[14]

Q. IS QWEST'S PROPOSED LANGUAGE CONSISTENT WITH FCC RULES?

A. Yes. The FCC recognizes and has preserved the state's role in defining LCAs. For example, in the *Local Competition Order*, the FCC held that except for traffic to or from a CMRS network, "state commissions have the authority to determine what geographic areas should be considered 'local areas' for the purpose of applying reciprocal compensation obligations under section 251(b)(5), consistent with the state commissions' historical practice of defining local service areas for wireline LECs. Traffic originating or terminating outside of the applicable local area would be subject to interstate and intrastate

---

[13] 47 U.S.C. § 153(48) (emphasis added).

[14] Of course, as noted in my prior testimony, and in Qwest's response to Level 3's Petition, Level 3 wants to engraft the federal Act's "telephone toll service" definition into the interconnection agreement, then claim that because Qwest does not impose "separate charges" for such traffic it cannot, by definition, be toll. This, of course, ignores the fact that, as a CLEC, Level 3 has no obligation to tell Qwest in advance where calls directed to it will terminate, thus rendering it impossible for Qwest to bill the calls as toll charges.

1 access charges."[15] The FCC further recognized that as a legal matter, transport and
2 termination of local traffic is different from exchange access service. The FCC stated that
3 "[t]he Act preserves the legal distinctions between charges for transport and termination of
4 local traffic and interstate and intrastate charges for terminating long-distance traffic."[16]
5
6 **Q. LEVEL 3 CLAIMS THAT THE FCC'S *ISP REMAND ORDER* CHANGED THIS**
7 **BODY OF LAW. DO YOU AGREE?**

8 A. No. The *ISP Remand Order* made no change in this regime. The *ISP Remand Order*
9 addressed the proper rate and treatment of traffic bound for ISPs located in the same local
10 calling area as the calling party. The FCC did not convert intraLATA toll traffic into traffic
11 subject to reciprocal compensation, as Level 3 contends. Had the FCC intended to take
12 away the states' ability to define local calling areas and what constitutes an intraLATA toll
13 call, it would have done so explicitly. In fact, the FCC recognized that Section 251(b)(5)
14 does not apply to intraLATA toll calls.[17] Thus, this Commission's definitions of LCAs and
15 local exchange service continue to govern the proper definition for the parties' agreement.
16
17 **Q. AS PREVIOUSLY DISCUSSED, THE LEVEL 3 WITNESSES CLAIM THAT THE**
18 **MEANS OF DETERMINING LOCAL CALLS HAS ALWAYS BEEN BASED, NOT**
19 **ON GEOGRAPHY, BUT ON THE TELEPHONE NUMBERS ASSIGNED TO THE**

---

[15] *Local Competition Order* ¶ 1035 (emphasis added).

[16] *Id.* ¶ 1033.

CALLED AND CALLING PARTIES. PLEASE COMMENT ON THEIR TESTIMONY.

A. The foregoing discussion of Arizona statutes, rules, and tariffs, as well as federal statutes and FCC rules demonstrates that Level 3's contention is false.

Their testimony is a typical example of getting the cause and effect relationship between two concepts backwards. The Level 3 witnesses suggest that, because telephone numbers have been the means of rating calls as local or toll, this means that telephone companies and state commissions had made a conscious conclusion that physical location is not relevant to call classification and that assigned telephone numbers are the only criterion. In other words, they suggest that community of interest, distance, and the geographical location of called and calling parties were never relevant factors and that the only relevant factor was the relationship between the assigned telephone numbers.

As demonstrated above, this argument has no basis in law or fact in Arizona. Geographical locations of the parties to the call have always been the prime criterion under both Arizona and federal law.

Q. PLEASE PROVIDE EXAMPLES TO ILLUSTRATE THE FOREGOING POINT.

A. It is true that historically the means by which telephone companies have been able to make the determination of the geographical location of customers has been the telephone number

---

[17] *ISP Remand Order* at n.66 ("In this regard, we again conclude that it is reasonable to interpret section 251(b)(5) to exclude traffic subject to parallel intrastate access regulations, because "it would be incongruous to conclude that Congress was concerned about the effects of potential disruption to the interstate access charge system, but had no such concerns about the effects on analogous intrastate mechanisms") (citing *Local Competition Order*).

assigned to them. For example, assume I am an Arizona customer of Qwest and have been assigned the telephone number 602-630-XXXX. Customers with a 602 area code and an NXX of 630 are associated with the Phoenix LCA, which means that I am physically located in the Phoenix LCA,[18] can call other residents of Phoenix (and indeed the entire Phoenix LCA) on a flat rated basis. If I decide to make a call to a friend in Flagstaff (who has a telephone number associated with the Flagstaff exchange), I would first dial 1 and then the Flagstaff number. Qwest's equipment would recognize this as an interexchange call, route it to my toll carrier, and deliver to the call to that carrier. At the Flagstaff end, Qwest would terminate the call (if the Flagstaff customer received local service from Qwest) or it would be terminated by the local provider for that customer.

In this example, the geographical location of the two parties to the call was disclosed by their telephone numbers, but that does not mean that Qwest or the Commission ever concluded that telephone numbers were the end of the analysis—the telephone numbers and their geographical association with specific exchanges were simply the means to the end of rating calls based on the geographical location of the parties to the call. For decades, this system worked very well because telephone numbers was a reliable and consistent means of determining the geographical location the parties to a call. Thus, the Level 3 witnesses have it backwards. For purposes of distinguishing local from toll calls, the end purpose was to determine whether calls were within or between LCAs, and not (as Level 3 contends) to determine whether the telephone numbers of the parties to the call were assigned to the same LCA.

---

[18] FX service, of course, is one exception; however, with that service, the customer pays the full private line rate to transport the traffic to a distant LCA.

Q. GIVEN THE HISTORY AND EXAMPLES YOU HAVE DESCRIBED, WHAT HAS CAUSED THIS TO BECOME AN ISSUE NOW?

A. There are two significant factors: (1) the ability of CLECs like Level 3 to obtain local telephone numbers from NANPA, something end users like ISPs are unable to do, and (2) the regulatory requirement that CLECs are able to interconnect, not in each LCA, but at a single POI ("SPOI") within each LATA. Thus, a company like Level 3 is able to obtain local telephone numbers in LCAs throughout a LATA, but instead of assigning them to customers that are physically located in the exchange associated with the telephone numbers, they assign them to customers actually physically located elsewhere, something CLECs have not been doing until recently.

To illustrate, let me contrast two methods of operation by CLECs. Many CLECs, unlike Level 3, actually provide local exchange service to customers in the exchanges in which they obtain telephone numbers. Thus, for example, while such a CLEC may have a SPOI in Phoenix, it may serve local exchange customers in Flagstaff. In that case, the CLEC will obtain local Flagstaff numbers and assign them to real customers located in Flagstaff. Thus, a call from a Qwest customer located in Flagstaff to a CLEC Flagstaff customer will be routed to the CLEC POI in Phoenix and the CLEC will then route it back to its customer in Flagstaff. In that case, consistent with the traditional association of telephone numbers with geographical location, the call is truly local in nature because the parties to the call are physically located within the same LCA.

The second example—which describes Level 3's business—illustrates the problem. In Level 3's case, because it is a CLEC, it may also obtain local telephone numbers in Flagstaff, but Level 3 does not and never has purported to provide local exchange service to end user customers in Flagstaff. Level 3 candidly admits that it is in the business of serving ISPs. Thus, Level 3 will obtain local numbers associated with the Flagstaff exchange, but will assign them to ISPs whose modems, routers, and servers are located in Phoenix or perhaps in another state altogether. Those ISPs will market their dial-up services to Flagstaff customers and will provide the local numbers provided to them by Level 3 as the local access number for the end user customers to access the ISP, and thus the Internet. Other than the telephone numbers, there is nothing remotely "local" about the call to the ISP. It originates in Flagstaff, but it is answered by the ISP's modems in Phoenix or elsewhere; from there, the call is then sent to websites throughout the country or even the world.

Level 3's claims are: (1) despite the fact that such calls are interexchange in nature (as defined the physical end points of the call), it really is "local" because the phone numbers are associated with the call appear to be local to each other and (2) such treatment is sanctioned by the historical means by which Qwest has determined whether a call is local or long distance.

The error in Level 3's logic is its contention that telephone companies and state Commissions really intended that these calls be treated as local because the telephone companies' traditional means of categorizing a call was based on the telephone numbers. This argument stands logic on its head. In fact, what has happened is that, by virtue of rights given to it as a CLEC, Level 3 is able to obtain what appear to be local numbers for

1 the purpose of making interexchange calls. Qwest certainly did not intend that CLECs use
2 "local telephone numbers" in a way that essentially "fools" the system into believing they
3 are really local calls. Furthermore, Arizona statutes, Commission rules, and Commission
4 decisions certainly disclose no intent by the Commission to abandon the concept of
5 geography and the physical end points for the proper classification of calls.
6
7 **Q. HAS A FEDERAL COURT IN QWEST'S TERRITORY RECENTLY ADDRESSED**
8 **THIS ISSUE?**
9 A. Yes. The VNXX issue with regard to ISP-bound calls was recently addressed by a federal
10 district court in Oregon, which ruled that, under the interconnection agreement at issue,
11 Qwest was not responsible to pay a CLEC reciprocal compensation for ISP traffic that did
12 not physically originate and terminate in the same LCA. In that case, *Qwest Corporation v.*
13 *Universal Telecom,*[19] the CLEC ("Universal") adopted a business plan essentially identical
14 to Level 3. It served only ISPs and, like Level 3, it obtained local numbers that it gave to
15 its ISP customers for local access, but which were actually routed to a Universal POI in
16 another part of the state. The court noted that "VNXX traffic involves a call that is
17 originated in one local calling area "LCA") and is terminated in a different LCA without
18 incurring the toll charges which would normally apply. The essence of VNXX traffic is
19 that a LEC who does not have a physical presence in a particular calling area *may appear*
20 *to be local.* The LEC gains this local appearance by holding a block of local numbers
21 which the end user, who is located in that LCA, may call. Upon making what *appears to*

be a local call, the call is relayed over the lines of the local LEC [Qwest], passed of to the distant LEC [Universal], and terminated by that distant LEC."[20] Applying the terms of the interconnection agreement, which required that calls be categorized by Qwest's local tariffs, which defined local service as service "furnished between customer's premises located within the same local calling area," the court found that the calls were not local in nature and that therefore Qwest did not owe reciprocal compensation on non-local ISP traffic.[21]

The Arizona statutes and rules, like the Oregon Qwest tariffs, define local and toll calling based on geographical proximity of the parties to the call (i.e., whether they are physically located in the same LCA); thus, the language of the interconnection agreement should reflect those requirements. Because Qwest's proposed language is consistent with the requirements of Arizona and federal law, it should be adopted.

Q. MR. GATES STATES THAT BOTH CLECS AND ILECS PROVIDE LOCAL NUMBERS TO ISPS. HE THEN SAYS THAT THE VNXX SERVICE OF THE CLEC SERVICE IS IDENTICAL TO FX SERVICE OFFERED BY QWEST, "AT LEAST FROM AN END USER CUSTOMER PERSPECTIVE." (PAGE 32) DO

---

[19] 2004 WL 2958421 (D. Ore. 2004).

[20] *Id.* at *9 (emphasis added).

[21] *Id.* at *9-*11.

YOU AGREE WITH HIS CLAIM?

A. No. In fact, FX service offered by Qwest and VNXX service offered by Level 3 are very different. This is true from the perspective of the carriers which Mr. Gates appears to implicitly acknowledge and from the end user customers' perspectives as well. From the end user customers' perspective, they are totally different. If a customer purchases FX service from Qwest, the customer must actually purchase a connection in the geographic LCA associated with the number (for which it pays the appropriate local exchange rate), and must also pay for private line transport. When Qwest provides services to ISPs, it requires the ISP to pick up the calls in the LCA where they want a telephone number by purchasing a local connection in that LCA, and then pay for hauling it to the distant location through a dedicated private line to their premises. The party that wants the call transported to the distant exchange pays the transport. With Level 3's VNXX product, however, there is no need for Level 3 to ask the ISP to pay for any transport from a distant exchange. This is because, by single point of interconnection and number assignments, Level 3 represents to Qwest that the call is a local call that Qwest should deliver to Level 3's Phoenix POP for free. Neither Level 3, nor the ISP, nor the end user customer, is required to pay Qwest for gathering and transporting the traffic. Instead, because Level uses local numbers, such calls are routed on local single-point-per LATA interconnection trunks as if the calls were local calls terminating to a customer located in the originating LCA. In fact, not only does Level 3 want the transport for free, Level 3 proposes charging Qwest local termination once the call arrives at its switch as if it were a local call. Most Level 3 VNXX traffic today is ISP calling. Despite Level 3's request in its Petition for $.0007/minute, those calls are currently rated at $.00097/minute under Arizona rules. But if the VNXX issue is expanded to terminating calls from VoIP providers or other

originating traffic the issue of seeking local termination of VNXX calls remains and must be resolved in the contract language. Thus Qwest's language in 7.3.6.3 stating that reciprocal compensation will not be paid on VNXX traffic should be adopted.

Q. ON EXHIBITS RRD #10, #11, AND #15, MR. DUCLOO DEPICTS LEVEL 3'S VIEW OF QWEST FX SERVICE AND LEVEL 3'S VNXX SERVICE. (SEE ALSO MR. GATES TESTIMONY AT PAGE 33). ARE THESE EXHIBITS ACCURATE?

A. No. Exhibits RRD #10 and RRD #11 inaccurately depict a Qwest FX call. These exhibits show the call path using common PSTN trunk groups and being switched by multiple end offices and tandem offices, in essence using the toll network. In fact, that is completely wrong. Qwest FX is a simple configuration where the customer purchases an actual connection in the LCA where the number is assigned like other end users in that local calling area. It is then transported from that LCA, not over common trunks and switches, but over what is essentially a private line-rated long loop. The FX customer is connected from the actual LCA where the number was assigned directly to the distant customer premises in the "foreign" exchange over a tariffed private line service at full retail rates. Level 3's RRD #10 depiction does not reflect that configuration. The routing on that exhibit is the routing that would apply to a typical toll call using the trunks connecting the two switches following the same path as a toll call.

This point is illustrated by Exhibit RRD #15, Mr. Ducloo's diagram of a Level 3 VNXX call. From this exhibit, it is clear that, unlike Qwest's FX service, Level 3 does not pick up the call in the originating LCA, does not take it off the common trunks of the PSTN network, and does not provide the private line circuit carrying the call to the customer

premises. Rather than the Level 3 VNXX customer paying for transport to its distant premises, Level 3 puts the call on the LIS trunks, whose purpose is to deliver local calls from local customers to the Level 3 switch. And, while the diagram suggests that Level 3 pays Qwest TELRIC rates to transport this call to the Level 3 POP, Level 3's position in its Petition is that Qwest is financially responsible for *all costs* on its side of the POI, and that neither Level 3 nor its customers should pay anything for the delivery. Setting that point aside, (Mr. Easton addresses this in his testimony), the point that these exhibits make clear is that the Qwest FX customer bears the full retail cost of transporting the call to the distant location on its private network (i.e., the private line circuit that it leases from Qwest). In Level 3's model, Level 3 seeks state-wide free transport, and wants the call treated as local, including billing local termination charges, without any nexus whatsoever to the originating LCA.

Q. WHAT DO YOU MEAN BY NO NEXUS TO THE LCA?

A. Let me give a real example. According to the LERG, Level 3 has requested and obtained from NANPA 10,000 telephone numbers in area code 928 for NXX of 415. These numbers are associated with the LCA for Wickenburg, Arizona, whose population is approximately 5000 people. Based on Level 3's own descriptions of its business model, it is highly unlikely that Level 3 serves any actual customers who live in Wickenburg. I doubt if a Level 3 employee has ever been in Wickenburg, at least on a work related matter. Level 3's sole purpose in obtaining those numbers is to assign Wickenburg numbers to an ISP customer (such as Earthlink or MSN) actually located in Phoenix or even in another state. Level 3 claims that the Qwest Wickenburg customer has made a local call if they call

1 an ISP when it actually is delivered to the Phoenix POP of Level 3 and then delivered to
2 Level 3's Phoenix ISP customer. Furthermore, Level 3 not only wants Qwest to deliver the
3 traffic to the POP for free, Level 3 also intends to bill reciprocal compensation to Qwest for
4 terminating that local call to their local "Wickenburg" ISP customer. If Level can pull that
5 off, it has a bullet-proof business plan. Qwest gathers and delivers traffic to it for free from
6 throughout Arizona, Level charges the ISPs for that service and then, Level 3 wants Qwest
7 to actually pay it local call termination for the privilege of doing all of these things for
8 Level 3. Beyond charging Qwest to deliver them traffic, as a CLEC certified to provide
9 local service, Level 3 has no relationship with any customer in Wickenburg and no nexus
10 to the Wickenburg LCA.
11

12 **Q. IS THE EXISTENCE OF ILEC FX SERVICE A REASON TO ABANDON THE**
13 **EXISTING MEANS OF RATING CALLS?**

14 A. No. I have already discussed why FX is significantly different that the VNXX arrangement
15 that Level 3 seeks to sanction through the ICA. Level 3 is taking the exception and turning
16 it into the numbering convention. NANPA expects that every company that elects to
17 interconnect with and become part of the network that comprises the PSTN assigns
18 numbers associated with specific geographic locations. There is one exception, specifically
19 permitted by NANPA, which is FX. And NANPA recognizes it not as the general rule but
20 as a limited exception that is regulated by states and recovers the transport through tariffed
21 private line rates. In Arizona, FX lines represent less than one tenth of one percent of the
22 total number of access lines assigned in Arizona. The other 99 and nine tenths percent
23 follow the established structure. Level 3 seeks to use FX (which is actually very different

1 from VNXX), and which by any measure is a small exception to a general rule, as the
2 justification to establish an entire network based on assigning virtually all telephone
3 numbers to customers located outside the LCA associated with the assigned numbers.
4 Thus, the vast majority of its telephone numbers would bear no relationship to their actual
5 physical location of the customer to whom they are assigned. Other than those Level 3 ISP
6 customers who happen to be located within the same LCA as the Level POI, 100% of Level
7 3's traffic would bear no relation to the LCAs with which its numbers are associated.
8 Level 3 does not deny that is has no customers physically located in those communities.
9 Level 3 is simply using the assigned telephone numbers to disguise calls that would
10 otherwise be toll calls, a fact recognized by the Oregon federal court in the *Universal* case,
11 which noted that Universal's VNXX arrangement allowed "the person making the call [to]
12 be billed at the local rate for a call that was *really long distance*."[22]

13 **Q. MR. GATES ALSO REFERS TO A SERVICE OFFERED BY QCC KNOWN AS**
14 **"WHOLESALE DIAL" SERVICE (PAGE 55). IS THAT RELEVANT TO THE**
15 **VNXX ISSUES IN THIS CASE?**

16 A. No. Again Level 3 first inaccurately describes the Qwest product, and then says Level 3
17 does the same thing. Mr. Gates states that Wholesale Dial provides many of the same
18 "benefits" as Level 3's service. Wholesale Dial is a product that Qwest's unregulated
19 affiliate company QCC offers to ISPs. QCC is able to offer the product in Qwest's territory
20 because it purchases tariffed services from Qwest (the ILEC) and then packages those

---

[22] 2004 WL 2958421, at * 9 (emphasis added).

1 tariffed services for ISPs. In particular, QCC purchases tariffed Primary Rate ISDN
2 services. This means that Wholesale Dial customers pay tariffed private line transport rates
3 to haul calls from the LCA where the dial tone is provided to the location of the ISP. The
4 calls are handed off within the LCA where the local service is purchased. In other words, it
5 bears no resemblance to VNXX.

6 **Q. WHAT IS WHOLESALE DIAL?**

7 A. QCC, through its Wholesale Dial product offering, is simply aggregating traffic and
8 providing a service as a bundled product to ISPs. Another way of describing this is that a
9 single ISP can buy PRI out of the tariffs or catalogs today as any other end user customer
10 can. But, if a single ISP does not have enough customers or volume to warrant such a
11 purchase, then a company like QCC (or any other carrier, including Level 3) can buy the
12 same tariffed services and create a product that can aggregate traffic for multiple ISPs, just
13 like QCC's Wholesale Dial, and market it to ISPs. The point is that Wholesale Dial is a
14 bundling of tariffed products and is not doing what Level 3 is doing, as Mr. Gates suggests.
15 It is simply built upon existing tariffed products and is not what Level 3 is doing with
16 VNXX. Wholesale Dial bears no resemblance to VNXX, and QCC is not a CLEC in
17 Phoenix assigning VNXX codes to itself so that it may have all traffic in the state delivered
18 to it for free. This is another red herring that should be ignored in addressing the real issue.

19 **Q. LEVEL 3 SEEMS TO IMPLY THAT ONEFLEX™, OFFERED BY QWEST'S**
20 **INTERNET COMPANY, IS ALSO A VNXX TYPE PRODUCT. DO YOU AGREE?**

A. No. Level 3's only argument for ignoring numbering convention is to claim everybody does it. I have already shown that is not the case. Level 3 inaccurately describes a Qwest product and then says "they do it, so we can do it". I have attached Qwest's Response to Level 3's Request No. 64S1, labeled as Exhibit LBB-2, in which Qwest states that Qwest Communications Corporation ("QCC") does offer OneFlex™ with virtual numbers. (See Gates Exhibit TJG-7) These numbers honor the LCA guidelines and calls to or from these numbers from outside the LCA where the VoIP POP is located are not local calls, as Level 3 advocates. In terms of the ESP exemption, all traffic is measured to and from the VoIP POP, just as Qwest's language requires of Level 3, and all calls comply with the exemption. No VNXX calls are permitted with OneFlex™ because calls are exchanged between the POP and the caller within the same LCA. If Level 3 assigns a Phoenix number to its ESP customer in Phoenix then calls from Qwest Phoenix customers will be delivered to it as local. OneFlex™ does not, nor should Level 3 be permitted to assign a Flagstaff VNXX number to a Phoenix ESP customer.

Q. IN HIS TESTIMONY, MR. GATES STATES THAT "ISP-BOUND TRAFFIC AND VIRTUAL NXX ISSUE ARE VERY MUCH INTERTWINED." (PAGE 31, LINE 14) DO YOU AGREE?

A. Yes, but that is only because certain CLECs, including Level 3, choose to intertwine them. It is my understanding that currently all of Level 3's assigned VNXX numbers are assigned to ISPs. That does not necessarily mean they must be intertwined. As I stated in my direct testimony, a VNXX call is a VNXX call whether it is to an ISP, an airline, or a hardware

store. VNXX can be analyzed and evaluated in its own right and the fact that an ISP has been assigned the number is of no particular impact on the analysis, except from the perspective that the longer holding times associated with dial up Internet calls adds greater cost to Qwest than a call to an airline or hardware store would and the Arizona Commission has excluded ISP calls from reciprocal compensation. From a legal and policy perspective, the issues are the same. A call originating in Flagstaff and terminating to an end user with a Flagstaff number in Phoenix is a VNXX call, and the business of the called party does not change that fact.

Q. MR. GATES STATES ON PAGE 34 OF HIS TESTIMONY, THAT THE LOCATION OF THE ISP EQUIPMENT HAS NO IMPACT ON THE PROPER JURISDICTION OF THE CALL. IS HE CORRECT?

A. No. Remember, the ISP is the customer. To say, as Mr. Gates does, that the location of the customer receiving the call has no impact on the jurisdictional categorization of the call highlights the extreme position that Level 3 is taking in this docket. The local/toll distinction, the intrastate/interstate distinction, and the end user customer/carrier distinction, among other things, are all premised on a historical approach that treats the location of customers as one of the paramount factors. The regulatory structure related to the PSTN is based on these kinds of facts, as is the intercarrier financing structure. While the Level 3 witnesses attempt to camouflage Level 3's approach in rhetoric, the fact of the matter is that its intent is simply to be able to use the PSTN for free (and, incidentally, receive reciprocal compensation at the same time).

Q. BEGINNING ON PAGE 37 OF HIS TESTIMONY MR. GATES LISTS WHAT HE CONSIDERS NEGATIVE CONSEQUENCES OF TREATING VNXX CALLS AS ANYTHING OTHER THAN LOCAL CALLS. PLEASE ADDRESS THE CONSEQUENCES HE DESCRIBES.

A. First let me state that treating a call according to its actual classification is not a negative consequence. If that were so, then every toll carrier could claim that treating its toll calls as toll was a negative consequence as compared to the treatment accorded local calls. Treating a call according to its actual jurisdiction is not a value judgment; it is a jurisdictional assignment that is neither negative nor positive. It is true that different tariffed charges apply to different classifications. Level 3's costs will undoubtedly increase if it cannot treat a call from Flagstaff to Phoenix as a free local call. But that is not the issue. The real question for the Commission is what is the proper treatment and classification of calls under existing compensation methods.

It is also true that ISPs' costs will likely increase if a call from Flagstaff to Phoenix is no longer called a local call. But ISPs were paying someone to transport calls from Flagstaff to Phoenix before Level 3 became certified. They bought a local connection in a distant town and then bought transport back to their equipment from Qwest, an IXC, or a Competitive Access Provider ("CAP") that would sell transport, or the ISP used its own fiber network. It was only when Level 3 began leveraging its status as a CLEC, and obtaining local numbers throughout the state and claiming these were local calls, that ISPs began getting free transport. Any expense savings or efficiencies that exist for ISPs, exist

only because Level 3 has inappropriately classified the calls. Whether ISPs would need to raise rates if forced to buy transport from Level 3, Qwest, an IXC, or a CAP from these distant towns, as Mr. Gates claims, depends on their margins (which are unknown to Qwest). Unlike Mr. Gates, however, if that were to happen it is not an unfair negative impact, but is simply requiring the cost causer, the ISP, to pay the costs rather than imposing those costs on others.

Q. MR. GATES CLAIMS THAT QWEST'S PROPOSAL IMPROPERLY BENEFITS ITS OWN AFFILIATE AND REDUCES COMPETITION FOR ISP DIAL-UP SERVICES. (PAGE 38, LINES 1-3) IS THAT TRUE?

A. No. Once again, the exact opposite is true. As I explained in my direct testimony, Qwest requires that its ISP customers pay to transport from distant LCAs to their Internet equipment from private line tariffs. Furthermore, Qwest's offerings require the ISP to actually pick up the traffic in the LCA that the local number is associated with. The reality, however, is that there is no significant competition for ISP dial-up today because, given a choice, an ISP prefers free transport from companies like Level 3, rather than paying for the costs of transporting these calls. It doesn't take an extremely sophisticated analyst to figure out that free (even though unfair to Qwest and other customers) is more beneficial than actually paying for service received.

Q. ON PAGE 38, LINE 8 OF HIS TESTIMONY, MR. GATES ASKS THE QUESTION "ARE THERE ANY ADDITIONAL NEGATIVE CONSEQUENCES?" WHAT ARE THEY AND WHAT IS YOUR RESPONSE?

A. Mr. Gates' fundamental argument is that Level 3 has built a multi-billion dollar, highly efficient network and that the efficiencies of this network are of no use if Level 3 is burdened by the arbitrary and unwarranted requirements of interconnection rules, and the local/toll distinction mandated by state and federal law when they use the PSTN. This, of course, ignores the significant capital dollars that Qwest has spent in Arizona alone to build a network to places like Wickenburg and Flagstaff. It is not unreasonable for Qwest to request compensation for the use of its network. It also ignores the billions spent by IXCs and wireless carriers, all of whom play by the same rules that Level 3 is asking the Commission to exempt Level 3 from. Mr. Gates also states that Level 3's network can serve large regions of the country on an integrated basis. "It is indifferent to ILEC legacy central office boundaries." (Page 38, lines 15-16) Local boundaries are not ILEC local boundaries, but boundaries established for very good reasons by the Arizona Commission. And like it or not, Level 3, if it goes beyond those local boundaries and into the toll business, cannot be indifferent to them just because it happens to have build an IP-based network.

Q. MR. DUCLOO MAKES THE POINT THAT QWEST'S TRUNKNG TO LEVEL 3 IS THE SAME NO MATTER WHERE THE END USER CUSTOMER IS LOCATED. (PAGE 88) MR. GATES MAKES A SIMILAR POINT (PAGE 35). IS THIS TRUE?

A. Yes, they made similar points when discussing why Level 3's VoIP calls should get special treatment. But Mr. Ducloo misses the critical point. Consistent with regulatory

requirements, Qwest's ICAs permit CLECs to serve end user customers in various local calling areas in the LATA from a single switch, in an arrangement known as single point of interconnection ("SPOI") or single point of presence ("SPOP"). Assume that Level 3 places its POP for the Phoenix LATA in Phoenix. Under SPOP, if a Qwest customer in Flagstaff calls a Phoenix number of a customer served by Level 3 and located in Phoenix, Qwest will deliver the call to the Level 3 POP in Phoenix. If a Flagstaff Qwest customer calls the Flagstaff number of a customer served by Level 3 and who is physically located in Flagstaff (which, of course, is purely hypothetical since Level 3 provides no local exchange service), Qwest will deliver the call to the Level 3 switch in Phoenix. Level 3 then has the responsibility to deliver the call back to its Flagstaff customer. In both instances, Qwest must transport the call to the Level 3 POP in Phoenix. The cost to Qwest is the same in both situations, but the point is that the regulatory treatment of the two calls is very different. A Flagstaff to Phoenix call is a toll call and access charges apply to the IXC responsible for the traffic. However, the Flagstaff end user customer to Flagstaff end user customer call is a local call, and is treated differently under Arizona regulatory rules and interconnection agreements. Level 3 wants to ignore these rules, and argue that since both calls were delivered to the same POP they are the same kind of call. The issue here is not call routing on one side of the POI—the issue here is the proper categorization of the call and the application of the appropriate intercarrier compensation mechanism.

Q. DOES YOUR PREVIOUS RESPONSE REFLECT LEVEL 3'S ACTUAL METHOD OF OPERATION?

A. No. In the previous question, I used the example of a Level 3 Flagstaff customer whose telephone number accurately reflected their physical location. In reality, however, Level 3

is assigning local numbers from LCAs throughout Arizona to customers with no physical presence in the LCA. These all appear as local calls because the switch operates on the premise that Level 3 has followed industry rules and actually have customers located in those towns; nothing could be further from the truth. The calls at issue in this case are, for example, where a Qwest customer in Flagstaff calls a Flagstaff number of an ISP customer served by Level 3, but the customer is actually located in Phoenix. Under those circumstances, Qwest delivers the call to the Level 3 POP in Phoenix. But unlike the prior example, Level 3 wants to treat the call as local when it is really interexchange in nature.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS ON VNXX.

A. My summary is very simple. Qwest's language is consistent with Arizona statutes, rules, tariffs and decisions. It is consistent with NANPA rules. It is likewise consistent with federal statutes and rules. Qwest's language bases the categorization of calls on the location of the calling and called parties, an approach that is mandated by Arizona law.

Level 3, on the other hand, proposes a sweeping change in categorizing calls, all for the purpose of avoiding carrier compensation mechanisms that govern others in the industry. Its purpose is quite obvious. By pretending that interexchange traffic is local (which is the essence of VNXX), Level 3 wants to be able to originate traffic for its ISPs and terminate traffic for its VoIP customers throughout Iowa and force Qwest to transport this traffic for free. In an effort to justify its proposals, Level 3 uses red herrings like FX service (which is not the same as VNXX) and its claim that, because it has built a modern IP-based network, it should not be required to play by the same rules that govern the industry. The

latter argument misses a critical point: the special rules Level 3 seeks relate to its use of the PSTN, not its IP network.

Qwest, like most others in the industry, has suggested that the FCC reform intercarrier compensation. But it must be done on a comprehensive and rational basis that takes into account the consequences on the public interest and individual participants in telecommunications markets. Level 3's approach, which in effect would reform compensation methods to its benefit but require the rest of the industry to play by existing rules, would not only benefit Level 3 financially, it would create a result that is directly contrary to the goal of competitive neutrality. Level 3's self-serving approach should be rejected by the Commission.

VII. DISPUTED ISSUE 4: COMPENSATION FOR VOICE AND VOIP TRAFFIC

Q. DOES LEVEL 3 ADDRESS THE CONTRACT LANGUAGE FOR COMPENSATION FOR VOICE AND VOIP TRAFFIC IN ITS TESTIMONY?

A. No. Level 3 provided no testimony regarding the specific contract language in dispute for the compensation for voice and VoIP traffic. Level 3 does provide general testimony, however, relating to these issues, which I addressed above in the VoIP and VNXX sections of my rebuttal testimony.

VIII. DISPUTED ISSUE 19: ISP BOUND 3:1 RATIO, SECTION 7.3.6.2

Q. DOES LEVEL 3 ADDRESS THE CONTRACT LANGUAGE FOR ISSUE 19?

1 A. No. Level 3 provided no testimony regarding the language in dispute for Issue 19. As
2 discussed in my direct testimony, Qwest has not yet brought this matter before the
3 Commission and the Commission has not yet ruled on Qwest's method of identifying ISP
4 traffic.

5 **IX. DISPUTED ISSUE 10: DEFINITION OF INTERCONNECTION**

6 **Q. DOES LEVEL 3 ADDRESS THE DEFINITION OF INTERCONNECTION IN ITS**
7 **TESTIMONY?**

8 A. No. Level 3 provided no testimony regarding the language in dispute for the definition of
9 interconnection in its testimony. Mr. Gates did mention interconnection on page 13 of his
10 testimony, but he simply said the FCC rules refer to "interconnection" as the linking of two
11 networks. There is no testimony explaining why Qwest's definition should not be
12 accepted. Thus, Qwest's language should be adopted.
13

14 **X. DISPUTED ISSUE 11: DEFINITION OF INTEREXCHANGE CARRIER**

15 **Q. DOES LEVEL 3 ADDRESS THE DEFINITION OF INTEREXCHANGE CARRIER**
16 **IN ITS TESTIMONY?**

17 A. No. Level 3 provided no testimony to support its position regarding the definition of
18 interexchange carrier in its testimony. Thus, Qwest's language should be adopted.

1 **XII. DISPUTED ISSUE 12: DEFINITION OF INTRALATA TOLL TRAFFIC**

2 **Q. DOES LEVEL 3 ADDRESS THE DEFINITION OF INTRALATA TOLL TRAFFIC**
3 **IN ITS TESTIMONY?**

4 A. No. Level 3 provided no testimony to support its position regarding the definition of
5 intraLATA toll traffic. Thus, Qwest's language should be adopted.

6 **XII. DISPUTED ISSUE 14: DEFINITION OF TELEPHONE EXCHANGE SERVICE**

7 **Q. DOES LEVEL 3 ADDRESS THE DEFINITION OF TELEPHONE EXCHANGE**
8 **SERVICE IN ITS TESTIMONY?**

9 A. No. Level 3 provided no testimony to support its position regarding the definition of
10 telephone exchange service in its testimony. As previously discussed, several definitions
11 and other provisions of Qwest's Arizona tariffs demonstrate that the Commission views the
12 local/long distance distinction from a geographical perspective, and among the relevant
13 definitions are exchange, exchange service, and local exchange service. Qwest's definition
14 of telephone exchange service should be adopted.

15 **XIII. DISPUTED ISSUE 15: DEFINITION OF TELEPHONE TOLL SERVICE**

16 **Q. DOES LEVEL 3 ADDRESS THE DEFINITION OF TELEPHONE TOLL SERVICE**
17 **IN ITS TESTIMONY?**

A. No. Level 3 provided no testimony to support its position regarding the definition of telephone toll service in its testimony. Thus, Qwest's language should be adopted.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	**DOCKET NO. T-03654A-05-0350** **T-01051B-05-0350**
STATE OF Colorado **COUNTY OF Denver**	)	**AFFIDAVIT OF LARRY BROTHERSON**
	:	**SS**

Larry Brotherson, of lawful age being first duly sworn, depose and states:

1. My name is Larry Brotherson. I am Director of Wholesale Advocacy for Qwest Corporation in Denver Colorado. I have caused to be filed written Rebuttal testimony in Docket No. T-03654A-05-0350 and T-0105B-05-0350.

2. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.

Further affiant sayeth not.

Larry Brotherson

Larry Brotherson

SUBSCRIBED AND SWORN to before me this 9th day of August, 2005.

Jean M Towner

Notary Public

My Commission Expires: 4-13-2006

JEAN M. TOWNER
NOTARY PUBLIC
STATE OF COLORADO

INDEX TO EXHIBITS

DESCRIPTION **Exhibit**

Level 3 Response to Data Request #28.....LBB-4

1699902/67817.259

EXHIBIT
LBB 4

28. Does Level 3 consider a call that originates in Time Division Multiplex ("TDM"), is converted into Internet Protocol (IP), and then is terminated in TDM (commonly referred to as a TDM-IP-TDM call) a VoIP call for purposes of the interconnection agreement in this case?

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the basis that it is vague, ambiguous, and overly broad. Level 3 further objects to this request on the grounds that it calls for speculation. In addition, Level 3 objects on the grounds that it seeks legal conclusions rather than facts and is therefore not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving its objections, Level 3 responds as follows: No.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

Tim Gates
Senior Vice President
QSI Consulting
(303) 424-4433

EXHIBIT
Q3
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
MARC SPITZER
Commissioner
WILLIAM A. MUNDELL
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)))))))	Docket No. T-03654A-05-0350 T-01051B-05-0350

DIRECT TESTIMONY OF WILLIAM R. EASTON

ON BEHALF OF

QWEST CORPORATION

(Disputed Issue Nos. 1, 2, 5, 13, 17, 18, 21 AND 22)

JULY 15. 2005

TABLE OF CONTENTS

I.	IDENTIFICATION OF WITNESS	1
II.	PURPOSE OF TESTIMONY	2
III.	DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION	3
IV.	DISPUTED ISSUE NO. 2: COMBINING TRAFFIC ON INTERCONNECTION TRUNKS	25
V.	DISPUTED ISSUE NO. 5: SHOULD INTERCONNECTION TERMS BE INCORPORATED BY REFERENCE	33
VI.	DISPUTED ISSUE NO. 13: LOCAL INTERCONNECTION SERVICE DEFINITION	34
VII.	DISPUTED ISSUE NO. 17: TRUNK FORECASTING	36
VIII.	DISPUTED ISSUE NO. 18: JURISDICTIONAL ALLOCATION FACTORS	39
IX.	DISPUTED ISSUE NO. 21: ORDERING OF INTERCONNECTION TRUNKS	43
X.	DISPUTED ISSUE NO. 22: COMPENSATION FOR CONSTRUCTION	44
XI.	SUMMARY/CONCLUSION	46

I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is William R. Easton. My business address is 1600 7th Avenue, Seattle Washington. I am employed as Director – Wholesale Advocacy. I am testifying on behalf of Qwest Corporation ("Qwest").

Q. PLEASE GIVE A BRIEF BACKGROUND OF YOUR EDUCATIONAL BACKGROUND AND TELEPHONE COMPANY EXPERIENCE.

A. I graduated from Stanford University in 1975, earning a Bachelor of Arts degree. In 1980, I received a Masters of Business Administration from the University of Washington. In addition, I am a Certified Management Accountant.

I began working for Pacific Northwest Bell in 1980, and have held a series of jobs in financial management with U S WEST, and now with Qwest, including staff positions in the Treasury and Network organizations. From 1996 through 1998, I was Director – Capital Recovery. In this role I negotiated depreciation rates with state commission and FCC staffs and testified in various regulatory proceedings. From 1998 until 2001 I was a Director of Wholesale Finance, responsible for the management of Wholesale revenue streams from a financial perspective. In this capacity I worked closely with the Product Management organization on their

1 product offerings and projections of revenue. In October of 2001 I moved from
2 Wholesale Finance to the Wholesale Advocacy group, where I am currently
3 responsible for advocacy related to Wholesale products and services. In this role I
4 work extensively with the Product Management, Network and Costing
5 organizations.
6
7 **Q. HAVE YOU TESTIFIED PREVIOUSLY IN ARIZONA?**
8 A. Yes I have. I testified in docket numbers T-01051B-97-0689, U-3021-96-448, T-
9 02428A-03-0553, T01051B-02-0871 and T-01051B-04-0152.
10 .
11

12 **II. PURPOSE OF TESTIMONY**

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**
14 A. The purpose of my testimony is to explain Qwest's positions, and the regulatory
15 policies underlying those positions, as they relate to certain disputed issues
16 between the parties. My testimony will show that the Qwest position on these
17 issues seeks to strike a balance between meeting the interconnection needs of
18 Level 3, while at the same time ensuring that the services, terms and conditions in
19 the agreement comply with the governing law and are technically feasible.

Specifically, my testimony will address the following issues from the Matrix of Unresolved Issues filed by Level 3 in this arbitration:

- Issue No. 1: Costs of Interconnection
- Issue No. 22: Combining Traffic on Interconnection Trunks
- Issue No. 5: Should Interconnection Terms be Incorporated by Reference
- Issue No. 13: Local Interconnection Service Definition
- Issue No. 17: Trunk Forecasting
- Issue No. 18: Jurisdictional Allocation Factors
- Issue No. 21: Ordering of Interconnection Trunks
- Issue No. 22: Compensation for Construction

III. DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1.

A. Issue No. 1 is comprised of 10 subparts (1A-1J), all of which have to do with local interconnection. Although Level 3 characterizes this issue as being a question of whether Level 3 may exchange traffic at a single point of interconnection in the LATA, this issue is actually about compensation for the use of Qwest's network. In this case, Level 3 has requested interconnection at a single point in each LATA. There is presently no dispute as to where the interconnection occurs or how many points of interconnection there will be. What is in dispute is who bears the costs of the interconnection Level 3 has requested. Qwest contends that Level 3 is responsible for compensating Qwest for the interconnection costs that Qwest incurs to honor Level 3's request. Contrary to Level 3's claims, this is true even when costs are incurred on Qwest's side of the point of interconnection.

Under the Telecommunications Act of 1996, Qwest has a duty to provide interconnection with its local exchange network "on rates, terms and conditions that are just, reasonable, and nondiscriminatory" and in accordance with the requirements of Section 252 of the Act.[1] Section 252 of the Act in turn provides that determinations by a state commission of the just and reasonable rate for the interconnection shall be "based on the cost...of providing the interconnection,"

[1] 47 U.S.C. §251(c)(2)(D).

1 "nondiscriminatory" and "may include a reasonable profit."[2] As the FCC has
2 recognized, these provisions make clear that CLECs must compensate incumbent
3 LECs for the costs incumbent LECs incur to provide interconnection.[3]
4
5 Qwest has fulfilled its duty to provide interconnection by developing Local
6 Interconnection Service (LIS) for CLECs to interconnect with Qwest. LIS has
7 multiple intercarrier transport options. One option, the Mid-Span Meet POI option,
8 allows the CLEC to build to a mid-way point between the CLEC's POI/switch and a
9 Qwest tandem or end office switch. Another option is collocation, which allows a
10 CLEC to put equipment in one of Qwest's serving wire centers and interconnect at
11 that collocation. Both of these options put some cost of establishing the point of
12 interconnection on the CLEC. Qwest also provides an entrance facility option for
13 purchase for those CLECs who do not want to incur capital expense by either
14 laying fiber for a mid-span meet POI or setting up a collocation. An entrance
15 facility creates transport between a CLEC building and the nearest Qwest building
16 termed a Serving Wire Center (SWC). Once the CLEC has interconnected with
17 Qwest at the SWC, the CLEC may need to have Direct Trunk Transport and
18 multiplexing to complete calls throughout the Qwest network. There are multiple

---

[2] 47 U.S.C. §252(d)(1)

[3] See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, ¶¶209, 11 FCC Rec. 15499 (August 8, 1996), *aff'd in part and rev'd in part, Iowa Utils. Bd. v. FCC*, 525 U.S. 1133 (1999)(the "*Local Competition Order*").

costs associated with Qwest providing entrance facility, direct trunk transport and multiplexing. These costs have been identified and discussed in cost dockets with the Commission. As stated earlier, Qwest is allowed to recover costs that are just and reasonable and based on the cost of providing interconnection.

It makes sense that the cost causer compensates Qwest for interconnection and transport costs. If the cost causer (Level 3) does not pay, then Qwest end user customers would have to bear the cost. This may reasonably result in an increase to Qwest retail service rates even for customers who have no interest in surfing the internet via dial-up service. Qwest's end user customers should not have to bear the burden of paying for Level 3's ISP service.

With this as background, the next sections of my testimony will discuss each of the disputed sub-issues (1A-1J)

Issue No. 1A

Q. PLEASE DESCRIBE ISSUE NO. 1A.

A. Issue No. 1A involves disputed language which Level 3 characterizes as having to do with the right to interconnect at a single point in the LATA and obligations on the respective sides of the point of interconnection. As Mr. Linse discusses in his

testimony, Qwest has not required Level 3 to interconnect at each end office in the LATA. The real issue here is that Level 3 does not want to pay for the use of Qwest's network.

Q. WHAT IS THE LANGUAGE IN DISPUTE?

A. The parties disagree about the language for Section 7.1.1 of the agreement. Qwest proposes the following language:

> 7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Exchange Service (EAS/Local traffic), IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll), ISP-Bound traffic, and Jointly Provided Switched Access (InterLATA and IntraLATA) traffic. Qwest will provide Interconnection at any Technically Feasible point within its network. Interconnection, which Qwest currently names "Local Interconnection Service" (LIS), is provided for the purpose of connecting End Office Switches to End Office Switches or End Office Switches to local or Access Tandem Switches for the exchange of Exchange Service (EAS/Local traffic); or End Office Switches to Access Tandem Switches for the exchange of IntraLATA LEC Toll or Jointly Provided Switched Access traffic. Qwest Tandem Switch to CLEC Tandem Switch connections will be provided where Technically Feasible. New or continued Qwest local Tandem Switch to Qwest Access Tandem Switch and Qwest Access Tandem Switch to Qwest Access Tandem Switch connections are not required where Qwest can demonstrate that such connections present a risk of Switch exhaust and that Qwest does not make similar use of its network to transport the local calls of its own or any Affiliate's End User Customers.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following:

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Telecommunications Including Telephone Exchange Service And Exchange Access traffic. Qwest will provide Interconnection at any Technically Feasible point within its network.

7.1.1.1 **Establishment of SPOI**: Qwest agrees to provide CLEC a Single Point of Interconnection (SPOI) in each Local Access Transport Area (LATA) for the exchange of all telecommunications traffic. The SPOI may be established at any mutually agreeable location within the LATA, or, at Level 3's sole option, at any technically feasible point on Qwest's network. Technically feasible points include but are not limited to Qwest's end offices, access tandem, and local tandem offices.

7.1.1.2 **Cost Responsibility.** Each Party is responsible for constructing, maintaining, and operating all facilities on its side of the SPOI, subject only to the payment of intercarrier compensation in accordance with Applicable Law. In accordance with FCC Rule 51.703(b), neither Party may assess any charges on the other Party for the origination of any telecommunications delivered to the other Party at the SPOI, except for Telephone Toll Service traffic outbound from one Party to the other when the other Party is acting in the capacity of a provider of Telephone Toll Service, to which originating access charges properly apply.

7.1.1.3 Facilities included/transmission rates. Each SPOI to be established under the terms of this Attachment shall be deemed to include any and all facilities necessary for the exchange of traffic between Qwest's and Level 3's respective networks within a LATA. Each Party may use an Entrance Facility (EF), Expanded Interconnect Channel Termination (EICT), or Mid Span Meet Point of Interconnection (POI) and/or Direct Trunked Transport (DTT) at DS1, DS3, OC3 or higher transmission rates as, in that Party's reasonable judgment, is appropriate in light of the actual and anticipated volume of traffic to be exchanged. If one Party seeks to establish a higher transmission rate facility than the other Party would establish, the other Party shall nonetheless reasonably accommodate the Party's decision to use higher transmission rate facilities.

7.1.1.4 Each Party Shall Charge Reciprocal Compensation for the Termination of Traffic to be carried. All telecommunications of all types shall be exchanged between the Parties by means of from the physical facilities established at Single Point of Interconnection Per LATA onto its Network Consistent With Section 51.703 of the FCC's Rules:

> 7.1.1.4.1 Level 3 may interconnect with Qwest at any technically feasible point on Qwest's network for the exchange of telecommunications traffic. Such technically feasible points include but are not limited to Qwest access tandems or Qwest local tandems. When CLEC is interconnected at the SPOI. separate trunk groups for separate types of traffic may be established in accordance with the terms hereof. No separate physical interconnection facilities, as opposed to separate trunk groups within SPOI facilities, shall be established except upon express mutual agreement of the Parties.

Q. WHY IS QWEST OPPOSED TO THE LEVEL 3 LANGUAGE?

A. With regard to the SPOI, Level 3's language is not appropriate from a network standpoint. Mr. Linse's testimony discusses why the language is inappropriate and details the options available to Level 3 to interconnect with Qwest. The final two sections of Level 3's language have to do with cost responsibility and do not belong in this section. Section 7.1 has to do with interconnection facility options, not compensation. Qwest's proposals for compensation, including reciprocal compensation, appear elsewhere in the interconnection agreement and will be fully discussed as disputed issues later in this testimony.

Q. LEVEL 3 ALSO OBJECTS TO QWEST'S LANGUAGE FOR SECTION 7.1.1.1 AND SECTION 7.1.1.2. ARE THESE SECTIONS RELATED TO THE ISSUES YOU HAVE JUST DISCUSSED?

A. No. These two sections have to do with VoIP traffic and will be discussed in the testimony of Mr. Brotherson.

Issue No. 1B

Q. PLEASE DESCRIBE ISSUE NO. 1B.

A. Issue No. 1B concerns the methods by which the parties facilitate interconnection between their respective networks. This issue is addressed in the testimony of Mr. Linse.

Issue No. 1C

Q. PLEASE DESCRIBE ISSUE NO. 1C.

A. Issue No. 1C concerns Section 7.2.2.1.1 of the agreement, which describes how Exchange Service traffic will be terminated. Both Qwest and Level 3 agree that Exchange Service (EAS/Local) traffic will be terminated as Local Interconnection Service (LIS), but Qwest disagrees with the additional language that Level 3 has added to this section.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING TO ADD?

A. After the agreed upon description of Exchange Service traffic termination, Level 3 proposes to insert the following language:

> Notwithstanding references to LIS and to trunking and facilities used or provisioned in association with LIS, nothing in this Agreement shall be construed to require CLEC to pay Qwest for any services or facilities on Qwest's side of the POI in connection with the origination of traffic from

> Qwest to CLEC; and nothing herein shall be construed to require CLEC to pay for any services or facilities on Qwest's side of the POI in connection with the termination of traffic from CLEC by Qwest, other than reciprocal compensation payments as provided in Section ___ hereof.

Q. WHY DOES QWEST OBJECT TO THIS LANGUAGE?

A. Qwest objects to the inserted language because it deals with compensation, a subject which is more appropriately addressed in Section 7.3 of the agreement. In fact, Level 3 attempts to insert similar language at multiple places in the interconnection agreement. Level 3's persistence does nothing to change its obligations under the law. As I stated in my preface to Issue No. 1, the Act clearly allows for Qwest to receive compensation for providing interconnection to CLECs.

Issue No. 1D

Q. PLEASE EXPLAIN ISSUE NO. 1D.

A. Issue No. 1D has to do with transport services to deliver Exchange Service EAS/Local traffic from the POI to the terminating party's end office switch or tandem switch for call termination.

Q. WHAT LANGUAGE IS QWEST PROPOSING FOR THIS SECTION?

A. Qwest proposes the following language:

> 7.2.2.1.2.2 CLEC may purchase transport services from Qwest or from a third party, including a third party that has leased the private line transport service facility from Qwest. Such transport provides a transmission path for the LIS trunk to deliver the originating Party's Exchange Service EAS/Local traffic to the terminating Party's End Office Switch or Tandem Switch for call termination. Transport may be purchased from Qwest as Tandem Switch routed (i.e., tandem switching, tandem transmission and direct trunked transport) or direct routed (i.e., direct trunked transport). This Section is not intended to alter either Party's obligation under Section 251(a) of the Act.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following language:

> 7.2.2.1.2.2. CLEC may <u>order</u> transport services from Qwest or from a third-party, including a third party that has leased the private line transport service facility from Qwest <u>for purposes of network management and routing of traffic to/from the POI.</u> Such transport provides a transmission path for the LIS trunk to deliver the originating Party's Exchange Service EAS/Local traffic to the terminating Party's End Office Switch or Tandem Switch for call termination. This Section is not intended to alter either Party's obligation under Section 251(a) of the Act or under Section 51.703 or 51.709 of the FCC's Rules.

Q. WHAT IS THE DIFFERENCE BETWEEN THE TWO PROPOSALS?

A. Level 3 changes the word "purchase" to "order" in the first sentence and adds the words which have been underlined at the end of the sentence. Level 3 also strikes the second to last sentence in Qwest's language which begins, "Tandem transport may be purchased from Qwest..." Level 3 mistakenly believes that removing the word "purchase" somehow relieves it of the obligation to compensate Qwest for the use of its network. Level 3 acknowledges this transport is necessary, as it has not

objected to the sentence which states, "Such transport provides a transmission path for the LIS trunk to deliver the originating Party's Exchange Service EAS/Local traffic to the terminating Party's End Office Switch or Tandem Switch for call termination." It has even acknowledged that it needs to order transport services. What Level 3 refuses to acknowledge is that it has an obligation to compensate Qwest for providing the services which allow Level 3 to serve its ISP end user customers. Compensation issues do not belong in this section and will be addressed fully later in the testimony.

Issue No. 1E

Q. PLEASE EXPLAIN NO. 1E.

A. Issue No. 1E concerns Section 7.2.2.1.4 of the interconnection agreement which discusses direct trunked transport. Qwest has proposed the following language:

> 7.2.2.1.4 LIS ordered to a Tandem Switch will be provided as direct trunked transport between the Serving Wire Center of CLEC's POI and the Tandem Switch. Tandem transmission rates, as specified in Exhibit A of this Agreement, will apply to the transport provided from the Tandem Switch to Qwest's End Office Switch.

Q. WHAT POSITION IS LEVEL 3 TAKING ON THIS ISSUE?

A. Level 3 has agreed to the first sentence but has removed the last sentence, again, apparently in the belief that removing any reference to rates relieves it of the

obligation to compensate Qwest for the use of the Qwest network to provide service to Level 3's end user customers.

Issue No. 1F

Q. PLEASE EXPLAIN ISSUE NO. 1F.

A. No. 1F concerns Section 7.2.2.9.6 of the agreement which discusses Level 3's ability to interconnect at tandem and end office switches. Qwest proposes the following language:

> 7.2.2.9.6 The Parties shall terminate Exchange Service (EAS/Local) traffic on Tandem Switches or End Office Switches. CLEC may interconnect at either the Qwest local tandem or the Qwest access tandem for the delivery of local exchange traffic. When CLEC is interconnected at the access tandem and when there is a DS1 level of traffic (512 BHCCS) over three (3) consecutive months between CLEC's Switch and a Qwest End Office Switch, Qwest may request CLEC to order a direct trunk group to the Qwest End Office Switch. CLEC shall comply with that request unless it can demonstrate that such compliance will impose upon it a material adverse economic or operations impact. Furthermore, Qwest may propose to provide Interconnection facilities to the local Tandem Switches or End Office Switches served by the Access Tandem Switch at the same cost to CLEC as Interconnection at the Access Tandem Switch. If CLEC provides a written statement of its objections to a Qwest cost-equivalency proposal, Qwest may require it only: (a) upon demonstrating that a failure to do so will have a material adverse affect on the operation of its network and (b) upon a finding that doing so will have no material adverse impact on the operation of CLEC, as compared with Interconnection at such Access Tandem Switch.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following language:

> 7.2.2.9.6 When CLEC is interconnected at the access tandem and when there is a DS1 level of traffic (512 BHCCS) over three (3) consecutive months between CLEC's Switch and a Qwest End Office Switch, Qwest may request CLEC to order a direct trunk group to the Qwest End Office Switch. Notwithstanding references to Qwest's ability to requests that CLECs order direct trunk groups to the Qwest end office, nothing in this agreement shall e shall be construed to require CLEC to pay Qwest for any services or facilities on Qwest's side of the POI in connection with the origination of traffic from Qwest to CLEC; and nothing herein shall be construed to require CLEC to pay for any services or facilities on Qwest's side of the POI in connection with the termination of traffic from CLEC by Qwest, other than reciprocal compensation payments as provided in this Agreement.

Q. WHY IS QWEST OPPOSED TO THE LEVEL 3 LANGUAGE?

A. Level 3 has stricken the first two sentences of Qwest's language which describes how Level 3 may interconnect at Qwest local and tandem switches. Mr. Linse describes in his testimony why this language is important from a network perspective. In addition, while agreeing that Qwest may request Level 3 to order a direct trunk group to a Qwest end office switch, Level 3 has removed the Qwest language that would have Level 3 comply with the request, thereby effectively absolving Level 3 of any responsibility for network efficiencies. Finally, Level 3 again inserts the disclaimer that it should not have to pay for the use of the Qwest network. This language not only ignores Level 3's obligations under the law, but is also clearly misplaced in a section describing the technical aspects of interconnection.

Issue No. 1G

Q. PLEASE DESCRIBE ISSUE NO. 1G.

A. Issue No. 1G concerns Sections 7.3.1.1.3 and 7.3.1.1.3.1 which discuss how the cost of jointly used facilities shall be shared by the parties.

Q. WHAT LANGUAGE DOES QWEST PROPOSE?

A. Qwest proposes the following language:

> 7.3.1.1.3 If the Parties elect to establish LIS two-way trunks, for reciprocal exchange of Exchange Service (EAS/Local) traffic, the cost of the LIS two-way facilities shall be shared among the Parties by reducing the LIS two-way entrance facility (EF) rate element charges as follows:
>
> 7.3.1.1.3.1 Entrance Facilities - The provider of the LIS two-way Entrance Facility (EF) will initially share the cost of the LIS two-way EF by assuming an initial relative use factor (RUF) of fifty percent (50%) for a minimum of one (1) quarter if the Parties have not exchanged LIS traffic previously. The nominal charge to the other Party for the use of the EF, as described in Exhibit A, shall be reduced by this initial relative use factor. Payments by the other Party will be according to this initial relative use factor for a minimum of one (1) quarter. The initial relative use factor will continue for both bill reduction and payments until the Parties agree to a new factor, based upon actual minutes of use data for non-ISP-bound traffic to substantiate a change in that factor. If a CLEC's End User Customers are assigned NPA-NXXs associated with a rate center different from the rate center where the Customer is physically located, traffic that does not originate and terminate within the same Qwest local calling area (as approved by the Commission), regardless of the called and calling NPA-NXXs, involving those Customers is referred to as "VNXX traffic". For purposes of determining the RUF, the terminating carrier is responsible for ISP-bound traffic and for VNXX traffic. If either Party demonstrates with non-ISP-bound traffic data that actual minutes of use during the first quarter justify a new relative use factor, that Party will send a notice to the other Party. Once the Parties finalize a new factor, the bill reductions and payments will apply going forward, from the date the original notice was sent. ISP-bound traffic or traffic delivered to Enhanced Service providers is interstate in nature. Qwest has never agreed to

exchange VNXX Traffic with CLEC.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following:

> 7.3.1.1.3 Each party is solely responsible for any and all costs arising from or related to establishing and maintaining the interconnection trunks and facilities it uses to connect to the POI. Thus, neither party shall require the other to bear any additional costs for the establishment and operation of interconnection facilities that connect its network to its side of the POI.
>
> 7.3.1.1.3.1 Intercarrier compensation. Intercarrier compensation for traffic exchanged at the SPOI shall be in accordance with FCC Rule 51.703 and associated FCC rulings. For avoidance of doubt, any traffic that constitutes "telecommunications" and that is not subject to switched access charges, including without limitation so-called "information access" traffic, shall be subject to compensation from the originating carrier to the terminating carrier at the FCC-mandated capped rate (as of the effective date hereof) of $0.0007 per minute. Any dispute about the appropriate intercarrier compensation applicable to any particular traffic shall be resolved by reference to the FCC's rule and associated orders.

Q. WHY IS QWEST OPPOSED TO THE LEVEL 3 LANGUAGE?

A. Level 3 again denies that it has an obligation to compensate Qwest for the use of its network. This assertion flies in the face of the FCC's rule 51.709(b) which states:

> The rate of a carrier providing transmission facilities dedicated to the transmission of traffic between two carriers' networks shall recover only the costs of the proportion of that trunk capacity used by an interconnecting carrier to send traffic that will terminate on the providing

carrier's network. Such proportions may be measured during peak periods.

Q. IN PREVIOUS ARBITRATIONS WITH QWEST DID LEVEL 3 MAKE THIS SAME ARGUMENT?

A. No. In previous arbitrations, Level 3 agreed to use a relative use factor to apportion transport cost associated with two-way trunking, but disagreed as to the type of traffic that should be included in the calculation.

Q. IS THERE A FORM OF INTERCONNECTION THAT LEVEL 3 CAN EMPLOY WHICH WOULD ALLOW IT TO AVOID PAYING FOR THE RELATIVE USE OF AN ENTRANCE FACILITY?

A. Yes. Under the agreed-to provisions of the interconnection agreement, there are a number of ways in which Level 3 can choose to interconnect with the Qwest network. One of these options, explained in 7.1.2.3 of the agreement, is a Mid-Span Meet POI. The relative use calculations which apply to an entrance facility purchased from Qwest do not apply to a Mid-Span Meet Point of Interconnection. As noted in Section 7.1.2.3, under this option "[e]ach Party will be responsible for its portion of the build to the Mid-Span Meet POI." Thus, to the extent that Level 3 seeks to avoid any financial responsibility for facilities on the Qwest side of the Mid-Span POI, it is free, under this agreement, to select the Mid-Span Meet POI option under which both parties are obligated to construct facilities to the agreed to

POI and neither party is responsible for the charges associated with the facility on the other party's side of the Mid-Span POI. Level 3 can also choose to provide collocation, which would also not entail the purchase of an entrance facility to connect with Qwest's network.

There are, however, sound reasons for Level 3 to choose the entrance facility options, instead of the Mid-Span Meet POI. By so choosing, Level 3 is able to avoid the initial, and often substantial, investment associated with building its own facilities to the POI. By choosing the entrance facility option, Level 3 pays a nominal non-recurring charge to "turn-on" the Qwest facilities and then pays a monthly recurring charge that is subject to a credit based on Qwest's relative use of the facilities. Level 3 is clearly avoiding significant capital expenditures by ordering the LIS entrance facility, yet is unwilling to compensate Qwest for this facility.

Q. WHY IS IT APPROPRIATE TO EXCLUDE ISP-BOUND AND VNXX TRAFFIC FROM THE RELATIVE USE CALCULATION?

A. The FCC rule I just cited appears in Subpart H of the FCC's rules which is titled "Reciprocal Compensation for Transport and Termination of Telecommunications traffic". In Section 51.701(b)(1) the FCC defines "telecommunications traffic" as traffic "exchanged between a LEC and a telecommunications carrier other than a CMRS provider, *except for telecommunications traffic that is interstate or intrastate*

exchange access, information access, or exchange services for such access." (Italics added). In the ISP Remand Order[4] the FCC determined that ISP bound traffic (destined for a local ISP server) is information access. As such, this traffic is expressly excluded from the traffic referred to in 51.709(b). Similarly, VNXX (or interexchange) traffic must be excluded, for, as Mr. Brotherson makes clear in his testimony, VNXX calls are not subject to the reciprocal compensation obligations of 251(b)(5).

Q. HAS THE ARIZONA COMMISSION RULED PREVIOUSLY AS TO WHETHER ISP BOUND TRAFFIC SHOULD BE EXCLUDED FROM THE RELATIVE USE CALCULATION?

A. Yes. In a 2004 arbitration between Qwest and AT&T Communications, the Commission ruled that internet related traffic should be excluded when determining relative use, stating that this is the logical extension of FCC decisions.[5]

---

[4] Order on Remand, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Intercarrier Compensation for ISP-Bound Traffic*, 16 FCCR 9151 (2001) ("*ISP Remand Order*") ¶ 42.

[5] *In the Matter of Petition of AT&T Communications of the Mountain States, Inc. and TCG Phoenix, for Arbitration With Qwest Corporation, Inc. Pursuant to 47 U.S.C.Section 252(b).* Docket No. T-02428A-03-0553. (Arizona Corporation Commission, December 17, 2003).

Q. IN ITS PETITION, LEVEL 3 CITES THE FCC'S RULE 51.703(B) AND ARGUES THAT ILECS ARE PROHIBITED FROM LEVYING CHARGES FOR TRAFFIC ORIGINATING ON THEIR OWN NETWORKS. DO YOU AGREE?

A. No. 51.703(b) applies to "telecommunications traffic." As was just discussed, ISP bound traffic (traffic destined for a local ISP server) is "information access" and is specifically excluded from the definition of telecommunication traffic. Clearly, 51.703(b) does not apply in the case of such ISP bound traffic.

<u>Issue No. 1H</u>

Q. PLEASE EXPLAIN THE DISPUTE RELATED TO ISSUE NO. 1H.

A. Issue No. 1H is the same as Issue No. 1G, except that, where 1G concerned allocating the cost of a two-way entrance facility, 1H deals with allocating the cost of two-way direct transport facilities.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest is proposing the following language:

> 7.3.2.2 If the Parties elect to establish LIS two-way DTT trunks, for reciprocal exchange of Exchange Service (EAS/Local) traffic the cost of the LIS two-way DTT facilities shall be shared among the Parties by reducing the LIS two-way DTT rate element charges as follows:
>
> 7.3.2.2.1 Direct Trunked Transport - The provider of the LIS two-way

DTT facility will initially share the cost of the LIS two-way DTT facility by assuming an initial relative use factor of fifty percent (50%) for a minimum of one (1) quarter if the Parties have not exchanged LIS traffic previously. The nominal charge to the other Party for the use of the DTT facility, as described in Exhibit A, shall be reduced by this initial relative use factor. Payments by the other Party will be according to this initial relative use factor for a minimum of one (1) quarter. The initial relative use factor will continue for both bill reduction and payments until the Parties agree to a new factor,–based upon actual minutes of use data for non-ISP-bound traffic to substantiate a change in that factor. If a CLEC's End User Customers are assigned a NPA-NXXs associated with a rate center other than the rate center where the Customer is physically located, traffic that does not originate and terminate within the same Qwest local calling area (as approved by the Commission), regardless of the called and calling NPA-NXXs, involving those Customers is referred to as "VNXX traffic". For purposes of determining the RUF, the terminating carrier is responsible for ISP-bound traffic and for VNXX traffic. If either Party demonstrates with non-ISP-bound traffic data that actual minutes of use during the first quarter justify a new relative use factor, that Party will send a notice to the other Party. Once the Parties finalize a new factor, the bill reductions and payments will apply going forward, from the date the original notice was sent. ISP-bound traffic is interstate in nature. Qwest has never agreed to exchange VNXX Traffic with CLEC.

Q. WHAT IS LEVEL 3'S PROPOSED LANGUAGE?

A. Level 3 proposes the following language:

7.3.2.2 Each party is solely responsible for any and all costs arising from or related to establishing and maintaining the interconnection trunks and facilities it uses to connect to the POI. Thus, neither party shall require the other to bear any additional costs for the establishment and operation of interconnection facilities that connect its network to its side of the POI.

Qwest is opposed to this language for all of the reasons cited in the discussion of Issue No. 1G

Issue No. 1I

Q. PLEASE DESCRIBE ISSUE NO. 1I

A. Issue No. 1I again involves compensation, in this case non-recurring charges for the installation of LIS trunks. Qwest proposes the following language:

> 7.3.3.1 Installation nonrecurring charges may be assessed by the provider for each LIS trunk ordered. Qwest rates are specified in Exhibit A.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following language:

> 7.3.3.1 Neither Party may charge (and neither Party shall have an obligation to pay) any installation nonrecurring charges or the like, for any LIS trunk ordered for purposes of exchanging ISP-Bound Traffic, 251(b)(5) Traffic, and VoIP Traffic that either Party delivers at a POI, other than the intercarrier compensation rates.

Q. ARE QWEST'S OBJECTIONS TO THIS LANGUAGE THE SAME AS FOR THE OTHER INTERCONNECTION COMPENSATION ISSUES?

A. Yes. Qwest opposes this language because it denies Qwest compensation for work performed on behalf of Level 3. In addition, Level 3 inappropriately inserts language regarding the type of traffic to be exchanged over LIS trunks, a subject more appropriately addressed elsewhere in the agreement.

Issue No. 1J

Q. PLEASE DESCRIBE NO. 1J.

A. Like Issue No. 1H, Issue No. 1J involves the assessment of non-recurring charges related to LIS trunking, in this case non-recurring charges related to trunk rearrangements. Qwest proposes the following language:

> 7.3.3.2 Nonrecurring charges for rearrangement may be assessed by the provider for each LIS trunk rearrangement ordered, at one-half (1/2) the rates specified in Exhibit A.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following language:

> 7.3.3.2 Neither Party may charge (and neither Party shall have an obligation to pay) any nonrecurring charges for rearrangement assessed for any LIS trunk rearrangement ordered for purposes of exchanging ISP-Bound Traffic, 251(b)(5) Traffic, and VoIP Traffic that either Party delivers at a POI, other than the intercarrier compensation rates.

Again, Qwest opposes this language because it denies Qwest compensation for work performed on behalf of Level 3 and again adds language regarding the exchange of traffic which is more appropriately addressed elsewhere in the agreement.

IV. DISPUTED ISSUE NO. 2: ALL TRAFFIC ON INTERCONNECTION TRUNKS

Q. PLEASE EXPLAIN DISPUTED ISSUE NO 2.

A. Issue No. 2 concerns what types of traffic may be combined over LIS trunks and whether Qwest is entitled to compensation for the interconnection trunks it provides to Level 3.

Q, WHAT LANGUAGE IS QWEST PROPOSING FOR SECTION 7.2.2.9.3?

A. Qwest is proposing the following language:

> 7.2.2.9.3.1 Exchange Service (EAS/Local), ISP-Bound Traffic, IntraLATA LEC Toll , VoIP traffic and Jointly Provided Switched Access (InterLATA and IntraLATA Toll involving a third party IXC) may be combined in a single LIS trunk group or transmitted on separate LIS trunk groups.
>
> 7.2.2.9.3.1.1 If CLEC utilizes trunking arrangements as described in Section 7.2.2.9.3.1, Exchange Service (EAS/Local) traffic shall not be combined with Switched Access, not including Jointly Provided Switched Access, on the same trunk group, i.e. Exchange Service (EAS/Local) traffic may not be combined with Switched Access Feature Group D traffic to a Qwest Access Tandem Switch and/or End Office Switch.
>
> 7.2.2.9.3.2 CLEC may combine originating Exchange Service (EAS/Local) traffic, ISP-Bound Traffic, IntraLATA LEC Toll, VoIP Traffic and Switched Access Feature Group D traffic including Jointly Provided Switched Access traffic, on the same Feature Group D trunk group.
>
> 7.2.2.9.3.2.1 CLEC shall provide to Qwest, each quarter, Percent Local Use (PLU) factor(s) that can be verified with individual call detail records or the Parties may use call records or mechanized jurisdictionalization using Calling Party Number (CPN) information in lieu of PLU, if CPN is available. Where CLEC utilizes an affiliate's Interexchange Carrier (IXC) Feature Group D trunks to deliver Exchange

Service (EAS/Local) traffic with interexchange Switched Access traffic to Qwest, Qwest shall establish trunk group(s) to deliver Exchange Service (EAS/Local), Transit, and IntraLATA LEC Toll to CLEC. Qwest will use or establish a POI for such trunk group in accordance with Section 7.1.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following language:

7.2.2.9.3.1 Where CLEC exchanges Telephone Exchange Service, Exchange Access Service, Telephone Toll Service, and Information Services traffic with Qwest over a single interconnection network, CLEC agrees to pay Qwest, on Qwest's side of the POI, state or federally tariffed rates applicable to the facilities charges for InterLATA and/or InterLATA traffic in proportion to the total amount of traffic exchanged over such interconnection facility. Otherwise each party remains 100% responsible for the costs of its interconnection facilities on its side of the POI. Thus, by way of illustration only, where 20% of such traffic is interLATA (intrastate and interstate) and the remaining 80% is Section 251(b)(5) Traffic, CLEC would pay Qwest an amount equal to 20% of the applicable tariffed transport rate that would apply to a tariffed facility used solely for the exchange of such access traffic for such traffic exchanged on Qwest's side of the POI over a single interconnection trunk.

Except as expressly provided in Section 7.3.1.1.3, each party shall bear all costs of interconnection on its side of the network in accordance with 47 C.F.R. § 51.703. Accordingly, unless otherwise expressly authorized according to Section 7.3.1.1.3, neither Party may charge the other (and neither Party shall have an obligation to pay) any recurring and/or nonrecurring fees, charges or the like (including, without limitation, any transport charges), associated with the exchange of any telecommunications traffic including but not limited to Section 251(b)(5) Traffic on its side of the POI.

Each party is solely responsible for any and all costs arising from or related to establishing and maintaining the interconnection trunks and facilities it uses to connect to the POI. Thus, neither party shall require the other to bear any additional costs for the establishment and operation of interconnection facilities that connect its network to its side of the POI. If traffic is combined, Section 7.3.9 of this Agreement applies.

7.2.2.9.3.2 CLEC may combine Exchange Service (EAS/Local) traffic, ISP-Bound Traffic, Exchange Access (IntraLATA Toll carried solely by Local Exchange Carriers), VoIP Traffic and Switched Access Feature Group D traffic including Jointly Provided Switched Access traffic, on the same Feature Group D trunk group or over the same interconnection trunk groups as provided in Section 7.3.9.

Q. PLEASE SUMMARIZE THE POSITIONS OF THE TWO PARTIES ON THIS ISSUE.

A. As I noted previously, there are two issues here: 1) compensation for LIS trunking on the Qwest side of the POI and; 2) what types of traffic may be combined on LIS trunks. With regard to the first issue, Level 3 takes the position that, with the exception of reciprocal compensation charges, it is not responsible for any interconnection charges on the Qwest side of the POI. Qwest believes that it is entitled to recover costs it incurs to provide interconnection to Level 3. These arguments were covered at length in the discussion of Issue No. 1 and need not be repeated here.

Q. WHAT ARE THE PARTIES' POSITIONS AS TO WHAT TRAFFIC IS ALLOWED OVER LIS TRUNKS?

A. Level 3 believes it should be allowed to combine all traffic, including switched access traffic, over LIS trunks. Qwest is willing to allow all traffic types, with the exception of switched access traffic, to be carried over LIS trunks. Qwest requires that switched access traffic be carried over Feature Group D (FGD) trunks. Qwest

has required this since 1984 and nothing has changed this requirement. Qwest has agreed to allow all traffic types terminating to Qwest to be combined over FGD trunks.

Q. THE QWEST LANGUAGE IN SECTION 7.2.2.9.3.1 ALLOWS JOINTLY PROVIDED SWITCHED ACCESS TO BE CARRIED OVER LIS TRUNKS. WHAT IS THE INTENT OF ALLOWING JOINTLY PROVIDED SWITCHED ACCESS TRAFFIC TO BE CARRIED OVER LIS TRUNKS?

A. Because IXCs generally connect at the Qwest access tandem rather than directly to the CLEC, this language, which appears in all of Qwest's SGATs, is needed to allow traffic to and from a CLEC end user customer's Presubscribed Interexchange Carrier ("PIC") to be carried over LIS trunks. Thus, CLEC end user customers are able to reach their Presubscribed Interexchange Carriers and the IXCs are able to get calls to CLEC end user customers. This traffic is referred to as Jointly Provided Switched Access because both Qwest and the CLEC are involved in providing access to the IXC.

Q. IS QWEST REQUIRED TO COMBINE SWITCHED ACCESS ON LIS TRUNKS?

A. No. Qwest has no obligation to permit Level 3 to commingle switched access traffic with other types of traffic on the interconnection trunks created under the Agreement. In fact, Qwest is required to provide interconnection for the exchange

of switched access traffic in the same manner that it provided interconnection for such traffic prior to passage of the Act. Section 251(g) of the Act specifically provides:

> On and after February 8, 1996, each local exchange carrier, to the extent that it provides wireline services, shall provide exchange access, information access, and exchange services for such access to interexchange carriers and information service providers in accordance with the same equal access and nondiscriminatory *interconnection restrictions and obligations* (including receipt of compensation) that apply to such carrier on the date immediately preceding February 8, 1996, under any court order, consent decree, or regulation or policy of the Commission, until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission after February 8, 1996.

(Emphasis added). As the FCC has stated, "[p]ursuant to Section 251(g), LECs must continue to offer tariffed interstate access services just as they did prior to the enactment of the 1996 Act."[6]

Nothing in the Act or the FCC's regulations give Level 3 the right to mix switched access traffic with local traffic over the local interconnection trunks between its network and Qwest's established pursuant to Section 251(c)(2) of the Act. The Act and the FCC's regulations interpreting the Act speak to, "interconnection at any technically feasible point within the incumbent LEC's network,"[7] but this instruction

---

[6] *Local Competition Order,* ¶1034.

[7] 47 C.F.R. § 51.305(a)(2).

1 clearly does not apply to traffic carried by Level 3 between LATAs. Any other
2 interpretation would undermine Qwest's switched access tariffs.

3 **Q. DOES LEVEL 3'S OFFER TO PAY QWEST STATE AND FEDERAL TARIFF**
4 **RATES FOR INTERLATA TRAFFIC IN PROPORTION TO THE TOTAL**
5 **AMOUNT OF TRAFFIC GOING OVER THE LIS TRUNK SATISFY THE**
6 **REQUIREMENTS OF 251(g)?**

7 A. No. Level 3's proposal would only allow Qwest to assess a per minute of use
8 charge on switched access traffic. Qwest would still be denied the non-recurring
9 charges and recurring non-traffic sensitive charges that are a part of FGD charges.
10 These are charges that are contained in Qwest's access tariffs and are charges
11 that all IXCs are required to pay.

12

13 **Q. ARE THERE OTHER PROBLEMS WITH THE LEVEL 3 PROPOSAL?**

14 A. Yes. The Level 3 proposal creates serious recording and billing issues as well as
15 issues related to the intercarrier exchange of jointly provided switched access
16 records.

17

18 **Q. WHAT ARE THE BILLING ISSUES THE LEVEL 3 PROPOSAL PRESENTS?**

19 A. Today, IXCs are required to route all interLATA switched access traffic and
20 intraLATA switched access traffic over FGD. Qwest's mechanized billing systems
21 are able to use the actual traffic information recorded by its end office switch from

the FGD trunks, allowing Qwest to accurately and efficiently produce switched access bills. The Level 3 proposal, on the other hand, would rely on factors, not recordings of actual traffic information, and would not allow Qwest to use its existing mechanized billing processes. In fact, implementing the Level 3 proposal would require investment and significant reworking of Qwest systems and processes, forcing Qwest to expend significant resources to meet the special needs of one carrier.

Q. WHAT ARE THE PROBLEMS RELATED TO THE EXCHANGE OF SWITCHED ACCESS RECORDS YOU MENTIONED EARLIER?

A. The undisputed language in Section 7.2.2.4 of the agreement requires the parties to use industry standards developed to handle the provisioning and billing of Jointly Provided Switched Access. Under these standards, Qwest is required to provide industry standard jointly provided switched access records to LECs, WSPs and CLECs when Qwest transports and switches jointly provided switched access traffic. Today these records are produced mechanically, using the information recorded on the FGD trunks. Level 3's use of billing factors would not allow Qwest to provide the industry standard records to the terminating LEC, WSPs or CLEC carriers. If Qwest does not record this traffic as FGD, neither Qwest nor the collaborating LEC, CLEC or WSP can bill the IXC who originated the call. In addition, if one of these IXC calls that Level 3 is requesting to route over LIS were

routed on to another CLEC, ILEC or WSP, Qwest could potentially get billed for switched access or reciprocal compensation for a call that really originated with an IXC, as Qwest would be unable to provide the appropriate JSPA record to the CLEC, ILEC or WSP.

Q. IS QWEST IN A POSITION TO AGREE TO A PROPOSAL THAT WILL IMPACT OTHER LECS AND CLECS?

A. No. Even if Qwest were willing to agree to use factors for the traffic it terminates, Qwest cannot agree to a proposal that will impact all ILECs and CLECs that today rely on Qwest to provide them with a jointly provided switched access record. Without the switched access records they are receiving today, these companies, too, would have to change their systems and processes for billing their portion of switched access to the IXC.

Q. HOW DO YOU RESPOND TO LEVEL 3'S ARGUMENTS THAT COMBINING ALL TRAFFIC OVER A SINGLE TRUNK GROUP IS MORE EFFICIENT?

A. Qwest has offered Level 3 an approach which will allow the network efficiencies that Level 3 is seeking. Qwest's proposed language for Section 7.2.2.9.3.2 offers Level 3 the capability to combine all traffic over a FGD trunk group. Combining all of the traffic over FGD not only allows for the efficiencies Level 3 claims to need, it also allows for mechanized billing of the appropriate tariffed rates and the ability to

1 produce the necessary jointly provided switched access records. There is simply
2 no reason to grapple with the difficulties inherent in Level 3's proposal when a
3 workable solution to combining all traffic on a single trunk group already exists.
4
5 **Q. HAS QWEST ALLOWED OTHER CARRIERS TO USE LIS TRUNKS IN THE**
6 **MANNER THAT LEVEL 3 IS PROPOSING HERE?**
7 A. No. All CLECs interconnected with Qwest have Interconnection Agreements that
8 either provide for the segregation of traffic onto separate trunk groups or the
9 combining of terminating traffic onto a FGD trunk group. There is simply no valid
10 reason to give Level 3 special treatment.
11

12 **V. DISPUTED ISSUE NO. 5: SHOULD INTERCONNECTION TERMS BE**
13 **INCORPORATED BY REFERENCE**

14 **Q. PLEASE EXPLAIN THE NATURE OF THE DISPUTE AROUND THIS ISSUE.**
15 A. Level 3 alleges that Qwest's proposed interconnection agreement attempts to
16 incorporate, by reference, certain state Statement of Generally Available Terms
17 (SGAT) terms and conditions.

18 **Q. DOES QWEST'S PROPOSED AGREEMENT ATTEMPT TO INCORPORATE**
19 **SGAT TERMS AND CONDITIONS?**

A. No. Level 3 has misinterpreted the cross-references that Qwest included in its template interconnection agreement which was used as a basis for negotiations. The SGAT references in the template agreement signify that a commission has approved state-specific language that is different than the generic language used in the fourteen state template. Thus, for example, the state commissions in Colorado, Minnesota and South Dakota have each prescribed language for Section 5.8.1 in the fourteen state template. Qwest's intent in referencing the state SGATs in the template was to signify that the state specific language was to be substituted for the template language in those cases. The interconnection agreement that was submitted with Qwest's response in this docket contains the state specific language that Qwest proposes and contains no cross-references to the SGAT. Hopefully Qwest's clarification and the proposed state specific interconnection agreement will allow the parties to close this issue.

VI. DISPUTED ISSUE NO. 13: LOCAL INTERCONNECTION SERVICE DEFINITION

Q. PLEASE DESCRIBE ISSUE NO. 13.

A. Issue No. 13 relates to the definition of local interconnection service.

Q. WHAT IS QWEST'S PROPOSED DEFINITION FOR LOCAL INTERCONNECTION SERVICE?

A. Qwest proposes the following definition:

> "Local Interconnection Service or "LIS" Entrance Facility" is a DS1 or DS3 facility that extends from CLEC's Switch location or Point of Interconnection (POI) to the Qwest Serving Wire Center. An Entrance Facility may not extend beyond the area served by the Qwest Serving Wire Center.

Q. WHAT IS LEVEL 3'S DEFINITION

A. Level 3 objects to Qwest's definition but fails to provide a definition of its own.

Q. WHAT IS THE BASIS OF LEVEL 3'S OBJECTION?

A. Level 3 claims that the Qwest definition shifts the cost of Qwest's network to Level 3.

Q. DO YOU AGREE?

A. No. The definition of "Local Interconnection Service or 'LIS' Entrance Facility" is nothing more than a definition of the facility that connects Qwest's network to Level 3's network. The definition does not contain any language that determines who bears the cost of this facility. Level 3 provides no legitimate reason for rejecting this definition. Level 3's concern about the allocation of the costs of interconnection is addressed in Issue No. 1G. As I explained in the discussion of Issue No. 1G, Level 3 has the option of using a Mid-Span Meet point or collocation

for interconnection rather than an entrance facility, an option that would allow it to avoid compensating Qwest for an entrance facility on the Qwest side of the POI.

VII. DISPUTED ISSUE NO. 17: TRUNK FORECASTING

Q. PLEASE EXPLAIN ISSUE NO 17.

A. Issue No. 17 has to do with Section 7.2.2.8 of the agreement which discusses LIS forecasting. Level 3 and Qwest have been unable to reach agreement on the LIS forecasting language. Specifically, the parties disagree on the language for Sections 7.2.2.8.4 and 7.2.2.8.5.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest is proposing the following language:

> 7.2.2.8.4 The Parties agree that trunk forecasts are non-binding and are based on the information available to each respective Party at the time the forecasts are prepared. Unforecasted trunk demands, if any, by one Party will be accommodated by the other Party as soon as practicable based on facility availability. Switch capacity growth requiring the addition of new switching modules may require six (6) months to order and install.

> 7.2.2.8.5 In the event of a dispute regarding forecast quantities, where in each of the preceding eighteen (18) months, trunks required is less than fifty percent (50%) of forecast, Qwest will make capacity available in accordance with the lower forecast.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING FOR THESE SECTIONS?

A. Level 3 proposes the following language for Section 7.2.2.8.4:

> 7.2.2.8.4 The forecast will identify trunking requirements for a two (2) year period. From the semi-annual close date as outlined in the forecast cycle, the receiving Party will have one (1) month to determine network needs and place vendor orders which may require a six (6) month interval to complete the network build. For ordering information see Section 7.4. See also Section 7.2.2.8.6

Level 3's proposal does not have a Section 7.2.2.8.5.

Q. HAS QWEST CHANGED ITS PROPOSED LANGUAGE IN THE COURSE OF THE NEGOTIATIONS?

A. Yes. One of Level 3's concerns with Qwest's original language was the requirement of a deposit to construct trunks to forecasted levels when previous forecasts did not match subsequent requirements. Qwest has now removed the deposit language.

Q. DOES LEVEL 3 OBJECT TO THE NEW QWEST LANGUAGE?

A. Although Qwest has offered Level 3 the new language, Level 3 has not yet informed Qwest if the revisions are acceptable.

Q. WHY DOES QWEST FEEL THAT THE LANGUAGE IS NECESSARY?

A. LIS forecasting serves the interest of both parties by helping to ensure that adequate capacity is made available to allow for the exchange of traffic between the parties. As a result, it is important that the interconnection agreement detail how the forecasts are developed and utilized.

Q. WHY IS QWEST PROPOSING TO BUILD TO A LOWER FORECAST WHERE REQUIRED LEVELS HAVE BEEN LESS THAN FORECAST IN PREVIOUS MONTHS?

A. In many instances, making capacity available at forecasted levels will require Qwest to construct new facilities and thereby incur substantial expense. Once a CLEC submits its forecast, however, it has no obligation to order interconnection trunks consistent with its forecast. This could leave Qwest in the unacceptable position of having incurred cost to build new facilities, which then lay underutilized, or worse, dormant or dark. To avoid this situation, Qwest reserves the right to adjust the forecast downward based on the relationship between ordered trunks and forecasted trunks in previous months. This provides the appropriate incentive to the forecasting party and allows Qwest to avoid making needless investments.

VIII. DISPUTED ISSUE NO. 18: JURISDICTIONAL ALLOCATION FACTORS

Q. PLEASE EXPLAIN ISSUE NO. 18.

A. Issue No. 18 concerns jurisdictional allocation factors for billing purposes. Level 3's proposed language introduces several new jurisdictional allocation factors which Qwest opposes.

Q. WHAT LANGUAGE IS QWEST PROPOSING FOR SECTION 7.3.9?

A. Qwest is proposing the following language:

> 7.3.9 To the extent a Party combines Exchange Service (EAS/Local), IntraLATA LEC Toll, and Jointly Provided Switched Access (InterLATA and IntraLATA calls exchanged with a third party IXC) traffic on a single LIS trunk group, the originating Party, at the terminating Party's request will declare quarterly PLU(s). Such PLUs will be verifiable with either call summary records utilizing Calling Party Number information for jurisdictionalization or call detail samples. The terminating Party should apportion per minute of use (MOU) charges appropriately.

Q. UNDER THE QWEST PROPOSED LANGUAGE, HOW IS THE PLU USED?

A. The PLU is used to apportion billing for traffic that does not contain a calling party number and therefore, cannot be jurisdictionalized based on a comparison of the calling and called parties' numbers. The PLU would be applied to the bucket of these "unidentified" calls to determine what percent should be billed at the local rate.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

> 7.3.9 To the extent a Party combines Section 251(b)(5) Traffic and Jointly Provided Switched Access (InterLATA and IntraLATA calls exchanged with a third party IXC) traffic on a single trunk group, the originating Party, at the terminating Party's request will declare monthly PLU(s) PIU(s), and PIPU(s), collectively "Jurisdictional Factors." Such Jurisdictional Factors will be verifiable with either call summary records utilizing Call Record information for jurisdictionalization or call detail samples. The terminating Party should apportion per minute of use (MOU) charges appropriately.
>
> 7.3.9.1 The Jurisdictional Factors - PLU, PIU and PIPU - are defined as follows:
>
> 7.3.9.1.1 PIPU – Percent IP Usage: This factor represents the traffic that is IP Enabled as a percentage of ALL traffic. CLEC has introduced this factor to identify IP-Enabled Services traffic for billing purposes to Qwest on an interim basis until an industry standard is implemented. IP-Enabled traffic includes all IP-TDM and TDM to IP traffic that is exchanged directly between the parties.
>
> 7.3.9.1.2 PIU – Percent Interstate Usage: This factor represents the end-to-end circuit switched traffic (*i.e.* TDM-IP-TDM) that is interstate for services that are billed at tariffed rates on a per Minute Of Use (MOU) basis as a percentage of all end-to-end circuit switched traffic, *i.e.* all interstate traffic after IP-Enabled traffic has been excluded. This factor does not include IP-Enabled Services Traffic.
>
> 7.3.9.1.3 PLU – Percent 251(b)(5) Usage: This factor represents the end-to-end circuit switched 251(b)(5) traffic as a percentage of all end-to-end circuit switched intrastate traffic. This factor distinguishes traffic that is rated as "local" (i.e. "Section 251(b)(5) traffic") from Intrastate toll traffic. This factor does not include IP-Enabled Services traffic.
>
> 7.3.9.2 Unless otherwise agreed to by the parties: (1) factors will be calculated and exchanged on a monthly basis. Percentages will be calculated to two decimal places (for example 22.34%); (2) each party will calculate factors for all traffic that they originate and exchanged directly with the other Party; and (3) the party responsible for collecting data will

collect all traffic data, including but not limited to Call Detail Records (this includes CPN), from each trunk group in the state over which the parties exchange traffic during each study period. The parties will calculate the factors defined in Section 7.9.1, above, as follows:

7.3.9.2.1 PIPU: The PIPU is calculated by dividing the total IP-Enabled Services MOU by the total MOU. The PIPU is calculated on a statewide basis.

7.3.9.2.1.1 Upon ILEC request, CLEC will provide a PIPU factor for all minutes of usage exchanged directly between the Parties over the Interconnection Trunk Groups in each state. CLEC will provide separate PIPU factors for CLEC Terminating IP-enabled Traffic and CLEC Originating IP-enabled Traffic, which terms are defined in Sections 7.8.4.3.1.1 and 7.8.4.3.1.2, respectively, below. Accordingly, the PIPU factor is based upon CLEC's actual and verifiable Call Detail Records of IP-originated traffic

7.3.9.3 Exchange of Data:

7.3.9.3.1 The party responsible for billing will provide the PIPU, PLU and PIU factors to the non-collecting party on or before the 15th of each month, via email (or other method as mutually agreed between the parties), to designated points of contact within each company.

7.3.9.4 Maintenance of Records

7.3.9.4.1 Each company will maintain traffic data on a readily available basis for a minimum period of one year (or however long as required by state and federal regulations) after the end of the month for which such date was collected for audit purposes.

7.3.9.5 Audits

7.3.9.5.1 Each company will have the ability to audit the other company's traffic factors up to a maximum of twice per year. A party seeking audit must provide notice of their intent to audit and include specific dates, amounts and other detail necessary for the party receiving the request to process the audit. Notice must be provided in writing and postmarked as mailed to the audited party within one year after the end of each month(s) for which they seek audit.

7.3.9.5.2 The audited party must provide in a mutually agreeable electronic format traffic data for the months requested according to Section 7.3.9.5.1 above.

7.3.9.6 True-Up

In addition to rights of audit, the Parties agree that where a factor is found to be in error by more than 2%, they will automatically true up the factors and pay or remit the resulting amounts to correct such errors.

Q. WHY IS QWEST OPPOSED TO LEVEL 3'S PROPOSED FACTORS?

A. The only reason for introducing these factors is to allow for billing when switched access traffic is commingled with all other traffic on a LIS trunk group. As was noted in the discussion of Issue No. 2, these factors would not be necessary if switched access traffic were carried over a FGD trunk group, as opposed to a LIS trunk group. There is simply no reason to go to a system of factors and the difficulties they present, when a workable solution to combining all traffic on a single trunk group already exists. In addition, the existing FGD solution is superior to Level 3's proposal in that it relies on actual traffic information to determine accurate jurisdiction of recorded calls, not estimates which may, or may not, be accurate and at the very least will require continual updating. Further, as there is no industry standard method of determining IP-enabled services at this time, the PIPU factor proposed by Level 3 is unverifiable by Qwest, and includes traffic that does not conform to the definition of VOIP proposed by Qwest and discussed in Mr. Brotherson's testimony. Finally, as discussed previously, the system of factors proposed by Level 3 does not allow for the creation of jointly provided access

records which are relied upon by CLECs and LECs who terminate jointly provided switched access traffic.

IX. DISPUTED ISSUE NO. 21: ORDERING OF INTERCONNECTION TRUNKS

Q. PLEASE EXPLAIN THE NATURE OF THE DISPUTE AROUND THIS ISSUE.

A. Issue No. 21 concerns language that Level 3 is attempting to insert in Section 7.4 of the agreement which discusses the ordering of local interconnection service.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 is proposing to insert the following language into Section 7.4:

> 7.4.1.1 Nothing in this Section 7.4 shall be construed to in any way affect the Parties' respective obligations to pay each other for any activities or functions under this Agreement. All references in this Section 7.4 to 'ordering' shall be construed to refer only to the administrative processes needed to establish interconnection and trunking arrangements and shall have no effect on either Party's financial obligations to the other.

Q. WHY IS QWEST OPPOSED TO THE INSERTION OF THIS LANGUAGE?

A. In addition to the fact that Qwest disagrees with Level 3's contention that it has no financial obligation on Qwest's side of the POI, Level 3's language is misplaced. Section 7.4 of the agreement has to do with the ordering of local interconnection

service and does not address allocation of responsibility for the cost of interconnection.

Level 3's proposed Section 7.4.1.1 only underscores why its position on allocation of the costs of interconnection is wrong. The fact that Level 3 requests (or orders) facilities on Qwest's side of the network demonstrates that the interconnection is done for Level 3's benefit. Level 3 makes requests for Qwest facilities on Qwest's side of the point of interconnection so that Level 3 can serve its own ISP customers.

Section 7.4.1.1 is simply unnecessary. The Commission will determine who pays the costs of interconnection in the Sections of the Agreement that are related to Issue No. 1. Accordingly, since nothing in Section 7.4 requires Level 3 to pay interconnection costs, Level 3's proposed Section 7.4.1.1 should be rejected.

X. DISPUTED ISSUE NO. 22: COMPENSATION FOR SPECIAL CONSTRUCTION

Q. PLEASE EXPLAIN ISSUE NO. 22.

A. Issue No. 22 has to do with construction charges and whether Level 3 is responsible for charges related to special construction that it requests on the

Qwest side of the POI. Level 3 proposes to insert language stating that it has no obligation for construction on the Qwest side of the POI.

Q. WHAT IS THE LANGUAGE THAT LEVEL 3 PROPOSES TO INSERT?

A. Level 3 proposes to insert the following language:

> 19.1.1. Nothing in this Section 19 shall be construed to in any way affect the Parties' respective obligations to pay each other for any activities or functions under this Agreement. All references in this Section 19 to construction charges be construed to refer only to those Level 3 requests for construction that are outside the scope of what is needed to establish interconnection and trunking arrangements and shall have no effect on either Party's financial obligations to the other.

Q. WHY IS QWEST OPPOSED TO THIS LANGUAGE?

A. Level 3's proposed language again underscores the unreasonableness of Level 3's position that it should not have to pay any of the interconnection costs Qwest incurs on its side of the point of interconnection. When Level 3 requests that Qwest build additional facilities for network interconnection, these costs are incurred to benefit Level 3 and Level 3's ISP end user customers. If Level 3 and its ISP end user customers are benefiting by the additional cost for building facilities, Qwest should not bear that cost. Under the Act, Qwest is entitled to just and reasonable compensation for the costs it incurs.

XI. SUMMARY/CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Despite the long list of issues, subparts and dueling language discussed in this testimony, ultimately everything can be boiled down to just two issues: 1) compensation for interconnection services provided by Qwest and; 2) the types of traffic that may be combined on interconnection trunks.

The law is very clear when it comes to compensation for the interconnection services Qwest provides. Under the Telecommunications Act of 1996, Qwest has a duty to provide interconnection with its local exchange network "on rates, terms and conditions that are just, reasonable, and nondiscriminatory" and in accordance with the requirements of Section 252 of the Act.[8] Section 252 of the Act in turn provides that determinations by a state commission of the just and reasonable rate for the interconnection shall be "based on the cost...of providing the interconnection," "nondiscriminatory" and "may include a reasonable profit."[9] Despite the law, and despite the fact that Level 3 is ordering interconnection services so that it can serve its customers, Level 3 boldly claims that it has no obligation to compensate Qwest for these services. This assertion flies in the face of reason and should be soundly rejected by this Commission.

---

[8] 47 U.S.C. §251(c)(2)(D).

As to the types of traffic that can be carried on interconnection trunk groups, Qwest has attempted to be responsive to Level 3's desire to combine traffic on trunk groups. Qwest is willing to allow all traffic types, with the exception of switched access traffic, to be carried over LIS trunks. Because of billing issues, systems issues and Qwest's obligation to provide jointly provided switched access records to other ILECs, CLECs and WSPs, Qwest requires that switched access traffic be carried over Feature Group trunks. This is entirely consistent with Section 251(g) of the Act which requires that Qwest provide interconnection for the exchange of switched access traffic in the same manner that it provided for such traffic prior to the passage of the Act. Nonetheless, Qwest has attempted to accommodate Level 3's desire for network efficiencies by agreeing to let Level 3 combine all of its traffic over Feature Group D trunks. This solution achieves the efficiencies sought by Level 3 while at the same time allowing Qwest to continue to use its existing billing systems and processes. For these reasons, Level 3's proposed combining of traffic on LIS trunks should be rejected.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

---

[9] 47 U.S.C. §252(d)(1)

EXHIBIT
Q4
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
MARC SPITZER
Commissioner
WILLIAM A. MUNDELL
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	Docket No. T-03654A-05-0350 T-01051B-05-0350

REBUTTAL TESTIMONY OF WILLIAM R. EASTON

ON BEHALF OF

QWEST CORPORATION

(Disputed Issue Nos. 1, 2, 5, 13, 17, 18, 21 and 22)

AUGUST 15, 2005

TABLE OF CONTENTS

I.	IDENTIFICATION OF WITNESS	1
II.	PURPOSE OF TESTIMONY	1
III.	DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION	2
IV.	DISPUTED ISSUE NO. 2: COMBINING TRAFFIC ON INTERCONNECTION TRUNKS	12
V.	DISPUTED ISSUE NO. 5: SHOULD INTERCONNECTION TERMS BE INCORPORATED BY REFERENCE	15
VI.	DISPUTED ISSUE NO. 13: LOCAL INTERCONNECTION SERVICE DEFINITION	15
VII.	DISPUTED ISSUE NO. 17: TRUNK FORECASTING	16
VIII.	DISPUTED ISSUE NO. 18: JURISDICTIONAL ALLOCATION FACTORS	16
IX.	DISPUTED ISSUE NO. 21: ORDERING OF INTERCONNECTION TRUNKS	18
X.	DISPUTED ISSUE NO. 22: COMPENSATION FOR CONSTRUCTION	18
XI.	SUMMARY/CONCLUSION	19

I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is William R. Easton. My business address is 1600 7th Avenue, Seattle Washington. I am employed as Director – Wholesale Advocacy. I am testifying on behalf of Qwest Corporation ("Qwest").

Q. ARE YOU THE SAME WILLIAM EASTON WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to respond to the Level 3 testimony of Mr. Gates and Mr. Ducloo. Specifically I reply to the Level 3 testimony as it relates to the following disputed issues:

- Issue 1: Costs of Interconnection
- Issue 2: Combining Traffic on Interconnection Trunks
- Issue 5: Should Interconnection Terms be Incorporated by Reference

- Issue 13: Local Interconnection Service Definition
- Issue 17: Trunk Forecasting
- Issue 18: Jurisdictional Allocation Factors
- Issue 21: Ordering of Interconnection Trunks
- Issue 22: Compensation for Construction

III. DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION

Q. IN DISCUSSING THE COSTS OF INTERCONNECTION AT PAGE 6 OF HIS TESTIMONY, MR. GATES CLAIMS THAT QWEST'S NETWORK ARCHITECTURE "DOES NOT REMOTELY REFLECT WHAT AN EFFICIENT FIRM WOULD CONSTRUCT TODAY." PLEASE COMMENT.

A. Mr. Linse addresses Mr. Gates allegations from a network perspective. From a policy perspective, and from the perspective of the issues that must be resolved by this Commission, it is irrelevant which company has the more or less efficient network. Issue 1 raises the question of which party is responsible for the costs of interconnection. Embedded in this question is the assumption that interconnection to Qwest's network, regardless of its alleged state of technological obsolescence, is valuable to Level 3. My direct testimony and the direct testimony of Mr. Linse

explain that Qwest offers Level 3 a number of different options for interconnection and allows Level 3 to select the option that best meets its needs, given its business strategy, its own network configuration and its desire to interconnect with the Qwest network. The costs related to each of these options have been identified, discussed and determined by this Commission in various cost dockets. There is no question that, under the Act, Qwest is allowed to recover costs that are just and reasonable and based on the cost of providing service.

Q. ON PAGE 14 OF HIS TESTIMONY MR. GATES STATES THAT THE POINT OF INTERCONNECTION (POI) IS NORMALLY VIEWED AS THE FINANCIAL AND PHYSICAL DEMARCATION POINT THAT DEFINES WHERE ONE PARTY'S FINANCIAL AND OPERATIONAL OBLIGATIONS END AND THE OTHER PARTY'S BEGIN. DO YOU AGREE?

A. No. The POI is clearly the physical demarcation point between the parties' networks, but it is not necessarily the demarcation point from a financial perspective. Whether Level 3 will incur expense on Qwest's side of the POI will depend on the form of interconnection Level 3 chooses. As Mr. Linse explained in his testimony, the POI is merely the point at which the two networks meet, but by itself it does not establish interconnection. If, for example Level 3 requires an entrance facility to bring its traffic from the POI to the Qwest switch, it will be required to pay for its use of that facility as provided in the FCC's rule 51.709(b), which states:

> The rate of a carrier providing transmission facilities dedicated to the transmission of traffic between two carriers' networks shall recover only the costs of the proportion of that trunk capacity used by an interconnecting carrier to send traffic that will terminate on the providing carrier's network. Such proportions may be measured during peak periods.

Clearly the FCC rules allow for Qwest to be compensated for the use of facilities on its side of the POI.

Q. AT PAGE 14 OF HIS TESTIMONY, MR. GATES STATES THAT FCC RULE 51.703(B) REQUIRES THAT EACH CARRIER BE RESPONSIBLE FOR THE COSTS OF ITS OWN NETWORK ON ITS SIDE OF THE POI. IS THAT A CORRECT INTERPRETATION OF 51.703(B) ?

A. No. Rule 51.703(b) states that, "A LEC may not assess charges on any other telecommunications carrier for *telecommunications traffic that originates on the LECs network."* (Italics added). This rule pertains only to the costs associated with telecommunications traffic originated by a local exchange carrier. It certainly does not state that each carrier is responsible for the costs on its side of the POI, as Mr. Gates has suggested.

Q. MR. GATES DISCUSSES "MEET POINT" INTERCONNECTION ON PAGES 47 AND 48 AND STATES THAT THE FCC HAS RECOGNIZED THAT WITH THIS TYPE OF ARRANGEMENT "EACH PARTY IS RESPONSIBLE FOR ITS OWN

COSTS IN GETTING TO A MEET POINT." IS THIS AN ISSUE AT DISPUTE IN THIS ARBITRATION?

A. No. As I discussed in my direct testimony, section 7.1.2.3 of the agreement allows for Mid-Span Meet POI interconnection,[1] which would involve Qwest and Level 3 each building facilities to the meet point and each being responsible for its own costs. This form of interconnection does not require entrance facilities.

Q. WHAT THEN, IS THE CONFUSION?

A. Mr. Gates seems to confuse establishing a Mid-Span Meet POI with another form of interconnection that does require entrance facilities. The relative use (RUF) calculations, which apply to an entrance facility purchased from Qwest, do not apply to a Mid-Span Meet Point of Interconnection. Section 7.1.2.3 states that, under this latter option, "[e]ach Party will be responsible for its portion of the build to the Mid-Span Meet POI." Thus, to the extent that Level 3 seeks to avoid financial responsibility for entrance facilities provided by Qwest, it is free, under this agreement, to select the Mid-Span Meet POI option and avoid charges based on the RUF calculation.

Q. ON PAGE 48 MR. GATES STATES THAT "...QWEST WILL TRY TO ASSIGN SOME OF THE COSTS OF ITS OWN NETWORK ON ITS SIDE OF THE POI TO

---

[1] *Local Competition Order,* ¶ 553 cited by Mr. Gates refers to "meet point arrangements (or mid-span meets)."

LEVEL 3, BASED IN SOME WAY ON THE AMOUNTS OF TRAFFIC THAT QWEST SENDS LEVEL 3 AND VICE VERSA. THAT IS UNREASONABLE IN AND OF ITSELF." IS QWEST BEING UNREASONABLE?

A. No. Qwest is merely complying with FCC rule 51.709(b) cited earlier, which allows for cost recovery in proportion to the parties' usage of the facilities. If Level 3 uses a Qwest facility, it is entirely reasonable for Qwest to be compensated for network capacity used by Level 3 to transmit traffic that will terminate on the Qwest network. I would add that Mr. Gates' testimony is also at odds with the testimony of Mr. Ducloo who states on pages 7-8 of his direct testimony that "the parties agree that the cost of facilities used to connect their networks will be split based on relative use."

Q. ON PAGE 48 OF HIS TESTIMONY MR. GATES ALLEGES THAT QWEST IS SEEKING TO "UNFAIRLY AND UNREASONABLY" EXCLUDE ISP-BOUND TRAFFIC THAT IT SENDS LEVEL 3 FROM THE RELATIVE USE CALCULATION. AT PAGE 8 OF HIS TESTIMONY MR. DUCLOO CHARGES THAT REMOVING ISP-BOUND TRAFFIC FROM THE CALCULATION IS A "SLEIGHT OF HAND." PLEASE COMMENT.

A. Although Mr. Gates argues that "there is no basis for excluding ISP-bound traffic from any RUF calculation," in a 2003 arbitration between Qwest and AT&T Communications, the Commission ruled that internet related traffic should be

excluded when determining relative use.[2] Given the Commission's previous ruling on this issue, Qwest's proposal to exclude this traffic is neither "unreasonable" nor accomplished by a "sleight-of-hand."

Q. MR. GATES STATES THAT EXCLUDING THE ISP-BOUND TRAFFIC IS CONTRARY TO THE ECONOMIC RULE OF COST CAUSATION. DO YOU AGREE?

A. No. In a previous arbitration between Level 3 and Qwest, the Colorado Commission directly addressed the issue of cost causation, stating:

> When connecting to an ISP served by a CLEC, the ILEC end-user acts primarily as the customer of the ISP, not as a customer of the ILEC. The end-user should pay the ISP; the ISP should charge the cost-causing end-user. The ISP should compensate both the ILEC (Qwest) and the CLEC (Level 3) for costs incurred in originating and transporting the ISP-bound call. Therefore, we agree with Qwest that Internet related traffic should be excluded when determining relative use of entrance facilities and direct trunked transport.[3]

---

[2] *In the Matter of Petition of AT&T Communications of the Mountain States, Inc. and TCG Phoenix, for Arbitration With Qwest Corporation, Inc. Pursuant to 47 U.S.C.Section 252(b).* Docket No. T-02428A-03-0553. (Arizona Corporation Commission, December 17, 2003).

[3] *In the Matter of Petition of Level 3 Communications LLC, for Arbitration Pursuant to§ 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement With Qwest Corporation.* Docket No.00B-601T. (Colorado PUC, March 16, 2001), p. 36.

Q. HOW DO YOU RESPOND TO MR. GATE'S CLAIMS AT PAGE 51 OF HIS TESTIMONY THAT QWEST IS ATTEMPTING TO SHIFT ITS OWN NETWORK COSTS TO LEVEL 3?

A. The reality is that it is Level 3 who is attempting to shift costs. As the Colorado Commission noted in the order just cited, it is Level 3 who is attempting to shift the cost of providing service to its ISP customers to Qwest. Consistent with the Commission's previous ruling on this issue, these costs should not be borne by Qwest.

Q. AT PAGE 51 OF HIS TESTIMONY MR. GATES STATES THAT UNDER FCC RULE 51.703(B) QWEST HAS AN OBLIGATION TO COMPENSATE LEVEL 3 FOR ALL CALLS WHICH ORIGINATE ON QWEST'S NETWORK. DO YOU AGREE?

A. No. Clearly, under the FCC's rules Qwest has an obligation to compensate Level 3 for "telecommunications traffic" that originates on its network. The ISP-bound traffic in question here, however, has been defined as "information access" by the FCC and, as such, is explicitly excluded from the FCC's definition of telecommunications traffic.[4]

1 **Q. HAVE FEDERAL COURTS REVIEWED THE ISSUE OF EXCLUDING ISP**
2 **BOUND TRAFFIC?**

3 A. Yes. Qwest's language and position have been subject to federal court review in
4 both Oregon and Colorado, and both courts upheld Qwest's language.[5] Judge
5 Nottingham of the United States District Court for the District of Colorado recently
6 addressed this issue and affirmed that Qwest's language accurately reflects the
7 law. In particular, Judge Nottingham held that the rules that relate to relative use,
8 47 C.F.R. §§ 703(b) and 709(b), apply only to "telecommunications traffic" and,
9 under the unambiguous terms of the *ISP Remand Order*, Internet-bound traffic is
10 not "telecommunications traffic."[6] He further held that because Internet-bound
11 traffic is not "telecommunications traffic," Rule 709(b) is inapplicable and the
12 Colorado commission properly excluded Internet-bound traffic from the relative use
13 provisions of the parties' interconnection agreement.[7] Moreover, Judge
14 Nottingham upheld the Colorado commission's policy determinations, the same
15 policy determinations the FCC made in the *ISP Remand Order* and that Qwest

---

[4] FCC rule 51.701(b)(1) defines "telecommunications traffic" as traffic "exchanged between a LEC and a telecommunications carrier other than a CMRS provider, *except for telecommunications traffic that is interstate or intrastate exchange access, information access, or exchange services for such access.*" (Italics added).

[5] Order and Memorandum of Decision, *Level 3 Communications, LLC v. Pub. Utils. Comm'n of Colorado, Civil Action No. 01-N-2455 (CBS)* (D. Colo. Dec. 8, 2003) ("*Colorado Level 3 Order and Memorandum of Decision*"); Opinion and Order, *Level 3 Communications, LLC v. Public Utils. Comm'n of Oregon*, CV 01-1818 (D. Or. Nov. 25, 2002) (slip op.).

[6] *See Colorado Level 3 Order and Memorandum of Decision* at 23.

[7] *Id.* at 22.

relies upon here: that costs of serving ISPs should be absorbed by ISPs, not Qwest and its customers.[8]

Q. ON PAGE 47 MR. GATES STATES THAT THE FCC'S *TRIENNIAL REVIEW REMAND ORDER* HELD THAT ENTRANCE FACILITIES ARE "NO LONGER TO BE PROVIDED – AT LEAST AT TELRIC-BASED RATES." IS THIS YOUR UNDERSTANDING AS WELL?

A. No. My understanding is that the FCC determined that ILECs were no longer required to make unbundled elements available for use as entrance facilities. As the proposed language in the interconnection agreement makes clear, Qwest continues to offer entrance facilities as an interconnection option. These entrance facilities are offered at TELRIC rates.

Q. AT PAGE 25 MR. GATES REFERS TO PARAGRAPH 995 OF THE FCC'S LOCAL COMPETITION ORDER, STATING THAT ONCE A POI IS ESTABLISHED IT CAN BE USED FOR THE EXCHANGE OF ALL TYPES OF TRAFFIC. IS THIS AN ACCURATE DESCRIPTION OF PARAGRAPH 995.

A. No. Mr. Gates refers to only a portion of the paragraph. The full text of paragraph 995 reads as follows:

> We conclude that, if a company provides both telecommunications and information services, it must be classified as a telecommunications carrier for purposes of section 251, and is subject to the obligations under section 251(a) to the extent that it is acting as a telecommunications carrier. We also

---

[8] *Id.* at 25.

> conclude that telecommunications carriers that have interconnected or gained access under sections 251(a)(1), 251(c)(2), or 251(c)(3), may offer information services through the same arrangement, so long as they are offering telecommunications services through the same arrangement as well. Under a contrary conclusion, a competitor would be precluded from offering information services in competition with the incumbent LEC under the same arrangement, thus increasing the transaction cost for the competitor. We find this to be contrary to the pro-competitive spirit of the 1996 Act. By rejecting this outcome we provide competitors the opportunity to compete effectively with the incumbent by offering a full range of services to end users without having to provide some services inefficiently through distinct facilities or agreements. *In addition, we conclude that enhanced service providers that do not also provide domestic or international telecommunications, and are thus not telecommunications carriers within the meaning of the Act, may not interconnect under section 251.* (Italics added).

It is clear that telecommunications carriers are allowed to interconnect and, having done so, may carry both information services and telecommunications services. It is also clear that companies that do not provide telecommunications services are not entitled to interconnect under section 251. What is not clear is whether Level 3 has any end-user telecommunications customers, which raises the question of whether it is in fact a telecommunications carrier or an enhanced service provider.

Q. DO YOU HAVE ANY OTHER COMMENTS ON THE LEVEL 3 TESTIMONY ON ISSUE NO. 1?

A. Yes. As I explained in my direct testimony and as Level 3 details in the matrix of disputed issues, Issue Number 1 is comprised of 10 subparts. It is worth noting that, other than the high level discussion about points of interconnection, compensation on each parties' side of the POI and the RUF calculation, to which I

have just responded, Level 3 has offered neither detailed objections to Qwest's proposed language nor an explanation of why Level 3's language is appropriate.

IV. DISPUTED ISSUE NO. 2: ALL TRAFFIC ON INTERCONNECTION TRUNKS

Q. AT PAGE 7 OF HIS TESTIMONY MR. GATES STATES THAT QWEST WANTS LEVEL 3 TO SEPARATE TRAFFIC AND ROUTE IT OVER DIFFERENT TRUNK GROUPS BASED ON WHETHER THE TRAFFIC FALLS INTO "ARBITRARY" CATEGORIES. IS THIS WHAT QWEST IS PROPOSING?

A. No. First, the "arbitrary" categories to which Mr. Gates refers are anything but arbitrary. These categories (e.g. local vs. switched access) have long been established and maintained by telecommunications companies and regulators alike. Each category has its own well recognized intercarrier compensation mechanism.

More importantly, Qwest does allow all traffic types to be combined on a single trunk group. Qwest's proposed language in section 7.2.2.9.3.2 of the agreement allows for the combining of traffic over the same Feature Group D (FGD) trunk. But, as I explained in my direct testimony, Qwest is not able to allow local and switched access traffic to be combined over LIS trunks because LIS trunks are not

capable of producing records for the billing of switched access. In addition to the system changes necessary to create Jointly Provided Switched Access records from LIS trunks, there are extensive billing changes that have the potential to be extremely expensive to implement. There are also potential network changes and multiple process changes required to reflect the changed manner in which LIS trunks will be used. Finally, Level 3's proposal would necessitate a change in Qwest's access tariffs which spell out how switched access is ordered, provisioned and billed today.

Combining all traffic over FGD would allow for the efficiencies Level 3 claims it is seeking while allowing Qwest to use its existing processes and access tariffs for billing the appropriate tariffed rates for switched access and producing the necessary jointly provided switched access records used by other ILECs, CLECs and wireless carriers.

Q. ON PAGE 30 OF HIS TESTIMONY MR. GATES SPECULATES THAT QWEST'S TRUNKING PROPOSAL APPEARS TO BE DESIGNED TO "DISADVANTAGE OR DRIVE ITS COMPETITORS FROM THE MARKET PLACE." PLEASE COMMENT.

A. Qwest's trunking proposal here is entirely consistent with what Qwest has offered every other carrier and with what the Commission has approved in numerous ICA's. Despite Mr. Gate's heated speculation, the accurate and more rational

explanation is that Qwest has offered Level 3 a solution that allows Qwest to use the tariffs, processes and systems it has in place and avoid significant investment in systems and processes to meet the demands of a single carrier.

Q. ON PAGE 45 OF HIS TESTIMONY MR. DUCLOO OFFERS THAT LEVEL 3 WILL SEND TOLL TRAFFIC THAT DOESN'T TERMINATE TO QWEST END USERS OR UNE/RESALE CUSTOMERS TO QWEST TOLL TANDEMS WHERE ADEQUATE RECORDINGS FOR THE 3RD PARTIES CAN BE MADE. DOES THIS ALLEVIATE QWEST'S CONCERNS ABOUT THE USE OF FACTORS FOR BILLING?

A. No. It does not reduce the systems changes required of Qwest to apply the factors, and the appropriate tariffed rates, to traffic on LIS trunks. Nor does it eliminate the issue of the 3rd parties need for Jointly Provided Switched Access records. It also does not remove the need for Qwest to modify its state and federal access tariffs to allow for this new way of ordering, provisioning and billing switched access service. I would also note that the proposed agreement filed by Level 3 does not include language that describes how traffic destined to non-Qwest end users will be handled. Thus there is no language for the Commission to consider regarding this.

V. DISPUTED ISSUE NO. 5: SHOULD INTERCONNECTION TERMS BE INCORPORATED BY REFERENCE

Q. IN DISCUSSING ISSUE NO. 5 ON PAGE 9 OF HIS TESTIMONY, MR. GATES STATES THAT IT IS LARGELY "LEGAL" IN NATURE. PLEASE COMMENT.

A. There is apparently still confusion around this issue. Qwest's response to the Level 3 Petition for Arbitration and my direct testimony explain that Qwest is not proposing to incorporate SGAT language into the interconnection agreement by reference. The SGAT language was cited in the contract negotiation template as a means to highlight the fact that state-specific language was to be a part of the proposed language for the states cited. The appropriate proposed language has been included in the interconnection agreement filed with Qwest's reply to the Level 3 request for arbitration. Level 3 has yet to state whether this explanation allows for the closure of this issue or whether it is objecting to the proposed language.

VI. DISPUTED ISSUE NO. 13: LOCAL INTERCONNECTION SERVICE DEFINITION

Q. DID LEVEL 3 FILE ANY TESTIMONY SPECIFICALLY RELATED TO THE DEFINITION OF LOCAL INTERCONNECTION SERVICE?

A. No.

VII. DISPUTED ISSUE NO. 17: TRUNK FORECASTING

Q. DID LEVEL 3 FILE ANY TESTIMONY SPECIFICALLY RELATED TO TRUNK FORECASTING?

A. No.

VIII. DISPUTED ISSUE NO. 18: JURISDICTIONAL ALLOCATION FACTORS

Q. AT PAGE 28 OF HIS TESTIMONY MR. GATES ARGUES THAT THE USE OF BILLING FACTORS IS A SIMPLE, INEXPENSIVE WAY TO RESOLVE BILLING ISSUES RELATED TO ALLOWING ALL TRAFFIC TYPES ON A LIS TRUNK GROUP. DO YOU AGREE?

A. No. Changing Qwest systems to allow for the use of factors is not a trivial matter and would require Qwest to significantly rework its systems and processes. In addition, Level 3's factor proposal relies on estimates of traffic, based on periodic sampling, rather than recordings of actual traffic information, which is a clearly superior method and is what Qwest is able to use today. There is simply no need to go through a process of developing estimates when there is already a system in place (FGD) that does this based on actual traffic recording.

1 **Q. AT PAGE 43 OF HIS TESTIMONY MR. DUCLOO ARGUES THAT QWEST**
2 **ALREADY USES FACTORS TO DETERMINE HOW MANY MINUTES ARE**
3 **SUBJECT TO ACCESS CHARGES AND HOW MANY ARE SUBJECT TO**
4 **RECIPROCAL COMPENSATION. IS HE CORRECT?**
5 A. No. Mr. Ducloo apparently misunderstands how Qwest uses the Percent Local
6 Usage (PLU). The PLU is used only with traffic that does not contain a calling
7 party number and cannot be jurisdictionalized based on a comparison of the calling
8 and called parties' numbers. In these situations, the PLU is applied to the bucket
9 of these "unidentified" calls to determine what percent should be billed at the local
10 rate. These calls represent a small minority of the total. The jurisdiction for all
11 other calls is based on a comparison of the calling and called parties' numbers.
12
13 **Q. IT APPEARS THAT THE LEVEL 3 PROPOSED LANGUAGE REQUIRES**
14 **QWEST TO PROVIDE FACTORS TO LEVEL 3. ARE SUCH FACTORS**
15 **NECESSARY?**
16 A. No. Qwest believes that Level 3 is able to bill accurately today. Level 3 provides
17 no reasons why Qwest provided factors will be necessary in the future.
18
19 **Q. DO YOU HAVE ANY ADDITIONAL COMMENT ON LEVEL 3'S PROPOSED**
20 **FACTORS?**

A. Yes. Level 3's proposed language does not include a factor for intrastate toll traffic. It is unclear to Qwest how this type of traffic would be handled under Level 3's proposal.

IX. DISPUTED ISSUE NO. 21: ORDERING OF INTERCONNECTION TRUNKS

Q. DID LEVEL 3 FILE ANY TESTIMONY SPECIFICALLY RELATED TO THE ORDERING OF INTERCONNECTION TRUNKS?

A. No.

X. DISPUTED ISSUE NO. 22: COMPENSATION FOR SPECIAL CONSTRUCTION

Q. DID LEVEL 3 FILE ANY TESTIMONY SPECIFICALLY RELATED TO COMPENSATION FOR SPECIAL CONSTRUCTION?

A. No.

XI. SUMMARY/CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Despite the pages and pages of contract language at dispute in the arbitration, Level 3 has failed to file testimony on the contract language itself, offering neither detailed objections to Qwest's language nor explanations of why its language is appropriate. Instead, Level 3 offers high level philosophical discussion, inaccurate interpretations of FCC rules based on fragments taken out of context, and repeated claims that Qwest is unreasonable, backward-thinking and should somehow be punished for the fact that it was once a regulated monopoly. However, the determination of the appropriate language for the interconnection agreement must be based on the language of the Act, the FCC rules implementing the Act, this Commission's own rulings and commonsense, not on rhetoric.

In its proposed interconnection agreement Qwest offers Level 3 several different options for interconnecting with the Qwest network. These options have been identified and discussed with this Commission in various cost dockets and have been approved by this Commission. Despite Level 3's denials, there is no question that under the Act, Qwest is allowed to recover costs that are just and reasonable and based on the cost of providing interconnection. Indeed, it only makes sense that Qwest be allowed to charge for network capacity used by Level 3 to send traffic that will terminate on the Qwest network.

In this arbitration, Level 3 has raised objections to the concept of a relative usage calculation and specifically to Qwest's proposal to exclude ISP-bound traffic from the calculation These objections are misplaced, as the FCC has specifically provided for compensation based upon the relative usage of the parties and this Commission has specifically ruled that ISP-bound traffic should be excluded from the relative use calculation.

Finally, Level 3 mischaracterizes Qwest's trunking options, stating that Qwest refuses to allow it to combine all traffic on a single trunk group. Level 3 fails to acknowledge that Qwest has agreed to allow the combining of all traffic over FGD trunks. This proposal allows for the efficiencies Level 3 claims it is seeking while allowing Qwest to use existing tariffs, processes and systems to bill appropriate rates for switched access and producing jointly provided switched access records. This proposal also has the benefit of using actual recordings of traffic for billing purposes, rather than using estimated factors as Level 3 proposes.

For all of these reasons, Qwest respectfully requests that the Commission approve and adopt Qwest's language as it relates to these issues.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	**DOCKET NO. T-03654A-05-0350** **T-01051B-05-0350**
STATE OF WASHINGTON **COUNTY OF KING**	)	**AFFIDAVIT OF WILLIAM R. EASTON**
	:	**SS**

William R. Easton, of lawful age being first duly sworn, depose and states:

1. My name is William R. Easton. I am Director – Wholesale Advocacy for Qwest Corporation in Seattle, Washington. I have caused to be filed written rebuttal testimony in Docket No. T-03654A-05-0350, T-01051B-05-0350.

2. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.

Further affiant sayeth not.

William R. Easton

SUBSCRIBED AND SWORN to before me this 8th day of August, 2005.

LORI L. WHITE
COMMISSION EXPIRES
NOTARY
PUBLIC
7-10-07
STATE OF WASHINGTON

Notary Public

My Commission Expires: 7/10/07

EXHIBIT
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
MARC SPITZER
Commissioner
WILLIAM A. MUNDELL
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	Docket No. T-03654A-05-0350 T-01051B-05-0350

DIRECT TESTIMONY OF PHILIP LINSE

ON BEHALF OF

QWEST CORPORATION

(Disputed Issue Nos. 1, 2, 6, 8, AND 20)

JULY 15, 2005

TABLE OF CONTENTS

I. IDENTIFICATION OF WITNESS 1

II. PURPOSE OF TESTIMONY 2

III. DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION 3

IV. DISPUTED ISSUE NO. 2: ALL TRAFFIC ON INTERCONNECTION TRUNKS 26

V. DISPUTED ISSUE NO. 6: AMA SWITCH TECHNOLOGY 34

VI. DISPUTED ISSUE NO. 8: DEFINITION OF CALL RECORD 35

VII. DISPUTED ISSUE NO. 20: SIGNALING PARAMETERS 42

VIII. SUMMARY/CONCLUSION 50

I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH QWEST CORPORATION.

A. My name is Philip Linse. My business address is 700 West Mineral Avenue, Littleton Colorado. I am employed as Director – Technical Regulatory in the Policy Organization. I am testifying on behalf of Qwest Corporation ("Qwest").

Q. PLEASE GIVE A BRIEF BACKGROUND OF YOUR EDUCATIONAL AND TELEPHONE COMPANY EXPERIENCE.

A. I received a Bachelors degree from the University of Northern Iowa in 1994. I began my career in the telephone communications industry in 1995 when I joined the engineering department of CDI Telecommunications in Missoula, Montana. In 1998, I accepted a position with Pacific Bell as a Technology Planner with responsibility for analyzing network capacity. In 2000, I accepted a position with U S WEST as a Manager, Tactical Planning. In 2001, I was promoted to a staff position in Technical Regulatory Interconnection Planning for Qwest. In this position, I developed network strategies for interconnection of unbundled Switching, Signaling System 7 ("SS7") and other switching-related products. My responsibilities also included the development of network strategies based on the evaluation of new technologies. I was one of the network organization's subject matter experts. In 2003, I was promoted to my current position as Director of Technical Regulatory in the Network organization. Since my promotion in 2003, the

1 Technical Regulatory group has been realigned and is now part of the Policy organization.
2 In addition to my oversight responsibilities of Qwest's network regulatory interconnection
3 and switching requirements for sections 251 and 252 of the Telecommunications Act of
4 1996, I also develop and direct the implementation of network policies. In addition to
5 these internal functions, I also represent Qwest in industry technical standards setting
6 groups such as the FCC's Network Reliability and Interoperability Council ("NRIC") and
7 the Network Interconnection Interoperability Forum ("NIIF").

8 **II. PURPOSE OF TESTIMONY**

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. The purpose of my testimony is to detail Qwest's positions, from a technical perspective, as
11 they relate to certain disputed issues between the parties. My testimony will show that the
12 Qwest position on these issues is reasonable, appropriate and more than adequately
13 provides for the interconnection needs of Level 3. Specifically, my testimony will address
14 the following issues from the Matrix of Unresolved Issues filed by Level 3 in this
15 arbitration:

16 - Issue 1: Costs of Interconnection
17 - Issue 2: Combining Traffic on Interconnection Trunks
18 - Issue 6: AMA and Switch Technology
19 - Issue 8: Definition of Call Record

1 ▪ Issue 20: Signaling Parameters

2 In portions of my testimony that follow, where the disputed language is similar but contain
3 modifications to Qwest's language, I have underlined the language that Level 3 wishes to
4 delete or add.

5 **III. DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION**

6 **Issue No. 1A**

7 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1A.**

8 A. Issue 1A involves disputed language regarding points of interconnection. Level 3
9 mischaracterizes the issue as having to do with its right to interconnect at a single point in
10 the LATA and Qwest's obligation on its side of the Point of Interconnection ("POI").
11 However, Qwest believes that the POI is not the real issue here. The real issue is whether
12 Qwest should be required to provide interconnection where it is not technically feasible or
13 to provision/build transport facilities to Level 3 without compensation for the
14 provisioning/building of such transport facilities. As such, the real issue here is one of
15 Level 3 not wanting to compensate Qwest for the use of its network. Whereas my
16 testimony addresses Issue 1A from a technical perspective, the testimony of Mr. Easton
17 will more fully address compensation issues and why Level 3 is required to compensate
18 Qwest for interconnection facilities provided by Qwest.

19 **Q. WHAT LANGUAGE DOES QWEST PROPOSE?**

20 A. Qwest proposes the following language:

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Exchange Service (EAS/Local traffic), Exchange Access (IntraLATA Toll carried solely by local exchange carriers), ISP-Bound traffic, and Jointly Provided Switched Access (InterLATA and IntraLATA) traffic. Qwest will provide Interconnection at any Technically Feasible point within its network. Interconnection, which Qwest currently names "Local Interconnection Service" (LIS), is provided for the purpose of connecting End Office Switches to End Office Switches or End Office Switches to local or Access Tandem Switches for the exchange of Exchange Service (EAS/Local traffic); or End Office Switches to Access Tandem Switches for the exchange of Exchange Access (IntraLATA Toll carried solely by local exchange carriers) or Jointly Provided Switched Access traffic. Qwest Tandem Switch to CLEC Tandem Switch connections will be provided where Technically Feasible. New or continued Qwest local Tandem Switch to Qwest Access Tandem Switch and Qwest Access Tandem Switch to Qwest Access Tandem Switch connections are not required where Qwest can demonstrate that such connections present a risk of Switch exhaust and that Qwest does not make similar use of its network to transport the local calls of its own or any Affiliate's End User Customers.

7.1.1.1 CLEC agrees to allow Qwest to conduct operational verification audits of those network elements controlled by CLEC and to work cooperatively with Qwest to conduct an operational verification audit of any other provider that CLEC used to originate, route and transport VoIP traffic that is delivered to Qwest, as well as to make available any supporting documentation and records in order to ensure CLEC's compliance with the obligations set forth in the VoIP definition and elsewhere in this Agreement. Qwest shall have the right to redefine this traffic as Switched Access in the event of an "operational verification audit failure". An "operational verification audit failure" is defined as: (a) Qwest's inability to conduct a post-provisioning operational verification audit due to insufficient cooperation by CLEC or CLEC's other providers, or (b) a determination by Qwest in a post-provisioning operational verification audit that the CLEC or CLEC's end users are not originating in a manner consistent with the obligations set forth in the VoIP definition and elsewhere in this Agreement.

7.1.1.2 Prior to using Local Interconnection Service trunks to terminate VoIP traffic, CLEC certifies that the (a) types of equipment VoIP end users will use are consistent with the origination of VoIP as defined in this Agreement; and (b) types of configurations that VoIP end users will use to originate calls using IP technology are consistent with the VoIP configuration as defined in this Agreement.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following:

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Telecommunications Including Telephone Exchange Service And Exchange Access traffic. Qwest will provide Interconnection at any Technically Feasible point within its network.

7.1.1.1 **Establishment of SPOI**: Qwest agrees to provide CLEC a Single Point of Interconnection (SPOI) in each Local Access Transport Area (LATA) for the exchange of all telecommunications traffic. The SPOI may be established at any mutually agreeable location within the LATA, or, at Level 3's sole option, at any technically feasible point on Qwest's network. Technically feasible points include but are not limited to Qwest's end offices, access tandem, and local tandem offices.

7.1.1.2 **Cost Responsibility.** Each Party is responsible for constructing, maintaining, and operating all facilities on its side of the SPOI, subject only to the payment of intercarrier compensation in accordance with Applicable Law. In accordance with FCC Rule 51.703(b), neither Party may assess any charges on the other Party for the origination of any telecommunications delivered to the other Party at the SPOI, except for Telephone Toll Service traffic outbound from one Party to the other when the other Party is acting in the capacity of a provider of Telephone Toll Service, to which originating access charges properly apply.

7.1.1.3 Facilities included/transmission rates. Each SPOI to be established under the terms of this Attachment shall be deemed to include any and all facilities necessary for the exchange of traffic between Qwest's and Level 3's respective networks within a LATA. Each Party may use an Entrance Facility (EF), Expanded Interconnect Channel Termination (EICT), or Mid Span Meet Point of Interconnection (POI) and/or Direct Trunked Transport (DTT) at DS1, DS3 , OC3 or higher transmission rates as, in that Party's reasonable judgment, is appropriate in light of the actual and anticipated volume of traffic to be exchanged. If one Party seeks to establish a higher transmission rate facility than the other Party would establish, the other Party shall nonetheless reasonably accommodate the Party's decision to use higher transmission rate facilities.

7.1.1.4 Each Party Shall Charge Reciprocal Compensation for the Termination of Traffic to be carried. All telecommunications of all types shall be exchanged between the Parties by means of from the physical facilities established at Single Point of Interconnection Per LATA onto its Network Consistent With Section 51.703 of the FCC's Rules:

7.1.1.4.1 Level 3 may interconnect with Qwest at any technically feasible point on Qwest's network for the exchange of telecommunications traffic. Such technically feasible points include but are not limited to Qwest access tandems or Qwest local tandems. When CLEC is interconnected at the SPOI. separate trunk groups for separate types of traffic may be established in accordance with the terms hereof. No separate

physical interconnection facilities, as opposed to separate trunk groups within SPOI facilities, shall be established except upon express mutual agreement of the Parties.

Q. WHY DOES QWEST OBJECT TO LEVEL 3'S PROPOSED LANGUAGE?

A. As Mr. Easton's testimony explains, the POI is not the financial demarcation point between Level 3 and Qwest. Level 3 also incorrectly define its POI as a point that is physically located on Qwest's network. In addition Level 3's proposed language is inconsistent and attempts to extend Qwest's interconnection responsibility to any point on the Qwest network to a point not even within Qwest's serving territory. Level 3's proposed language would impose a requirement on Qwest to accept traffic where there are technical limitations and requires higher transmission rates than may be necessary or justified. Qwest also disputes the portions of Level 3's proposed language in Issue No. 1A as they apply or support other issues in dispute. The testimony of Mr. Brotherson will address the portions of Issue No.1A that concern Voice over Internet Protocol ("VoIP").

Q. DOES QWEST'S LANGUAGE PROHIBIT SINGLE POINT OF INTERCONNECTION?

A. No. Qwest's proposed language does not prohibit Single Point of Interconnection ("SPOI"); in fact it allows for SPOI under conditions that have been found acceptable by other similarly situated carriers and Commissions throughout Qwest's 14 state territory. As I will explain later in my testimony when addressing issue 1B, Level 3 has multiple methods available to it to establish interconnection to its POI under Qwest's proposed language. Qwest's position is that it is entitled to compensation for the facilities Qwest provides to enable Level 3's selection of a SPOI.

1 **Q. WHAT IS SINGLE POINT OF INTERCONNECTION?**

2 A. A SPOI is a physical demarcation point where Level 3 and Qwest can exchange traffic
3 originating from or destined for multiple Qwest end offices within a LATA utilizing Qwest
4 provided transport facilities between Level 3's network and Qwest's network. This allows
5 Level 3 the benefit of serving customers that are located in different Qwest exchanges
6 without having to build its own transport facilities to each exchange where Level 3 wishes
7 to provide local service. As my testimony will explain when addressing issue 1B, there are
8 multiple methods of interconnection that would allow Level 3 to establish these transport
9 facilities between Qwest and Level 3's SPOI.

10 **Q. IS LEVEL 3 CORRECT TO SUGGEST THAT IT MAY ESTABLISH ITS POI**
11 **PHYSICALLY LOCATED ON QWEST'S NETWORK?**

12 A. No. While a POI may be located within a Qwest office, interconnection is accomplished by
13 means of cross-connections between components of Qwest's network and components of
14 the interconnecting CLEC's network. These cross-connections are the physical
15 demarcation point between the networks and facilitate the exchange of traffic between two
16 separate networks. Level 3's language incorrectly and inappropriately suggests that it has
17 the right to establish a POI that is directly connected to Qwest's equipment. What Level 3
18 is requesting, in actuality, is integration into Qwest's network, and not interconnection with
19 Qwest's network. Level 3's proposal prevents Qwest from retaining sole responsibility for
20 the management, control, and performance of its own network and is contrary to the intent

of the Act[1]. It is Qwest's position that interconnection is appropriately obtained by establishing a demarcation point (or POI) between Qwest's network and Level 3's network.

Q. WHAT IS A DEMARCATION POINT?

A. A demarcation point is a point where the facilities of two networks meet. This allows each network operator to maintain and control the performance of its respective network without potential adverse impacts that may be created by the other network operator's network operation. Such demarcation points can include such locations as a main distribution frame[2]. The demarcation point between Qwest and CLECs including Level 3 is its POI. Without a demarcation point where the two networks can meet, neither Qwest nor Level 3 may be assured the ability to maintain or control the performance of its network.

Q. ARE THERE OPTIONS AVAILABLE TO LEVEL 3 FOR ESTABLISHING A DEMARCATION POINT/POI?

A. Yes. The demarcation of Level 3's network is also its POI location. For Level 3 to establish interconnection with Qwest, Level 3 must create its POI for demarcation at a point in each LATA within Qwest's serving territory. Level 3 would then choose a method of interconnection that best fits its needs. The methods for establishing interconnection are explained in my testimony for Issue 1B.

[1] FCC 96-325, First Report And Order Paragraph 203 Aug. 8th 1996.
[2] FCC 96-325, First Report And Order Paragraph 210 Aug. 8th 1996

Q. HOW IS LEVEL 3'S PROPOSED LANGUAGE INCONSISTENT?

A. Level 3's language is inconsistent because it describes interconnection "within" Qwest's network in section 7.1.1 and then "on" Qwest's network in section 7.1.1.4 and 7.1.1.4.1. While Qwest agrees that the word "within" represents interconnection within Qwest's serving territory, the use of "on" in Level 3's proposed language increases the potential for future disputes.

Q. HOW DOES LEVEL 3'S PROPOSED LANGUAGE OBLIGATE QWEST TO ACCEPT TRAFFIC WHERE IT IS NOT TECHNICALLY FEASIBLE?

A. Level 3's proposed language obligates Qwest to accept telecommunications traffic of all types through Level 3's SPOI at any technically feasible point. All types of telecommunications traffic includes toll type traffic. Level 3 then defines the technically feasible points to include Qwest's access tandems and local tandems. Qwest's network currently consists of a combination of access tandems, for the routing of toll traffic, and local tandems, for the routing of local traffic. Qwest's local tandem architecture, however, does not have the capability of routing toll traffic. Qwest's local tandems do not have the connections to end offices and other carriers that would allow for the appropriate routing of traffic that is not local to the end offices that subtend each local tandem. To achieve that capability would require a substantial modification of Qwest's current network, which is not an obligation under the Act. Level 3's proposed language attempts to redefine technical feasible locations of interconnection that are not technically feasible, ignoring the current architectures and their limitations.

Q. WOULD THE ESTABLISHMENT OF A SINGLE POI IN A LATA REQUIRE LEVEL 3'S USE OF QWEST'S NETWORK?

A. Yes. To facilitate the connection between Level 3's POI and Qwest's network typically requires Qwest to provision or build transport facilities to Level 3 for the sole purpose of Level 3's interconnection with Qwest. Level 3's decision to interconnect with Qwest is a decision made solely by Level 3.

Q. IS IT APPROPRIATE TO REQUIRE HIGHER TRANSMISSION RATES WHEN TRAFFIC VOLUME DOES NOT JUSTIFY IT?

A. No. Level 3's language proposes that each party provide higher transmission rates upon the request of the other party. This would force the placement or the augmentation of facilities to Qwest's existing network. Again, this is a redefinition of Qwest's obligation and a modification of its existing architectures and network's capabilities. The argument for adequate facilities to deliver higher transmission rates as proposed by Level 3 would promote inefficient use of the network. It is inappropriate and unreasonable to expect the upgrading of facilities or the adding of unnecessary capacity to the network when the network demand for such capacity is possibly not justified.

Q. WHAT PORTIONS OF ISSUE NO. 1A ARE ADDRESSED BY OTHER ISSUES IN THIS ARBITRATION?

A. Level 3's language at 7.1.1.1, 7.1.1.2 and 7.1.1.4.1 suggests that Level 3 be allowed to route switched access traffic over interconnection trunks. This language implicates Issue

No. 2 and as described in my testimony for Issue No. 2, Qwest objects to Level 3's language.

Issue No. 1B

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1B.

A. Issue 1B involves disputed language which Level 3 incorrectly proposes methods of establishing its POI that are actually methods of interconnection.

Q. WHAT LANGUAGE DOES QWEST PROPOSE?

A. Qwest proposes the following:

7.1.2 Methods of Interconnection

The Parties will negotiate the facilities arrangement used to interconnect their respective networks. CLEC shall establish at least one (1) physical Point of Interconnection in Qwest territory in each LATA CLEC has local Customers. The Parties shall establish, through negotiations, at least one (1) of the following Interconnection arrangements, at any Technically Feasible point: (1) a DS1 or DS3 Qwest provided facility; (2) Collocation; (3) negotiated Mid-Span Meet POI facilities; or (4) other Technically Feasible methods of Interconnection, such as an OCn Qwest provided facility, via the Bona Fide Request (BFR) process unless a particular arrangement has been previously provided to a third party, or is offered by Qwest as a product. OCn Qwest provided facilities may be ordered through FCC Tariff No. 1.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following:

7.1.2 Methods of Interconnection

CLEC may establish a POI through: (1) a collocation site established by CLEC at a Qwest wire center, (2) a collocation site established by a third party at Qwest wire center, or (3) transport (and entrance facilities where applicable).

CLEC shall establish one POI at any technically feasible point on Qwest's network within each LATA in which CLEC desires to exchange traffic directly with Qwest by any of the following methods:

1. a collocation site established by CLEC at a Qwest Wire Center,
2. a collocation site established by a third party at Qwest Wire Center, or;
3. transport (and entrance facilities where applicable) ordered and purchased by CLEC from Qwest; or,
4. Fiber meet point.

CLEC shall establish one POI on Qwest's network in each LATA. POIs may be established by CLEC through:

1. a collocation site established by CLEC at a Qwest Wire Center,
2. a collocation site established by a third party at Qwest Wire Center,
3. transport (and entrance facilities where applicable) ordered and purchased by CLEC from Qwest at the applicable Qwest intrastate access rates and charges; or,
4. Fiber meet point.

Q. WHAT CONCERNS DOES QWEST HAVE WITH LEVEL 3'S LANGUAGE?

A. Level 3's proposed language confuses the methods of obtaining interconnection with establishment of its POI "within" Qwest's network. Level 3's language sets a requirement to interconnect "on" Qwest's network and then lists facility arrangements or methods used to interconnect with Qwest.

Q. WHAT IS THE DIFFERENCE BETWEEN A POINT OF INTERCONNECTION AND INTERCONNECTION?

A. As I have explained above, a POI is the physical demarcation point to which Level 3 may have Qwest provision/build transport facilities between Level 3's network and Qwest's

network. This demarcation point/POI allows separation of responsibility for the respective network operators to maintain and control the performance of each network. Interconnection, on the other hand, is the actual establishment of the transport connection between Level 3's POI and Qwest's network.

Q. WHAT FACILITY ARRANGEMENTS DOES QWEST PROVIDE FOR INTERCONNECTION WITH LEVEL 3?

A. There are four facility arrangements or methods of establishing interconnection with Qwest: (1) DS1 or DS3 Qwest provided facility; (2) Collocation; (3) negotiated Mid-Span Meet POI facilities; and (4) other Technically Feasible methods of Interconnection. Level 3 may use any or all of these options to establish interconnection with Qwest.

The "DS1 or DS3 Qwest provided facility" is an option for establishing interconnection where Qwest provisions/builds a transport facility to the Level 3 POI either at the DS1 level of transmission or at a DS3 level of transmission. DS1s and DS3s are merely different bandwidths of transport facilities that Qwest provisions/builds to Level 3's POI that is located within the same Qwest exchange. The Qwest provided facility described here is also known as an entrance facility.

Collocation is an option by which Level 3 may extend its facilities into a Qwest central office and terminate them to collocate within that central office to establish a POI. Qwest would then provision/build interconnection facilities to the Level 3 Collocation. This Collocation may also be a third party Collocation.

"Negotiated Mid-Span Meet POI facilities" is an option where Level 3 extends its own facilities to a negotiated point approximately half way between the Level 3 SPOI and Qwest's wire center building. With this arrangement, Level 3 builds its portion of the transport facilities while Qwest builds its portion of its transport facilities to an agreeable location for interconnection at the midpoint between Level 3's POI and Qwest's network. This allows Level 3 and Qwest to equally share in the cost of building the transport required for Level 3 to interconnect with Qwest.

"Other Technically Feasible methods of Interconnection" is an option when there is an alternate method of interconnection. This is done through a Bona Fide Request ("BFR") The BFR enables Qwest to validate the technical feasibility of the alternate method to facilitate interconnection. Interconnection is not the only use of the BFR. A BFR can be used for other requests such as those associated with access to Unbundled Network Elements that are not available.

Q. PLEASE SUMMARIZE WHAT THESE OPTIONS PROVIDE?

A. These options provide Level 3 the flexibility to have Qwest build facilities to Level 3, or have Level 3 build to Qwest's wire center (Collocation), or meet somewhere in the middle. Qwest also provides the flexibility to use an alternate technical feasible method not covered by the previous three options.

Q. ARE THERE ANY OTHER FACILITIES THAT MAY BE REQUIRED FOR INTERCONNECTION?

A. On occasion, yes. For example, if Level 3 wishes to establish its POI in a particular Qwest exchange in which Level 3 does not wish to interconnect, then Direct Trunked Transport would be required to connect Level 3's POI to the Qwest switch it did wish to interconnect.

Q. IS LEVEL 3'S PROPOSED LANGUAGE CONSISTENT WITH THESE METHODS OF INTERCONNECTION?

A. No. Level 3's proposed language mischaracterizes these methods as a way to establish its POI rather than the methods by which to connect its POI to the Qwest network. However, among these methods, only one involves establishing a POI and the others provide the underlying transport for interconnection to Level 3's POI. Although Collocation does not provide interconnection, it does provide the basis of the facility arrangements needed to establish interconnection. For example, if Level 3 were to establish Collocation in a Qwest central office, the Collocation only provides Level 3 with space within the Qwest central office to establish Level 3's POI. Interconnection facilities would then have to be provisioned to Level 3's Collocation POI. Such a facility could be as simple as a wire jumper that connects existing Qwest transport facilities with Level 3's facilities.

In short, interconnection is provided after a POI is established. Each of the methods my testimony describes above are methods for establishing the transport for interconnection or in the case of Collocation for establishing the basis of the facility arrangement to obtain interconnection.

Q. WHAT SERVICE DOES QWEST PROVIDE THAT USES THESE FACILITY ARRANGEMENTS FOR THE EXCHANGE OF TRAFFIC?

A. Qwest provides Local Interconnect Service ("LIS") using these facility arrangements. Qwest will provision LIS to Level 3 using the facility arrangement that Level 3 finds best fits its needs.

Q. WHAT IS LIS?

A. LIS is a bundled trunk-side service providing switching and transport for the mutual exchange of traffic that originates and terminates within a Qwest Local Calling Area (LCA) or an Extended Area Service (EAS) boundary. LIS provides the logical connections that are necessary for the exchange of traffic and are established over the physical facility arrangement that is chosen by Level 3 to connect Level 3's POI with Qwest's network.

Q. HOW IS LIS PROVISIONED TO INTERCONNECT LEVEL 3 AND QWEST?

A. LIS is provisioned by using transport facilities and logical trunk connections. Switches are equipped with interfaces so that they may be connected to one another. The facility options my testimony describes above are the facility options Level 3 may use to connect its switches with Qwest's switches. Logical trunk connections then must be created over these facilities in order for telecommunications traffic to flow between the switches. Both Qwest and Level 3 must coordinate the creation of these trunks during the provisioning of LIS. Each trunk that is created between switches allows a voice conversation to take place between the switches. Each switch must have a trunk connection for a call to route to the other switch. Based on the coordinated provisioning of LIS, each switch is programmed to

1 know which trunk to route the call across using the subscriber's dialed digits as directions.
2 The switch would then route the call to the predetermined trunk that connects the two
3 switches for completion of the call. The trunk allows the subscriber to create a connection
4 between switches to complete a call.

5 **Q. WHAT TRUNKING OPTIONS ARE THERE FOR LIS?**

6 A. There are essentially four local trunking options available to Level 3: (1) LIS to Qwest's
7 End Office; (2) LIS to Qwest's local tandem; (3) LIS to Qwest's access tandem; and (4)
8 Single Point of Presence ("SPOP").

9 LIS to Qwest's End Office allows for Level 3 to send and receive its end user's local traffic
10 to and from each end office that Level 3 has established LIS.

11 LIS to Qwest's local tandem allows for Level 3 to send and receive its end user's local
12 traffic to and from a local tandem for delivery of that traffic to and from all end offices that
13 subtend that local tandem. This traffic may also consist of transit traffic to a third local
14 carrier.

15 LIS to Qwest's access tandem allows for Level 3 to send and receive its end user's traffic
16 to and from IXCs that are connected to that access tandem. This traffic may also consist of
17 IntraLATA transit traffic to a third local carrier. In addition, Level 3 may send its own
18 intraLATA toll that its end users originate.

SPOP allows for Level 3 to send and receive its end user's local traffic to and from all end offices that subtend Qwest's access tandem. SPOP also allows for Level 3 to send and receive its end user's traffic to and from IXCs that are connected to that access tandem. In addition, Level 3 may send its own intraLATA toll that its end users originate. This traffic may also include both IntraLATA and Local transit traffic to a third local carrier.

Q. WHAT ARE THE BENEFITS OF SPOP?

A. Where volumes of local traffic are low, Level 3 only has to establish trunks to the access tandem. This avoids trunking between Level 3's POI and each end office and local tandems.

Q. ARE THERE LIMITATIONS TO SPOP?

A. Yes. Not all local carriers, Interexchange Carriers ("IXCs") or Qwest end offices have connections with each Qwest access tandem. Therefore, separate connections to each access tandem may be required to the extent there is more than one access tandem in a LATA. In addition, and as I explain in issue 1F, it may be necessary for Level 3 to establish trunking, where traffic volumes justify, directly to local tandem switches or end office switches.

Q. IS LEVEL 3 REQUIRED TO INTERCONNECT AT EVERY ACCESS TANDEM IN THE LATA?

A. No. Level 3 must only interconnect its POI to an access tandem where Level 3's traffic is destined for a local carrier, IXC or Qwest end office that subtends that access tandem. For

1 example, the Phoenix LATA has two access tandems. One of the access tandems generally
2 serves Northern and Western portions of the Phoenix LATA and the other access tandem
3 generally serves Southern and Eastern portions of the Phoenix LATA. If Level 3 has
4 traffic destined only to local carriers, IXCs or Qwest end offices that subtend the access
5 tandem that serve the Northern and Western portions of the Phoenix LATA then only
6 interconnection to that access tandem is required.

7 **Q. HOW ARE THE COST'S SHARED TO CREATE INTERCONNECTION**
8 **BETWEEN LEVEL 3 AND QWEST?**

9 A. As the testimony of Mr. Easton explains, a relative use factor is applied to apportion the
10 cost of the facilities used for interconnection between the parties.

11 **Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?**

12 A. Qwest language more appropriately reflects the interconnection between Qwest's network
13 and Level 3's network. Unlike Level 3's language, Qwest's language does not confuse
14 what is required to create a POI with what is realistically required to interconnect two
15 networks.

16 **Issue No. 1F**

17 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1F.**

18 A. Level 3 removes the language describing how Level 3 may interconnect at Qwest's local
19 and access tandem switches. Level 3 also removes the requirement for Level 3 to establish
20 trunking as requested by Qwest where traffic volumes justify alternate trunking. My

testimony will explain why this language is important from a technical perspective. In addition, Level 3 again inappropriately inserts the disclaimer that it should not have to pay for the use of the Qwest network. The testimony of Mr. Easton will explain that Level 3's language not only ignores Level 3's obligations under the law, but is also clearly misplaced in a section describing the technical aspects of interconnection.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following:

> 7.2.2.9.6 The Parties shall terminate Exchange Service (EAS/Local) traffic on Tandem Switches or End Office Switches. CLEC may interconnect at either the Qwest local tandem or the Qwest access tandem for the delivery of local exchange traffic. When CLEC is interconnected at the access tandem and when there is a DS1 level of traffic (512 BHCCS) over three (3) consecutive months between CLEC's Switch and a Qwest End Office Switch, Qwest may request CLEC to order a direct trunk group to the Qwest End Office Switch. CLEC shall comply with that request unless it can demonstrate that such compliance will impose upon it a material adverse economic or operations impact. Furthermore, Qwest may propose to provide Interconnection facilities to the local Tandem Switches or End Office Switches served by the Access Tandem Switch at the same cost to CLEC as Interconnection at the Access Tandem Switch. If CLEC provides a written statement of its objections to a Qwest cost-equivalency proposal, Qwest may require it only: (a) upon demonstrating that a failure to do so will have a material adverse affect on the operation of its network and (b) upon a finding that doing so will have no material adverse impact on the operation of CLEC, as compared with Interconnection at such Access Tandem Switch.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

> 7.2.2.9.6 When CLEC is interconnected at the access tandem and when there is a DS1 level of traffic (512 BHCCS) over three (3) consecutive months between CLEC's Switch and a Qwest End Office Switch, Qwest may request CLEC to order a direct trunk group to the Qwest End Office Switch. Notwithstanding references to Qwest's ability to requests that CLECs order direct trunk groups to the Qwest end office, nothing in this

agreement shall be construed to require CLEC to pay Qwest for any services or facilities on Qwest's side of the POI in connection with the origination of traffic from Qwest to CLEC; and nothing herein shall be construed to require CLEC to pay for any services or facilities on Qwest's side of the POI in connection with the termination of traffic from CLEC by Qwest, other than reciprocal compensation payments as provided in this Agreement.

Q. WHY IS QWEST OPPOSED TO THE LEVEL 3 LANGUAGE?

A. Level 3 has removed the language that specifies tandems and end offices as points where traffic terminates. Level 3's proposed language ignores Qwest's existing network architecture, creating ambiguity and non-specificity that may lead to later disputes. (There are no other locations on Qwest's network where traffic may be delivered.) More disturbingly, Level 3 removes the requirement to establish trunking to subtending network switches when increases in traffic volumes justify the alternate trunking. This is critical in maintaining a robust and reliable network for not only all interconnecting carriers (including Level 3), but also for Qwest customers as well, by insuring that network capacity may be managed and maintained efficiently.

Q. ARE THERE ANY OTHER METHODS BY WHICH LEVEL 3 MAY TERMINATE TRAFFIC?

A. No. By removing the language that allows for the exchange of Local/EAS traffic to Qwest tandems, Level 3 implies that there are other locations that Level 3 may terminate traffic to in Qwest's network. There are no other methods for Qwest to terminate Local/EAS traffic than through Qwest's tandems and end offices.

Q. ARE THERE OTHER TERMINATION POINTS IN THE PUBLIC SWITCHED TELEPHONE NETWORK ("PSTN") THAT OPERATE DIFFERENTLY THAN AN END OFFICE OR A TANDEM?

A. No. Switches perform essentially two functions in the telecommunications network. They either operate with a tandem function or an end office function.

Q. WHAT IS THE DIFFERENCE BETWEEN AN END OFFICE AND A TANDEM?

A. An end office serves end user customers. It is typically the last point of switching before traffic reaches the end user customers and is the point from which an end user customer draws dial tone and which performs the initial processing of a call from an end user served by that end office. A tandem switch on the other hand serves other switches. In other words tandem switches route traffic to other switches. This network architecture is not unique to Qwest, and Level 3's refusal to acknowledge its existence flies in the face of logic, considering that it wants to interconnect with such a network.

Q. WHY IS IT IMPORTANT TO ESTABLISH THE FUNCTION OF THE SWITCHES WHERE LOCAL TRAFFIC SHOULD TERMINATE?

A. It is important to identify the function of switches where local traffic terminates so that there is no confusion as to the network switching functions to which the Interconnection Agreement ("ICA") applies. Without this language, Level 3 may seek interconnection utilizing a function that the Qwest network is not capable of providing. It is important that the contract identify the type of traffic and the function of the switches where that traffic

will be accepted so that this is clear to both parties. Qwest's language provides this clarity. Level 3's language does not.

Q. WHY DOES QWEST OPPOSE THE REMOVAL OF LANGUAGE THAT REQUIRES LEVEL 3 TO ESTABLISH TRUNKING TO SUBTENDING NETWORK SWITCHES WHEN VOLUMES JUSTIFY ALTERNATE TRUNKING?

A. Level 3's proposed language removes any responsibility for Level 3 to establish alternate trunking to maintain efficient use of network resources that are shared by all interconnecting carriers. By removing language that requires efficient use of the network Level 3 has the potential to negatively impact Qwest's switching resources, their reliability and their availability to all other interconnecting carriers. Level 3 attempts to avoid its responsibility to maintain network robustness and efficiency which other carriers interconnected with Qwest have previously acknowledged and assumed.

Q. DOES THE REQUIREMENT TO ESTABLISH ALTERNATE TRUNKING CREATE A FINANCIAL BURDEN ON LEVEL 3?

A. No. Direct trunking will typically save Level 3 money because with it Level 3 would avoid tandem switching costs. However, if the result is an economic burden, Qwest's language provides a mechanism for Level 3 to avoid the burden.

Q. DOES QWEST PROVIDE ANY ASSISTANCE IN IDENTIFYING TRUNKING THAT HAS BECOME INEFFICIENT?

A. Yes, Qwest monitors the volumes of traffic exchanged with Qwest that are destined to and from Qwest end offices. Qwest then generates reports that identify inefficient trunking. These reports are then shared with Level 3 along with a request to establish direct trunking and instructions as to which end office(s) direct trunking should be established.

Q. HAS LEVEL 3 BEEN COOPERATIVE WHEN WORKING WITH QWEST ON TRUNKING ISSUES?

A. Yes. Level 3 has historically been very cooperative when working with Qwest's trunk administration group. Level 3's proposed language which refuses to maintain network efficiencies is surprising given the cooperative history that has in the past existed between Qwest and Level 3.

Q. WHAT IS THE 512 BHCCS?

A. 512 BHCCS or 512 Busy Hour Centum Call Seconds is the measure of usage capacity of a DS1 trunk during the busiest hour of the day. Usage is measured Centum Call Seconds ("CCS") or one hundred call seconds. A line or trunk that is in use for one hour, or sixty minutes, is being used for 3600 seconds, or 36 hundred call seconds, or 36 CCS. As stated in Newton's Telecom Dictionary: "One hundred call seconds or one hundred seconds of telephone conversation. One hour of telephone traffic is equal to 36 ccs (60*60=3600/100=36) which is equal to one erlang." Newton's Telecom Dictionary, Volume 17 at 131 (February 2001). 512 BHCCs is essentially equivalent to a DS1 worth

of usage. Telecommunications switch ports typically are provisioned in increments of DS1 capacity. It is generally recognized by the industry as the traffic threshold that indicates a sufficiently high volume of traffic that would warrant the provisioning of alternative, direct trunking arrangements.

Q. WHAT IS THE 512 BHCCS RULE?

A. The 512 BHCCS rule establishes the threshold of usage which when reached means that direct trunking to the end office is typically more efficient than trunking that usage through a tandem switch.

Q. HOW DOES QWEST LANGUAGE CREATE EFFICIENT USE OF THE NETWORK?

A. Qwest's language establishes a threshold that facilitates efficient interconnection between Qwest and all CLEC switches. The threshold allows Qwest to manage traffic through tandem switches when traffic volumes justify a direct connection with a specific end office. As can be seen in Exhibits PL1 & PL2, as CLEC traffic that is destined for a Qwest end office reaches or exceeds 512 BHCCS or a DS1's capacity it becomes logical to direct trunk to that end office. This creates network efficiencies by eliminating the need to provide additional switching through the tandem.

Q. DOES QWEST USE THE SAME THRESHOLD TO EVALUATE ITS OWN NETWORK TRUNKING EFFICIENCIES?

A. Yes. Qwest applies the same network threshold in its own trunking analysis so that it may better utilize the trunking capacity between its end offices and tandems.

Q. WHAT WOULD BE THE RESULT IF NO INTERCONNECTING CARRIERS FOLLOWED THE 512 BHCCS RULE?

A. All switches have limits for trunking capacity. As carriers add more and more trunking to each tandem, the tandems would begin to reach capacity. Once a tandem reaches its maximum trunking capacity, an additional tandem would have to be installed.

IV. DISPUTED ISSUE NO. 2: ALL TRAFFIC ON INTERCONNECTION TRUNKS

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 2.

A. Issue 2 concerns the types of traffic that may be combined over LIS trunks and whether Qwest is entitled to compensation for the interconnection trunks it provides to Level 3. The testimony of Mr. Easton will address the compensation issue while my testimony will address the network and technical issues.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest is proposing the following language:

> 7.2.2.9.3.1 Exchange Service (EAS/Local), ISP-Bound Traffic, IntraLATA LEC Toll, VoIP traffic and Jointly Provided Switched Access (InterLATA and IntraLATA Toll involving a third party IXC) may be combined in a single LIS trunk group or transmitted on separate LIS trunk groups.

7.2.2.9.3.1.1 If CLEC utilizes trunking arrangements as described in Section 7.2.2.9.3.1, Exchange Service (EAS/Local) traffic shall not be combined with Switched Access, not including Jointly Provided Switched Access, on the same trunk group, i.e. Exchange Service (EAS/Local) traffic may not be combined with Switched Access Feature Group D traffic to a Qwest Access Tandem Switch and/or End Office Switch.

7.2.2.9.3.2 CLEC may combine originating Exchange Service (EAS/Local) traffic, ISP-Bound Traffic, IntraLATA LEC Toll, VoIP Traffic and Switched Access Feature Group D traffic including Jointly Provided Switched Access traffic, on the same Feature Group D trunk group.

7.2.2.9.3.2.1 CLEC shall provide to Qwest, each quarter, Percent Local Use (PLU) factor(s) that can be verified with individual call detail records or the Parties may use call records or mechanized jurisdictionalization using Calling Party Number (CPN) information in lieu of PLU, if CPN is available. Where CLEC utilizes an affiliate's Interexchange Carrier (IXC) Feature Group D trunks to deliver Exchange Service (EAS/Local) traffic with interexchange Switched Access traffic to Qwest, Qwest shall establish trunk group(s) to deliver Exchange Service (EAS/Local), Transit, and IntraLATA LEC Toll to CLEC. Qwest will use or establish a POI for such trunk group in accordance with Section 7.1.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following language:

7.2.2.9.3.1 Where CLEC exchanges Telephone Exchange Service, Exchange Access Service, Telephone Toll Service, and Information Services traffic with Qwest over a single interconnection network, CLEC agrees to pay Qwest, on Qwest's side of the POI, state or federally tariffed rates applicable to the facilities charges for InterLATA and/or InterLATA traffic in proportion to the total amount of traffic exchanged over such interconnection facility. Otherwise each party remains 100% responsible for the costs of its interconnection facilities on its side of the POI. Thus, by way of illustration only, where 20% of such traffic is interLATA (intrastate and interstate) and the remaining 80% is Section 251(b)(5) Traffic, CLEC would pay Qwest an amount equal to 20% of the applicable tariffed transport rate that would apply to a tariffed facility used solely for the exchange of such access traffic for such traffic exchanged on Qwest's side of the POI over a single interconnection trunk.

Except as expressly provided in Section 7.3.1.1.3, each party shall bear all costs of interconnection on its side of the network in accordance with 47 C.F.R. § 51.703.

Accordingly, unless otherwise expressly authorized according to Section 7.3.1.1.3, neither Party may charge the other (and neither Party shall have an obligation to pay) any recurring and/or nonrecurring fees, charges or the like (including, without limitation, any transport charges), associated with the exchange of any telecommunications traffic including but not limited to Section 251(b)(5) Traffic on its side of the POI.

Each party is solely responsible for any and all costs arising from or related to establishing and maintaining the interconnection trunks and facilities it uses to connect to the POI. Thus, neither party shall require the other to bear any additional costs for the establishment and operation of interconnection facilities that connect its network to its side of the POI. If traffic is combined, Section 7.3.9 of this Agreement applies.

7.2.2.9.3.2 CLEC may combine Exchange Service (EAS/Local) traffic, ISP-Bound Traffic, Exchange Access (IntraLATA Toll carried solely by Local Exchange Carriers), VoIP Traffic and Switched Access Feature Group D traffic including Jointly Provided Switched Access traffic, on the same Feature Group D trunk group <u>or over the same interconnection trunk groups as provided in Section 7.3.9.</u>

Q. WHAT CONCERNS DOES QWEST HAVE WITH LEVEL 3'S PROPOSED LANGUAGE?

A. Level 3 is proposing to route switched access traffic over local trunks. This creates several technical problems that have various impacts to Qwest, CLECs and independent companies. These technical problems are mainly associated with the recording of the switched access traffic. Switched access traffic is typically routed over access service trunks such as Feature Group D ("FGD") trunks. Level 3's proposed language creates technical difficulties that would otherwise be avoided by using the access service trunks which all other Interexchange service providers establish with Qwest. Qwest has also provided Level 3 with language that would allow Level 3 to route all its traffic over FGD. The routing of Level 3's traffic over FGD trunking will provide Level 3 with the same efficiencies that it will argue that it would obtain if it were allowed to route traffic over

local interconnection trunking. Furthermore, Qwest's proposed language is in keeping with industry practice.

Q. WHAT IS SWITCHED ACCESS TRAFFIC?

A. Switched access traffic is InterLATA and IntraLATA traffic that routes to and from IXCs. This traffic typically routes between IXCs and Local Exchange Carriers ("LECs"). IXCs purchase switched access services from LECs so that the IXC may receive and deliver InterLATA toll and IntraLATA toll traffic to and from LECs networks. This switched access service typically utilizes Feature Group trunking. Feature Group trunking is a software feature of a telecommunications switch that allows IntraLATA toll and InterLATA toll traffic to be routed to IXC networks. FGD is the most typical software feature used to route traffic to IXCs on an equal access basis. This traffic is specific to IXCs.

Q. IS YOUR DESCRIPTION OF SWITCHED ACCESS CONSISTENT WITH THE DEFINITION AGREED TO IN THE PROPOSED ICA?

A. Yes.

Q. WHAT TYPES OF TRAFFIC DOES LEVEL 3 INTEND TO ROUTE OVER LIS TRUNKING?

A. Level 3 intends to route switched access traffic that Level 3 carries on behalf of other IXCs over LIS trunks established by Level 3 with Qwest. This is traffic that other IXCs agree to send to Level 3 to facilitate the termination of switched access traffic on the IXC's behalf.

1 **Q. WHAT OPTIONS DOES LEVEL 3 HAVE TO ROUTE AND TRANSPORT**
2 **SWITCHED ACCESS TRAFFIC?**
3 A. Level 3 has several options that it may use to transport and route switched access traffic on
4 behalf of other IXCs. Level 3 may route the traffic directly to the corresponding Level 3
5 end user customer, the appropriate location designated by the terminating LEC network, or
6 to yet another IXC.

7 **Q. IS THE ROUTING OF SWITCHED ACCESS TRAFFIC THAT YOUR**
8 **TESTIMONY DESCRIBED ABOVE DIFFERENT FROM THE WAY OTHER**
9 **IXCS MAY ROUTE SWITCHED ACCESS TRAFFIC?**
10 A. No. Other IXCs typically route traffic in the same manner as I have just described in my
11 testimony.

12 **Q. WHAT SPECIFIC TECHNICAL PROBLEMS WOULD BE CREATED IF**
13 **LEVEL 3 ROUTES SWITCHED ACCESS TRAFFIC OVER LIS TRUNKS?**
14 A. The most significant problem with routing switched access traffic over LIS trunks is
15 Qwest's inability to generate a record for billing. Specifically, Qwest's recording of LIS
16 trunks is not designed or engineered to record switched access traffic for the purposes of
17 billing.

18 **Q. WHAT METHODS DOES QWEST USE TO RECORD TRAFFIC?**
19 A. There are two methods that Qwest records traffic for intercarrier compensation. The first is
20 through a switch-based recording and the second is through a link monitoring recording

based on SS7 signaling. The switch-based recording uses memory in the switch to record and format the information that is received by the switch. The SS7 based recording tool records traffic using information provided in the SS7 signaling stream.

Q. HOW ARE THESE TWO METHODS OF RECORDING TRAFFIC UTILIZED FOR INTERCARRIER COMPENSATION?

A. Switch based recordings are used for Access Service billing of IXCs and billing of Wireless carriers. The use of these recordings is based on the Access Service or Interconnection Service that is requested by a carrier. As I explained above, IXCs obtain connections to Qwest's network using access services such as FGD. Wireless Service providers typically request interconnection using Type 2 interconnection trunking.

CroSS7 recordings on the other hand are used for billing CLECs and some independent companies. The CroSS7 recording capability has been set up associated with LIS trunks so that local traffic may be recorded.

Q. IS A SWITCH-BASED RECORD CREATED ON LOCAL CALLS?

A. No. Prior to 1996 and the Telecom Act there was no need to record local traffic for the purposes of intercarrier compensation. Before the 1996 Act local service was provided exclusively by Incumbent Local Exchange Carriers ("ILEC") and was typically provided at a flat rate. However, after the 1996 Act and the introduction of CLECs, reciprocal compensation for local traffic became an issue. As a result, CroSS7 was developed to record traffic that was exchanged between Qwest and CLECs over LIS trunks.

1 **Q. DOES CROSS7 RECORD SWITCHED ACCESS FOR BILLING PURPOSES?**

2 A. No. There was no need to enable CroSS7 to record switched access traffic or to incur the
3 expense of monitoring additional services, because access service recording was done by a
4 switch based recording associated with access service trunking. CroSS7 was developed
5 solely to record local traffic that was exchanged with CLECs.

6 **Q. IF LEVEL 3 WERE TO ROUTE SWITCHED ACCESS TRAFFIC OVER LIS**
7 **TRUNKS, WOULD QWEST HAVE THE ABILITY TO CREATE A SWITCHED**
8 **ACCESS RECORD?**

9 A. No. Because CroSS7 was not engineered to record switched access traffic, Qwest would
10 not have the ability to create a switched access record for billing purposes.

11 **Q. WHAT OTHER PROBLEMS WOULD OCCUR IF LEVEL 3 WERE ALLOWED**
12 **TO ROUTE SWITCHED ACCESS TRAFFIC OVER LIS TRUNKS?**

13 A. If Level 3 were to route switched access traffic over its local interconnection trunks with
14 Qwest, other carriers such as independent companies and other CLECs would not receive a
15 jointly provided switched access record. In other words, CLECs and independent
16 companies that terminate Level 3's switched access traffic routed over LIS trunks would
17 not have the ability to bill terminating access charges to Level 3.

Q. WILL QWEST PROVIDE LEVEL 3 THE CAPABILITY TO ROUTE BOTH SWITCHED ACCESS TRAFFIC AND LOCAL TRAFFIC OVER A SINGLE TRUNK GROUP?

A. Yes.

Q. WHAT IS QWEST OFFERING TO LEVEL 3 THAT PROVIDES LEVEL 3 THE CAPABILITY IT IS SEEKING?

A. Qwest's proposed language gives Level 3 this capability. Qwest's language allows Level 3 to route both its local and toll traffic over FGD trunking. As I described above, these trunks are typically used for routing switched access traffic. Qwest has developed a methodology for Level 3 to route its local traffic over these same trunks. Furthermore, Qwest has also developed the ability to record this traffic so that local traffic and access traffic are billed appropriately.

Q. ARE THE NETWORK EFFICIENCIES DIFFERENT IF LEVEL 3 WERE TO ROUTE SWITCHED ACCESS TRAFFIC AND LOCAL TRAFFIC OVER FEATURE GROUP D VERSUS OVER LIS TRUNKS?

A. No. Network efficiency is not an argument against using an established method for routing Level 3's switched access traffic and local traffic over FGD trunking. Once again, Level 3's argument can be distilled down to cost and not network efficiencies or technical feasibility. Level 3 does not want to pay the same tariff rates as all other IXCs to provision its ability to route switched access traffic to Qwest.

Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?

A. Qwest's language more appropriately provides Level 3 with the capability to combine traffic on a single trunk group. At the same time, Qwest's language provides for routing and recording of switched access and local traffic that is consistent with the way other IXCs and CLECs route traffic. It is consistent with industry practice and does not require a "one-off" solution developed solely for Level 3.

V. DISPUTED ISSUE NO. 6: AMA SWITCH TECHNOLOGY

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 6.

A. This issue was never a point of contention during the negotiation of the ICA and only became an issue upon Level 3's filing of its petition for arbitration. The issue in dispute here is the use of the term "inherent in Switch technology" within the definition of Automated Message Accounting ("AMA"). Level 3 disputes the use of the language "inherent in Switch technology."

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following:

> "Automated Message Accounting" or "AMA" is the structure <u>inherent in Switch technology</u> that initially records telecommunication message information. AMA format is contained in the AMA document, published by Telcordia Technologies, or its successors, as GR-1100-CORE which defines the industry standard for message recording.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following

Automated Message Accounting" or "AMA" is the structure that initially records telecommunication message information. AMA format is contained in the AMA document, published by Telcordia Technologies, or its successors, as GR-1100-CORE which defines the industry standard for message recording.

Q. IS QWEST WILLING TO REMOVE THE LANGUAGE THAT LEVEL 3 PROPOSES TO REMOVE IN THE DEFINITION FOR AUTOMATED MESSAGE ACCOUNTING?

A. Yes. The phrase "inherent in Switch technology" has no significant impact to the definition of AMA and can be removed.

VI. DISPUTED ISSUE NO. 8: DEFINITION OF CALL RECORD

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 8.

A. The disputed issue No. 8 concerns what information should be included in the record of a call. Specifically, what call information must be provided in a call record so that the record may be used for intercarrier billing purposes? Although there are some technical limitations in some cases that prohibit the identification of the origination of a call, a call record must include certain fundamental information to create a record for billing purposes. Qwest objects to Level 3's redefining of longstanding industry practice. Level 3's proposed language would require call information that is not necessary for the creation of a call record and then omits information that should be required for the creation of a call record.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following:

"Call Record" means a record that provides key data about individual telephone calls. It includes originating telephone number, terminating telephone number, billing telephone number (if different from originating or terminating number) time and date of call, duration of call, long distance carrier (if applicable), and other data necessary to properly rate and bill the call.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

"Call Record" shall include identification of the following: charge number, Calling Party Number ("CPN"), Other Carrier Number ("OCN"), or Automatic Number Identifier ("ANI"), Originating Line Indicator ("OLI"). In the alternative, a "Call Record" may include any other information agreed upon by both Parties to be used for identifying the jurisdictional nature of the calling party or for assessing applicable intercarrier compensation charges.

Q. WHY IS QWEST OPPOSED TO LEVEL 3'S PROPOSED DEFINITION OF A CALL RECORD?

A. Level 3's definition of a call record obligates both parties to provide certain types of information about a call that may not be available on every call and requires information about a call that has never been required by industry standards. Level 3 also omits information that is essential for a complete call record. In addition, Level 3 uses terms that are unclear and undefined by the telecommunications industry.

Q. WHAT DOES LEVEL 3'S LANGUAGE REQUIRE THAT MAY NOT BE AVAILABLE FOR ALL VALID CALL RECORDS AND WHY DOES QWEST OPPOSE LEVEL 3'S OBLIGATION TO PROVIDE THIS INFORMATION?

A. Qwest opposes Level 3's language because it obligates both parties to provide call information that is not necessary to generate a valid call record. There are two examples of call information specified by Level 3 that is not necessary to create a valid call record.

Level 3's language requires a "charge number" or "Originating Line Indicator" ("OLI"). Charge Number parameter and the Originating Line Information ("OLI") parameter are optional SS7 parameters that identify the billing telephone number and class of service of a call respectively. Local signaling does not require either Charge Number or OLI.[3] As a result, valid call records would not be created under Level 3's definition for local calls. In addition, because IXCs typically strip Charge Number and OLI when terminating a call through Qwest to other local service providers via Jointly Provided Switched Access, terminating access records would also become invalid call records under Level 3's definition.

Level 3 obligates both parties to provide specific call information by incorporating the word "shall" in its proposed definition of a call record.

[3] GR-246-CORE, Telcordia Technologies Specification of Signaling System Number 7, Issue 6 December 2001.

Q. WHAT IS SS7 AND HOW IS IT USED AS REFERENCED ABOVE?

A. Signaling System 7 or SS7 is an out of band Common Channel Signaling ("CCS") protocol that enables the set up and release of calls between switches throughout the PSTN. SS7 CCS also enables and initiates the recording of traffic for billing purposes. SS7 CCS uses a separate network than the one that carries the voice conversations between switches, thus the term out of band signaling. Unlike its Multifrequency signaling predecessor, SS7 CCS also uses digital transmission that enables more call associated information in less amount of time to be transmitted between switches that serve the end points of a call. A portion of the SS7 protocol is made up of parameters which are used to provide specific information about a call. These signaling parameters are defined by industry standards and populated under specific defined circumstances. Some parameters are mandatory with any call. For example, the called party number parameter must always be populated in the signaling stream for a call to complete. However, some parameters are mandatory with only specific types of calls. For example, the OLI parameter is required for call completion only when the call is signaled to an IXC.

Q. DOES QWEST HAVE A WAY OTHER THAN SIGNALING TO PROVIDE CHARGE NUMBER OR ORIGINATING LINE INFORMATION?

A. No. Signaling is the only way that Qwest is capable of providing real time Charge Number and OLI that would enable Level 3 to create a call record as defined by Level 3's proposed definition. I have yet to see any proposal from Level 3 that would provide Qwest with the

same Charge Number or OLI on all calls, both local and non-local, without the use of signaling.

Q. WHAT CALL INFORMATION ELEMENT DOES LEVEL 3 OMIT WITH ITS PROPOSED DEFINITION OF CALL RECORD AND WHY IS IT IMPORTANT?

A. Level 3 has omitted call duration in its proposed definition of call record. It is important to include call duration in a call record because intercarrier compensation is based on network usage which is determined by the fundamental information provided by the call duration. Because today's intercarrier compensation is usage sensitive, the lack of call duration on a call record used for billing would void any record without the presence of call duration information. In addition to call duration, Level 3 has also omitted the time and date call information. Time and date are also important so that the call information can be associated specific to each particular call that is made throughout each day. This type of information is essential when trouble shooting discrepancies in billing.

Q. WHAT TERMS DOES LEVEL 3 USE THAT APPEAR TO BE UNCLEAR AND UNDEFINED?

A. "Charge number", "Other Carrier Number" ("OCN"), "Automatic Line Identifier" ("ANI"), and "OLI" are four terms that are unclear, undefined, or inconsistent with the other uses of the terms that are defined in the proposed ICA.

<u>"Charge number"</u> The term "charge number" as Level 3 references in the definition of Call Record is used as an undefined term. However, "Charge Number" has a specific

1 undisputed definition in the proposed ICA. Level 3's use of "charge number" creates the
2 potential for differing interpretations of what constitutes a charge number. It is important
3 that the definition be specific when using terms that are otherwise defined in other parts of
4 the proposed ICA.

5 "OCN" This acronym is undefined in the proposed ICA and its equivalent acronym has an
6 alternate meaning in the telecommunications industry. The industry uses the abbreviation
7 "OCN" to represent "Operating Company Number." Without a definition of OCN in the
8 proposed ICA that either confirms the same definition for both terms or specifically defines
9 OCN to mean something different from its use in the telecommunication industry there will
10 be disputes about its meaning.

11 "ANI" and "OLI" These terms are defined differently in the proposed ICA from the way
12 Level 3 has defined these terms in their proposed definition of Call Record. The
13 undisputed proposed ICA definitions of these terms are "ANI" and OLI where the "I" in
14 ANI is not Identifier and the "I" in OLI is not "Indicator" as is otherwise defined in the
15 Qwest proposed ICA and in the telecommunications industry. These terms are specifically
16 defined in this ICA to correspond with the industries definition of the SS7 parameters that
17 correspond to these terms.

Q. WHAT OTHER PROBLEMS WOULD ARISE IF CALL RECORD WERE DEFINED BY LEVEL 3'S PROPOSED LANGUAGE?

A. Qwest would then be required to provide a call record specifically for Level 3 and then a second call record for all other carriers with which Qwest exchanges records. This would then require Qwest to implement two different processes and potentially enhance its billing systems to accommodate the different call record requirements. All CLECs that follow industry standard would follow one type of call record requirements and Level 3 would then use an entirely new process and potential systems enhancements. This could take a number of years to develop. Regardless of whether Qwest were to develop this new call record and enhance the current systems to handle the changes or develop a separate manual process, it will require additional capital expense based solely on Level 3's interest to change the existing call record requirements that to this point all other carriers in the industry follow.

Q. WHY SHOULD QWEST'S DEFINITION OF CALL RECORD BE USED IN THE ICA BETWEEN LEVEL 3 AND QWEST?

A. Qwest's definition of call record should be used because it includes the fundamental information that is required to create a valid call record and the flexibility to include other data that that may be used to rate and bill calls for intercarrier compensation purposes. In addition, Qwest uses terms that are specific enough to identify what is required while at the same time remaining flexible enough to encompass all of the optional parameters that Level 3 wishes to require should they eventually become industry requirements. Unlike

Level 3's language, Qwest's language does not include call information that would create disputes over the interpretation of the terms used in the definition. Likewise, Qwest's language eliminates any potential dispute as to whether the existence of call duration and the time and date a call occurred are required in a valid call record. Simply put, Qwest's language addresses all of Level 3's concerns, more clearly establishes the expectations of both companies for the creation of a valid call record, and has the flexibility to include additional call information that may be required to generate a valid call record in the future.

VII. DISPUTED ISSUE NO. 20: SIGNALING PARAMETERS

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 20.

A. The issue at dispute here is what SS7 signaling information should be required for the exchange of traffic between Qwest and Level 3.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following:

> 7.3.8 Signaling Parameters: Qwest and CLEC are required to provide each other the proper signaling information (e.g., originating Calling Party Number and destination called party number, etc.) per 47 CFR 64.1601 to enable each Party to issue bills in a complete and timely fashion. All CCS signaling parameters will be provided including Calling Party Number (CPN), Originating Line Information Parameter (OLIP) on calls to 8XX telephone numbers, calling party category, Charge Number, etc. All privacy indicators will be honored. If either Party fails to provide CPN (valid originating information), and cannot substantiate technical restrictions (i.e., MF signaling) such traffic will be billed as Switched Access. Traffic sent to the other Party without CPN (valid originating information) will be handled in the following manner. The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and Exchange Access (IntraLATA Toll) traffic delivered to the other Party. The Switch owner will

provide to the other Party, upon request, information to demonstrate that Party's portion of no-CPN traffic does not exceed five percent (5%) of the total traffic delivered. The Parties will coordinate and exchange data as necessary to determine the cause of the CPN failure and to assist its correction. All Exchange Service (EAS/Local) and IntraLATA LEC Toll calls exchanged without CPN information will be billed as either Exchange Service (EAS/Local) Traffic or IntraLATA LEC Toll Traffic in direct proportion to the minutes of use (MOU) of calls exchanged with CPN information for the preceding quarter, utilizing a PLU factor determined in accordance with Section 7.2.2.9.3.2 of this Agreement.

7.3.8 Signaling Parameters: Qwest and CLEC are required to provide each other the proper signaling information (e.g., originating Calling Party Number and destination called party number, etc.) per 47 CFR 64.1601 to enable each Party to issue bills in a complete and timely fashion. All CCS signaling parameters will be provided including Calling Party Number (CPN), Originating Line Information Parameter (OLIP) on calls to 8XX telephone numbers, calling party category, Charge Number, etc. All privacy indicators will be honored. If either Party fails to provide CPN (valid originating information), and cannot substantiate technical restrictions (i.e., MF signaling) such traffic will be billed as Switched Access. Traffic sent to the other Party without CPN (valid originating information) will be handled in the following manner. The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and IntraLATA LEC Toll traffic delivered to the other Party. The Switch owner will provide to the other Party, upon request, information to demonstrate that Party's portion of no-CPN traffic does not exceed five percent (5%) of the total traffic delivered. The Parties will coordinate and exchange data as necessary to determine the cause of the CPN failure and to assist its correction. All Exchange Service (EAS/Local) and IntraLATA LEC Toll calls exchanged without CPN information will be billed as either Exchange Service (EAS/Local) Traffic or IntraLATA LEC Toll Traffic in direct proportion to the minutes of use (MOU) of calls exchanged with CPN information for the preceding quarter, utilizing a PLU factor determined in accordance with Section 7.2.2.9.3.2 of this Agreement.

Q. DOES QWEST HAVE ANY MODIFICATIONS TO ITS PROPOSED LANGUAGE?

A. Yes. To clarify 7.3.8 Qwest wishes to replace the following sentence:

All CCS signaling parameters will be provided including Calling Party Number (CPN), Originating Line Information Parameter (OLIP) on calls to 8XX telephone numbers, calling party category, Charge Number, etc.

With the following sentence:

> All CCS signaling parameters will be provided including Calling Party Number (CPN), Originating Line Information Parameter (OLIP), calling party category, Charge Number, etc. on calls to 8XX telephone numbers.

The preceding changes are only intended to clarify the sentence structure.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

> 7.3.8 Signaling Parameters: Qwest and CLEC are required to provide each other proper signaling information (e.g., originating Calling Record Information and destination called party number, etc.) to enable each Party to issue bills in a complete and timely fashion. All CCS signaling parameters will be provided including Call Record Information (CRI), Originating Line Information Parameter (OLIP) on calls to 8XX telephone numbers, calling party category, Charge Number, etc. All privacy indicators will be honored. If either Party fails to provide CRI (valid originating information), and cannot substantiate technical restrictions (e.g., MF signaling, IP origination, etc.) such traffic will be billed as interstate Switched Access. Transit Traffic sent to the other Party without CRI (valid originating information) will be handled in the following manner. The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and Exchange Access (IntraLATA Toll) traffic delivered to the other Party. The Switch owner will provide to the other Party, upon request, information to demonstrate that Party's portion of no-CRI traffic does not exceed five percent (5%) of the total traffic delivered. The Parties will coordinate and exchange data as necessary to determine the cause of the CRI failure and to assist its correction. All Exchange Service (EAS/Local) and Exchange Access calls exchanged without CRI information will be billed as either Exchange Service (EAS/Local) Traffic or Exchange Access Traffic in direct proportion to the minutes of use (MOU) of calls exchanged with CRI information for the preceding quarter, utilizing a PLU factor determined in accordance with Section 7.2.2.9.3.2 of this Agreement.

> 7.3.8 Signaling Parameters: Qwest and CLEC are required to provide each other proper signaling information (e.g., originating Calling Record Information and destination called party number, etc.) to enable each Party to issue bills in a complete and timely fashion. All CCS signaling parameters will be provided including Call Record Information (CRI), Originating Line Information Parameter (OLIP) on calls to 8XX telephone numbers, calling party category, Charge Number, etc. All privacy indicators will be honored. If

either Party fails to provide CRI (valid originating information), and cannot substantiate technical restrictions (e.g., MF signaling, IP origination, etc.) such traffic will be billed as interstate Switched Access. Transit Traffic sent to the other Party without CRI (valid originating information) will be handled in the following manner. The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and Exchange Access (IntraLATA Toll) traffic delivered to the other Party. The Switch owner will provide to the other Party, upon request, information to demonstrate that Party's portion of no-CRI traffic does not exceed five percent (5%) of the total traffic delivered. The Parties will coordinate and exchange data as necessary to determine the cause of the CRI failure and to assist its correction. All Exchange Service (EAS/Local) and Exchange Access calls exchanged without CRI information will be billed as either Exchange Service (EAS/Local) Traffic or Exchange Access Traffic in direct proportion to the minutes of use (MOU) of calls exchanged with CRI information for the preceding quarter, utilizing a PLU factor determined in accordance with Section 7.2.2.9.3.2 of this Agreement.

Q. WHY DOES QWEST OBJECT TO LEVEL 3'S PROPOSED LANGUAGE?

A. Qwest objects to Level 3's language because it mischaracterizes *IP origination* (emphasis added) as a technical limitation to providing signaling parameters. Level 3's proposed language also creates an obligation to populate a signaling parameter, specifically Call Record Information ("CRI"), which does not exist within the SS7 protocol. In addition, Level 3 does not define CRI. To the extent Level 3's definition of CRI would use similar terms as are used in Level 3's definition of Call Record, it is not at all clear that the requirement to provide the CRI can be met. Level 3's proposed language also fails to acknowledge that the FCC has recognized certain limitations exist that prohibit or limit the delivery of specific types of signaling information. Qwest further objects to Level 3's language because it inappropriately applies interstate switched access rates onto traffic that is intrastate.

Q. WHY IS IT NOT NECESSARY TO ADDRESS VOIP ORIGINATED TRAFFIC AS LEVEL 3 PROPOSES?

A. Voice over Internet Protocol ("VoIP") uses a different protocol than is used by the operators of the PSTN. Because of the different protocols, a conversion from the Internet Protocol ("IP") to the Time Division Multiplex ("TDM") protocol of the PSTN is required to enable a voice call to be established between an IP network and the PSTN. However, the PSTN does not currently have the ability to determine if traffic was originated in IP, at what point the conversion from IP to TDM takes place, or if the traffic was originated with TDM protocol. As the testimony of Larry Brotherson explains, the ESP exemption allows an ESP such as VoIP service providers to establish a POP within a local calling area and receive service that is treated as local service. It is the FCC's ESP exemption and the existence of a standard signaling protocol that eliminates the need to identify VoIP traffic as a signaling requirement. Thus, industry standards have not been established that specify signaling as the method to identify VoIP traffic.

Q. IS IT TRUE THAT VOIP IS A TECHNICAL RESTRICTION FOR PROVIDING CPN?

A. Absolutely not. Contrary to Level 3's petition and their proposed language, there is no technical limitation that would prevent Level 3 from populating CPN for VoIP originated traffic. In fact, VoIP traffic is subject to all of the same limitations as any PSTN originated call after the IP to TDM conversion takes place and the traffic enters the PSTN. All limitations that are identified by Qwest's language apply once the traffic enters the PSTN.

Level 3 is attempting to make VoIP traffic more than it really is. It is just a voice call that is routed and transported with a different protocol until the protocol changes at which point it is like any other TDM call.

Q. HAS THERE BEEN AN INDUSTRY STANDARD DEVELOPED TO ADDRESS VOIP ORIGINATED CALLS?

A. No. Level 3 wishes to address the signaling of VoIP traffic even though there has been no industry standard established to address the identification of VoIP originated traffic. Until such time as an industry standard is developed, the industry must use the existing standards for signaling traffic through the PSTN and the well established FCC ESP exemption rules that determine how the traffic from VoIP service providers is treated. Level 3 is attempting to jump the gun with regard to the identification of VoIP originated traffic by putting into place a signaling solution for the identification of VoIP originated traffic that benefits only itself and not the needs of the industry as a whole. It has yet to be determined by industry standards whether signaling is the most appropriate solution for identifying VoIP originating traffic.

Q. HOW DOES LEVEL 3'S PROPOSED LANGUAGE CREATE A SIGNALING PARAMETER THAT DOES NOT EXIST?

A. Section 7.3.8 addresses signaling parameters. Level 3 seems to be attempting to create a new signaling parameter called CRI by including the reference to CRI in the list of SS7 signaling parameters. There is no such signaling parameter as CRI that exists in the SS7 protocol. Level 3's proposed language, however, attempts to prematurely redefine

signaling that occurs between two networks and changes the meaning and intent of the language to encompass all call record information that might exist within signaling protocols.

Q. WHAT WOULD BE INVOLVED IN THE CREATION OF A NEW SIGNALING PARAMETER?

A. The creation of a new signaling parameter would be a colossal undertaking. The industry would first have to come to agreement on the definition of the parameter. Once the parameter was defined by the industry then all vendors and carriers that use the SS7 protocol in their equipment and network would have to incorporate the new protocol parameter. This would have to occur for all existing and new signaling equipment. This would include modification to practically every switch in the United States and would also impact other countries to the same extent that SS7 is used outside of the United States. This could take years to implement and tens of millions of dollars. In addition, some carriers may not utilize the parameter and others may expect to be compensated for transporting the additional data.

Q. DOES LEVEL 3 DEFINE CRI?

A. No. One of the problems Qwest has with CRI is that Level 3 does not define the term in its proposed contract language. Since Level 3 does not define CRI, its meaning in the ICA would then be left open for dispute.

Q. WHAT PROBLEMS WOULD ARISE IF CRI WERE TO BE DEFINED BY THE SAME INFORMATION THAT IS USED BY LEVEL 3 TO DEFINE CALL RECORD?

A. The same problems that arise in issue No. 8 would arise here. In addition, call records and signaling serve different functions. Call signaling is real time data that is used to set up and release calls across the PSTN. Call records are generated using post call processing and are used for the purposes of billing. Although call records may include some signaling related information, call records include information that is not provided within the signaling stream such as date, time, and call duration that are captured outside the signaling stream. Level 3 has made section 7.3.8 more confusing and more cumbersome to manage by inserting call record information that may not exist in the signaling protocol.

Q. WHAT PROBLEMS DOES QWEST SEE IF LEVEL 3 WERE TO DEFINE ONLY THE SIGNALING PARAMETERS AS ARE USED IN LEVEL 3'S DEFINITION OF CALL RECORD?

A. While Level 3 identifies several signaling parameters in its definition, there is only one call parameter that could always have a substantial impact on the creation of a call record. This is the Calling Party Number ("CPN") parameter. The CPN parameter is the number of the party that places a call i.e. the "from" number. Level 3's language inserts signaling parameters that may or may not be present thus making a call record that would otherwise be valid for billing purposes invalid. Based on Level 3's definition of call record, a call that is missing signaling information which would normally contain enough information to

create a call record would be classified as a no-CRI by Level 3. For example, if a local call is routed to Level 3 with the called party number and the calling party number present in the signaling stream, under Level 3's language, this local call would be defined as a no-CRI call because according to Level 3's language it lacks either a Charge Number or the Originating Line Indicator. Typically, local calls are not signaled with Charge Number or OLI. It is for these reasons that Level 3's language will lead to disputes over what signaling information is necessary for billing.

Q. IS RATING NO-CPN TRAFFIC BASED ON "INTERSTATE SWITCHED ACCESS RATES" APPROPRIATE AS PROPOSED BY LEVEL 3?

A. No. Qwest opposes Level 3's proposal to route interstate switched access over LIS trunks as my testimony explains for issue 2. Therefore, interstate switched access charges would not be appropriately applied to No-CPN traffic.

Q. WHY IS QWEST'S LANGUAGE MORE APPROPRIATE?

A. Qwest's language uses terms that are clearly defined by the contract and the industry. Qwest language provides clear expectations for the signaling of traffic between the parties' networks.

VIII. SUMMARY/CONCLUSION

1 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

2 A. Although complex at times, the issues of my testimony revolve around three issues: 1)
3 Level 3's ability to establish a SPOI in a LATA; and 2) the types of traffic that may be
4 combined on interconnection trunks; and 3) the call information that should be required in
5 a call record.

6 Although, Level 3's ability to establish a SPOI is more about compensation for providing
7 interconnection facilities, the FCC contemplated the logistics for interconnecting two
8 networks when it required LECs to provide interconnection. It recognized that each carrier
9 must be able to retain responsibility for the management, control, and performance of its
10 network. The FCC also acknowledges that networks had interconnected prior to the
11 Telecommunications Act of 1996. In support of its recognition of maintaining network
12 reliability and interoperability, and the existence of network interconnections, the FCC
13 acknowledged certain logical methods to interconnect networks such as cross connect
14 points and main distribution frames as technically feasible points of interconnection.
15 Qwest provides such technical feasible points for the purpose of interconnection with
16 Qwest's network. However, Level 3's proposed language attempts to forgo these well
17 established arrangements nor for technical reasons, but in an attempt to avoid the cost of
18 interconnection.

19 As to the types of traffic that can be carried on interconnection trunk groups, Qwest has
20 attempted to be responsive to Level 3's desire to combine traffic on trunk groups. Qwest is
21 willing to allow all traffic types, with the exception of switched access traffic, to be carried

over LIS trunks. The law is also clear about interexchange traffic and the requirement for Qwest to provide switched access services to IXCs for such interexchange traffic. Because of billing issues, systems issues and Qwest's obligation to provide jointly provided switched access records to other ILECs and CLECs, Qwest requires that switched access traffic be carried over Feature Group trunks. This is entirely consistent with Section 251(g) of the Act which requires that Qwest provide interconnection for the exchange of switched access traffic in the same manner that it provided for such traffic prior to the passage of the Act. Nonetheless, Qwest has attempted to accommodate Level 3's desire for network efficiencies by agreeing to let Level 3 combine all of its traffic over Feature Group D trunks. This solution achieves the efficiencies sought by Level 3 while at the same time allowing Qwest to continue to use its existing billing systems and processes. For these reasons, Level 3's proposed combining of traffic on LIS trunks should be rejected.

Finally, a call record must include certain fundamental information to create a record for billing purposes. Although there are some technical limitations in some cases that prohibit the identification of the origination of a call, Level 3 attempts to go beyond the fundamental information and create requirements for a call record that may not legitimately be provided. Qwest's definition provides for all of the fundamental information needed in a call record and at the same time provides the flexibility to accept additional information to create a call record which may be used for billing. Level 3 goes beyond what is recognized by the industry and then inappropriately places financial penalties for non-compliance.

Q. Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

EXHIBIT
Q 16
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

JEFF HATCH-MILLER
Chairman
MARC SPITZER
Commissioner
WILLIAM A. MUNDELL
Commissioner
MIKE GLEASON
Commissioner
KRISTIN MAYES
Commissioner

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	Docket No. T-03654A-05-0350 T-01051B-05-0350

REBUTTAL TESTIMONY OF PHILIP LINSE

ON BEHALF OF

QWEST CORPORATION

(Disputed Issue Nos. 1, 2, 3, 6, 8, AND 20)

August 15, 2005

TABLE OF CONTENTS

I. IDENTIFICATION OF WITNESS 1

II. PURPOSE OF TESTIMONY 1

III. DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION 2

IV. DISPUTED ISSUES NO. 2A AND 2 B: ALL TRAFFIC ON INTERCONNECTION TRUNKS 14

V. DISPUTED ISSUE NO. 3: VNXX TRAFFIC 19

VI. DISPUTED ISSUE NO. 6: AMA SWITCH TECHNOLOGY 27

VII. DISPUTED ISSUE NO. 8: DEFINITION OF CALL RECORD 28

VIII. DISPUTED ISSUE NO. 20: SIGNALING PARAMETERS 33

IX. SUMMARY/CONCLUSION 35

I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH QWEST CORPORATION.

A. My name is Philip Linse. My business address is 700 West Mineral Avenue, Littleton Colorado. I am employed as Director – Technical Regulatory in the Network Policy Organization. I am testifying on behalf of Qwest Corporation ("Qwest").

Q. ARE YOU THE SAME PHILIP LINSE THAT PROVIDED DIRECT TESTIMONY IN THIS ARBITRATION?

A. Yes I am.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to respond to the testimonies of Mr. Ducloo and Mr. Gates with respect to technical matters related to certain disputed issue between the parties. My testimony will address the following issues from the Matrix of Unresolved Issues filed by Level 3 in this arbitration:

- Issue 1: Costs of Interconnection
- Issue 2: Combining Traffic on Interconnection Trunks
- Issue 6: AMA and Switch Technology

- Issue 8: Definition of Call Record
- Issue 20: Signaling Parameters

In portions of my testimony that follow, where Level 3 proposes modifications to Qwest's language, I have underlined the language Level 3 wishes to delete or add.

III. DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION

Issue No. 1A

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1A.

A. Issue 1A involves disputed language regarding points of interconnection. Level 3 mischaracterizes the issue as having to do with its right to interconnect at a single point in the LATA and Qwest's obligation on its side of the point of interconnection ("POI"). However, Qwest does not dispute that Level 3 can establish a single POI in a Qwest LATA. The POI is not the real issue here. The real issue is whether Qwest should be required to provide interconnection where it is not technically feasible or to provision/build such transport facilities to Level 3 without compensation. My testimony will explain where Level 3 concurs with Qwest, why this language is important from a technical perspective, and why there is still dispute regarding this issue.

Q. WHAT LANGUAGE DOES QWEST PROPOSE?

A. Qwest proposes the following language, which is also found on page 65 of the ICA filed by Qwest on June 7th, 2005.

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Exchange Service (EAS/Local traffic), Exchange Access (IntraLATA Toll carried solely by local exchange carriers), ISP-Bound traffic, and Jointly Provided Switched Access (InterLATA and IntraLATA) traffic. Qwest will provide Interconnection at any Technically Feasible point within its network. Interconnection, which Qwest currently names "Local Interconnection Service" (LIS), is provided for the purpose of connecting End Office Switches to End Office Switches or End Office Switches to local or Access Tandem Switches for the exchange of Exchange Service (EAS/Local traffic); or End Office Switches to Access Tandem Switches for the exchange of Exchange Access (IntraLATA Toll carried solely by local exchange carriers) or Jointly Provided Switched Access traffic. Qwest Tandem Switch to CLEC Tandem Switch connections will be provided where Technically Feasible. New or continued Qwest local Tandem Switch to Qwest Access Tandem Switch and Qwest Access Tandem Switch to Qwest Access Tandem Switch connections are not required where Qwest can demonstrate that such connections present a risk of Switch exhaust and that Qwest does not make similar use of its network to transport the local calls of its own or any Affiliate's End User Customers.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following:

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Telecommunications Including Telephone Exchange Service And Exchange Access traffic. Qwest will provide Interconnection at any Technically Feasible point within its network.

7.1.1.1 **Establishment of SPOI**: Qwest agrees to provide CLEC a Single Point of Interconnection (SPOI) in each Local Access Transport Area (LATA) for the exchange of all telecommunications traffic. The SPOI may be established at any mutually agreeable location within the LATA, or, at Level 3's sole option, at any technically feasible point on Qwest's network. Technically feasible points include but are not limited to Qwest's end offices, access tandem, and local tandem offices.

7.1.1.2 **Cost Responsibility.** Each Party is responsible for constructing, maintaining, and operating all facilities on its side of the SPOI, subject only to the payment of intercarrier compensation in accordance with Applicable Law. In accordance with FCC Rule 51.703(b), neither Party may assess any charges on the other Party for the origination of any telecommunications delivered to the other Party at the SPOI, except for

Telephone Toll Service traffic outbound from one Party to the other when the other Party is acting in the capacity of a provider of Telephone Toll Service, to which originating access charges properly apply.

7.1.1.3 Facilities included/transmission rates. Each SPOI to be established under the terms of this Attachment shall be deemed to include any and all facilities necessary for the exchange of traffic between Qwest's and Level 3's respective networks within a LATA. Each Party may use an Entrance Facility (EF), Expanded Interconnect Channel Termination (EICT), or Mid Span Meet Point of Interconnection (POI) and/or Direct Trunked Transport (DTT) at DS1, DS3 , OC3 or higher transmission rates as, in that Party's reasonable judgment, is appropriate in light of the actual and anticipated volume of traffic to be exchanged. If one Party seeks to establish a higher transmission rate facility than the other Party would establish, the other Party shall nonetheless reasonably accommodate the Party's decision to use higher transmission rate facilities.

7.1.1.4 Each Party Shall Charge Reciprocal Compensation for the Termination of Traffic to be carried. All telecommunications of all types shall be exchanged between the Parties by means of from the physical facilities established at Single Point of Interconnection Per LATA onto its Network Consistent With Section 51.703 of the FCC's Rules:

7.1.1.4.1 Level 3 may interconnect with Qwest at any technically feasible point on Qwest's network for the exchange of telecommunications traffic. Such technically feasible points include but are not limited to Qwest access tandems or Qwest local tandems. When CLEC is interconnected at the SPOI. separate trunk groups for separate types of traffic may be established in accordance with the terms hereof. No separate physical interconnection facilities, as opposed to separate trunk groups within SPOI facilities, shall be established except upon express mutual agreement of the Parties.

Q. THROUGHOUT HIS TESTIMONY MR. GATES SUGGESTS THAT QWEST REQUIRES LEVEL 3 TO ESTABLISH MULTIPLE POIS PER LATA. DOES QWEST REQUIRE MULTIPLE POIS PER LATA?

A. No. Qwest's proposed language does not force Level 3 to establish more than a single POI per LATA.

1 **Q. MR. GATES ALSO SUGGESTS THAT QWEST WISHES TO MAKE LEVEL 3**
2 **DUPLICATE QWEST'S NETWORK. DOES QWEST'S PROPOSED LANGUAGE**
3 **FORCE LEVEL 3 TO DUPLICATE QWEST'S NETWORK?**
4 A. No. Qwest's proposed language allows Level 3 to establish a single POI in each LATA
5 and provides Level 3 with multiple options to interconnect the Level 3 network with the
6 Qwest network. Level 3's POI may be located at a Point of Presence ("POP") location
7 where its equipment is located, collocated within Qwest's Central office, or at a mid-way
8 point between Level 3's POP and Qwest's central office. Level 3 can provision its own
9 interconnection facilities through Collocation in a Qwest central office or have Qwest
10 provision entrance facilities to Level 3's POI located at its POP. A mid-span meet-point
11 option is also available where Qwest and Level 3 both build facilities to a meet-point near
12 the halfway point between Level 3's Point of Presence and Qwest's network. None of
13 these interconnection options force Level 3 to duplicate Qwest's network.

14 **Q. IN HIS TESTIMONY, MR. GATES SUGGESTS THAT QWEST IS REQUIRING**
15 **LEVEL 3 TO INTERCONNECT AT EACH AND EVERY SWITCH IN THE**
16 **QWEST NETWORK. IS THAT AN ACCURATE DESCRIPTION OF QWEST'S**
17 **POSITION?**
18 A. No. As I explained in my direct testimony, Level 3 has several options for interconnection.
19 Single Point of Presence ("SPOP") is a Qwest wholesale product that provides Level 3 with
20 LIS trunking that allows as few as one trunk connection with Qwest's access tandem for
21 the delivery of local traffic. SPOP is provided over any of the interconnection facility

1 options my testimony describes above. This type of interconnection trunking has been
2 offered to and used by CLECs for several years.

3 **Q. IN HIS DIRECT TESTIMONY MR. GATES MISCHARACTERIZES A POI AS**
4 **BOTH THE PHYSICAL AND FINANCIAL DEMARCATION POINT. PLEASE**
5 **EXPLAIN THE DIFFERENCE BETWEEN A FINANCIAL DEMARCATION**
6 **POINT AND A PHYSICAL DEMARCATION POINT.**

7 A. A financial demarcation point is where financial responsibilities for network facilities are
8 divided. As I explained in my direct testimony, a POI is a physical demarcation point
9 between the Level 3 and Qwest networks. Although, the POI is the physical location
10 where networks interconnect, the financial responsibility of the interconnection facilities is
11 shared based upon the interconnection option chosen.

12 **Q. IS LEVEL 3 OBJECTING TO ESTABLISHING INTERCONNECTION WITH**
13 **MULTIPLE SWITCHES IN QWEST'S NETWORK?**

14 A. No. Mr. Ducloo states that Level 3 is willing to establish interconnection with Qwest's
15 local tandem for delivery of local traffic as well as with end office switches when traffic
16 volumes justify such direct trunking.

17 **Q. WHY SHOULD QWEST'S PROPOSED LANGUAGE BE ADOPTED?**

18 A. Qwest's language more clearly and appropriately distributes the cost of interconnection.
19 As Mr. Ducloo states:

20 As a contractual matter, the parties agree that the cost of facilities used to connect
21 their networks will be split based on relative use, so that cost responsibility

> follows in proportion to which party originates which portion of traffic on the affected facilities.[1]

Level 3's proposed language does not reflect the testimony that has been given by Mr. Ducloo. Level 3's proposed language does not even discuss relative use. Accordingly, Qwest's language must be adopted since it is the only language setting forth the terms of relative use.

Issue No. 1B

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1B.

A. Issue 1B involves disputed language in which Level 3 incorrectly proposes methods of establishing a POI that are actually methods of interconnection.

Q. WHAT LANGUAGE DOES QWEST PROPOSE?

A. Qwest proposes the following, as found on page 67 of the ICA:

> **7.1.2 Methods of Interconnection**
>
> The Parties will negotiate the facilities arrangement used to interconnect their respective networks. CLEC shall establish at least one (1) physical Point of Interconnection in Qwest territory in each LATA CLEC has local Customers. The Parties shall establish, through negotiations, at least one (1) of the following Interconnection arrangements, at any Technically Feasible point: (1) a DS1 or DS3 Qwest provided facility; (2) Collocation; (3) negotiated Mid-Span Meet POI facilities; or (4) other Technically Feasible methods of Interconnection, such as an OCn Qwest provided facility, via the Bona Fide Request (BFR) process unless a particular arrangement has been previously provided to a third party, or is offered by Qwest as a product. OCn Qwest provided facilities may be ordered through FCC Tariff No. 1.

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following:

[1] Direct testimony of Mr. Ducloo Page 7 Line 18 through Page 8 Line 2

7.1.2 Methods of Interconnection

CLEC may establish a POI through: (1) a collocation site established by CLEC at a Qwest wire center, (2) a collocation site established by a third party at Qwest wire center, or (3) transport (and entrance facilities where applicable).

CLEC shall establish one POI at any technically feasible point on Qwest's network within each LATA in which CLEC desires to exchange traffic directly with Qwest by any of the following methods:

1. a collocation site established by CLEC at a Qwest Wire Center,
2. a collocation site established by a third party at Qwest Wire Center, or;
3. transport (and entrance facilities where applicable) ordered and purchased by CLEC from Qwest; or,
4. Fiber meet point.

CLEC shall establish one POI on Qwest's network in each LATA. POIs may be established by CLEC through:

1. a collocation site established by CLEC at a Qwest Wire Center,
2. a collocation site established by a third party at Qwest Wire Center,
3. transport (and entrance facilities where applicable) ordered and purchased by CLEC from Qwest at the applicable Qwest intrastate access rates and charges; or,
4. Fiber meet point.

Q. HAVE LEVEL 3'S WITNESSES ADDRESSED THE LANGUAGE SPECIFIC TO THIS ISSUE?

A. No. Level 3's witnesses do not specifically discuss either Level 3's proposed language or Qwest's proposed language. Level 3's proposed language confuses the methods of obtaining interconnection with establishment of its POI "within" Qwest's network. In contrast, Qwest's proposed language appropriately explains how interconnection takes place and describes the methods that may be used for interconnection.

1 **Q. WHAT ARE THE THREE TYPICAL ARRANGEMENTS FOR**
2 **INTERCONNECTION?**
3 A. I have attached exhibits PL 3, 4 and 5 which illustrate the options that Qwest currently
4 provides that enable Level 3 to interconnect its network with Qwest's network. As I have
5 explained in my direct testimony these methods include Collocation, Entrance Facilities,
6 and Mid-span Meet-point as well as any technically feasible method of interconnection.

7 **Q. ARE THESE METHODS OF INTERCONNECTION AVAILABLE TO LEVEL 3'S**
8 **SINGLE POI IN THE LATA?**
9 A. Yes. Each interconnection method may be used to interconnect Qwest's network with
10 Level 3's SPOI.

11 **Q. DOES QWEST REQUIRE LEVEL 3 TO PROVISION SEPARATE FACILITIES**
12 **TO ESTABLISH TRUNKING BETWEEN LEVEL 3'S POI AND QWEST'S END**
13 **OFFICES AS MR. DUCLOO CONTENDS IN HIS DIRECT TESTIMONY?**
14 A. Not at all. As I explained in my direct testimony, Qwest provides Direct Trunked
15 Transport ("DTT") so that Level 3 does not have to build separate facilities to Qwest's end
16 offices. Qwest's DTT product will provide Level 3 with the appropriate trunking capacity
17 so that Level 3 may establish interconnection trunking with Qwest's end offices as needed
18 by Level 3. DTT is provided to Level 3 using Qwest's existing facilities and can be
19 provisioned to Level 3's single POI in the LATA.

Q. IS MR. GATES CORRECT WHEN HE STATES THAT EACH CARRIER IS REALLY ONLY ABLE TO CONTROL THE COSTS AND ACTIVITIES ON ITS OWN NETWORK AND NOT ON THE OTHER PARTY'S NETWORK?

A. Absolutely not. Level 3's interconnection imposes costs on Qwest's network and requires Qwest to undertake additional activities to manage the interconnection. Qwest is required to build/provision interconnection facilities to Level 3's POI. Although these costs are shared, there is no doubt that Qwest's costs are directly impacted by the CLEC that requests interconnection. In addition, the ongoing management of that interconnection imposes costs on Qwest's network. Forecasting and trunk monitoring are just two additional activities that Qwest must take on when CLECs interconnect with Qwest. To say that each carrier only controls the costs of its own network is wrong.

Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?

A. Qwest language more appropriately reflects the interconnection between Qwest's network and Level 3's network. Unlike Level 3's language, Qwest's language does not confuse what is required to create a POI with what is realistically required to interconnect two networks.

Issue No. 1F

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1F.

A. Level 3 removes the language describing how Level 3 may interconnect at Qwest local and access tandem switches. Level 3 also removes the requirement for Level 3 to establish trunking as requested by Qwest where traffic volumes justify alternate trunking.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following, as found on page 80 of the ICA:

> 7.2.2.9.6 The Parties shall terminate Exchange Service (EAS/Local) traffic on Tandem Switches or End Office Switches. CLEC may interconnect at either the Qwest local tandem or the Qwest access tandem for the delivery of local exchange traffic. When CLEC is interconnected at the access tandem and when there is a DS1 level of traffic (512 BHCCS) over three (3) consecutive months between CLEC's Switch and a Qwest End Office Switch, Qwest may request CLEC to order a direct trunk group to the Qwest End Office Switch. CLEC shall comply with that request unless it can demonstrate that such compliance will impose upon it a material adverse economic or operations impact. Furthermore, Qwest may propose to provide Interconnection facilities to the local Tandem Switches or End Office Switches served by the Access Tandem Switch at the same cost to CLEC as Interconnection at the Access Tandem Switch. If CLEC provides a written statement of its objections to a Qwest cost-equivalency proposal, Qwest may require it only: (a) upon demonstrating that a failure to do so will have a material adverse affect on the operation of its network and (b) upon a finding that doing so will have no material adverse impact on the operation of CLEC, as compared with Interconnection at such Access Tandem Switch.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

> 7.2.2.9.6 When CLEC is interconnected at the access tandem and when there is a DS1 level of traffic (512 BHCCS) over three (3) consecutive months between CLEC's Switch and a Qwest End Office Switch, Qwest may request CLEC to order a direct trunk group to the Qwest End Office Switch. Notwithstanding references to Qwest's ability to requests that CLECs order direct trunk groups to the Qwest end office, nothing in this agreement shall be construed to require CLEC to pay Qwest for any services or facilities on Qwest's side of the POI in connection with the origination of traffic from Qwest to CLEC; and nothing herein shall be construed to require CLEC to pay for any services or facilities on Qwest's side of the POI in connection with the termination of traffic from CLEC by Qwest, other than reciprocal compensation payments as provided in this Agreement.

1 **Q. WHY IS QWEST OPPOSED TO THE LEVEL 3 LANGUAGE?**

2 A. As I explained in my direct testimony, Level 3 has removed the language that specifies
3 tandems and end offices as points where traffic is delivered. Level 3's proposed language
4 ignores the existing architecture of the public switched network and creates ambiguity that
5 may lead to later disputes because there are no other locations on Qwest's network where
6 traffic may be delivered.

7 **Q. DOES QWEST HAVE OTHER CONCERNS ABOUT LEVEL 3'S PROPOSED**
8 **LANGUAGE FOR SECTION 7.2.2.9.6?**

9 A. Yes. Although Level 3 also believes there is benefit in direct trunking, Level 3 holds to its
10 originally proposed language that removes the requirement to establish trunking to
11 subtending network switches when increases in traffic volumes justify the alternate
12 trunking. As discussed below, Level 3 admits to the benefits of direct trunking, yet still
13 proposes to remove the language that requires this fundamental network management and
14 maintenance process that benefits all interconnecting carriers (including Level 3).

15 **Q. WHY DO YOU SAY LEVEL 3'S TESTIMONY ACKNOWLEDGES THE**
16 **REASONABLENESS OF QWEST'S LANGUAGE THAT REQUIRES DIRECT**
17 **TRUNKING TO ALTERNATE SWITCHES WHEN TRAFFIC VOLUMES**
18 **JUSTIFY?**

19 A. The direct testimony of Mr. Ducloo explains that Level 3 sees the value in direct trunking
20 to alternate switches when traffic volumes justify. Mr. Ducloo states: "that when total
21 traffic between Level 3 and a particular Qwest end office switch reaches a certain

1 reasonable volume, we (Level 3) will establish a direct trunk group between that end office
2 and Level 3." (Page 6 Lines 4-6) Mr. Ducloo also agrees on page 47 of his direct
3 testimony:

> 4 It is standard practice in the circuit-switched telephone industry to establish direct
> 5 trunks between switches when the level of traffic between them exceeds a certain
> 6 level. Given this, Level 3 is perfectly willing to work with Qwest to avoid the
> 7 problem of tandem overload by jointly engineering separate trunk groups that go
> 8 directly between Level 3 and those Qwest end offices with enough traffic to
> 9 justify the direct trunking. These are known in the industry as "Direct End Office
> 10 Trunks," or DEOTs.

11 On page 48 of his testimony Mr. Ducloo states:

> 12 With DEOTs, even though the total number of trunks will be higher than would
> 13 be the case in a single massive trunk group, Qwest is able to avoid the use of
> 14 tandem switching and to cut down on the total number of trunk ports it has to use.
> 15 Level 3 is certainly willing to work with Qwest to permit Qwest to obtain those
> 16 network efficiencies.

17 In addition, Mr. Ducloo states on page 51:

> 18 What avoids exhausting Qwest's tandem is establishing DEOTs to carry ***all*** the
> 19 traffic from Level 3 to a Qwest end office on an efficient basis. Level 3 is willing
> 20 to do this.

21 Finally Mr. Ducloo states on page 53:

> 22 "As I note elsewhere in my testimony, Level 3 is not averse to establishing
> 23 multiple physical points of interconnection in a LATA when *traffic levels*
> 24 (emphasis added) and other factors so warrant..."

25 Thus, Level 3 and Qwest agree on this issue. However, Level 3's proposed language does
26 not capture their agreement.

Q. HAS LEVEL 3 PROVIDED ANY EXPLANATION AS TO WHY LEVEL 3 HAS REMOVED THE QWEST PROPOSED LANGUAGE THAT PROVIDES FOR THE TERMINATION OF TRAFFIC AND INTERCONNECTION AT QWEST'S TANDEMS AND END OFFICES?

A. No. Level 3 has not provided any testimony explaining why Level 3 proposes to delete Qwest's proposed language in section 7.2.2.9.6.

Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?

A. Qwest's language for issue 1F (section 7.2.2.9.6) should be adopted because it more appropriately represents the positions of the parties as reflected in their respective direct testimony.

IV. DISPUTED ISSUES NO. 2A AND 2 B: ALL TRAFFIC ON INTERCONNECTION TRUNKS

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 2.

A. Issue 2 concerns the types of traffic that may be combined over LIS trunks and whether Qwest is entitled to compensation for the interconnection trunks it provides to Level 3.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest is proposing the following language, as found on page 78 of the ICA:

> 7.2.2.9.3.1 Exchange Service (EAS/Local), ISP-Bound Traffic, IntraLATA LEC Toll, VoIP traffic and Jointly Provided Switched Access (InterLATA and IntraLATA Toll involving a third party IXC) may be combined in a single LIS trunk group or transmitted on separate LIS trunk groups.

7.2.2.9.3.1.1 If CLEC utilizes trunking arrangements as described in Section 7.2.2.9.3.1, Exchange Service (EAS/Local) traffic shall not be combined with Switched Access, not including Jointly Provided Switched Access, on the same trunk group, i.e. Exchange Service (EAS/Local) traffic may not be combined with Switched Access Feature Group D traffic to a Qwest Access Tandem Switch and/or End Office Switch.

7.2.2.9.3.2 CLEC may combine originating Exchange Service (EAS/Local) traffic, ISP-Bound Traffic, IntraLATA LEC Toll, VoIP Traffic and Switched Access Feature Group D traffic including Jointly Provided Switched Access traffic, on the same Feature Group D trunk group.

7.2.2.9.3.2.1 CLEC shall provide to Qwest, each quarter, Percent Local Use (PLU) factor(s) that can be verified with individual call detail records or the Parties may use call records or mechanized jurisdictionalization using Calling Party Number (CPN) information in lieu of PLU, if CPN is available. Where CLEC utilizes an affiliate's Interexchange Carrier (IXC) Feature Group D trunks to deliver Exchange Service (EAS/Local) traffic with interexchange Switched Access traffic to Qwest, Qwest shall establish trunk group(s) to deliver Exchange Service (EAS/Local), Transit, and IntraLATA LEC Toll to CLEC. Qwest will use or establish a POI for such trunk group in accordance with Section 7.1.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A: Level 3 proposes the following language:

7.2.2.9.3.1 Where CLEC exchanges Telephone Exchange Service, Exchange Access Service, Telephone Toll Service, and Information Services traffic with Qwest over a single interconnection network, CLEC agrees to pay Qwest, on Qwest's side of the POI, state or federally tariffed rates applicable to the facilities charges for InterLATA and/or InterLATA traffic in proportion to the total amount of traffic exchanged over such interconnection facility. Otherwise each party remains 100% responsible for the costs of its interconnection facilities on its side of the POI. Thus, by way of illustration only, where 20% of such traffic is interLATA (intrastate and interstate) and the remaining 80% is Section 251(b)(5) Traffic, CLEC would pay Qwest an amount equal to 20% of the applicable tariffed transport rate that would apply to a tariffed facility used solely for the exchange of such access traffic for such traffic exchanged on Qwest's side of the POI over a single interconnection trunk.

Except as expressly provided in Section 7.3.1.1.3, each party shall bear all costs of interconnection on its side of the network in accordance with 47 C.F.R. § 51.703. Accordingly, unless otherwise expressly authorized according to Section 7.3.1.1.3,

neither Party may charge the other (and neither Party shall have an obligation to pay) any recurring and/or nonrecurring fees, charges or the like (including, without limitation, any transport charges), associated with the exchange of any telecommunications traffic including but not limited to Section 251(b)(5) Traffic on its side of the POI.

Each party is solely responsible for any and all costs arising from or related to establishing and maintaining the interconnection trunks and facilities it uses to connect to the POI. Thus, neither party shall require the other to bear any additional costs for the establishment and operation of interconnection facilities that connect its network to its side of the POI. If traffic is combined, Section 7.3.9 of this Agreement applies.

7.2.2.9.3.2 *CLEC may combine* Exchange Service (EAS/Local) traffic, ISP-Bound Traffic, Exchange Access (IntraLATA Toll carried solely by Local Exchange Carriers), VoIP Traffic and Switched Access Feature Group D traffic including Jointly Provided Switched Access traffic, on the same Feature Group D trunk group or over the same interconnection trunk groups as provided in Section 7.3.9.

Q. HAS LEVEL 3 SPECIFICALLY ADDRESSED THE PROPOSED LANGUAGE THAT IS IN DISPUTE WITH ISSUE NO. 2?

A. No. Level 3's direct testimony never criticizes any specific Qwest language or even explains its own specific language in any detail.

Q. IS IT TRUE THAT QWEST WANTS LEVEL 3 TO PROVISION SEPARATE TRUNK GROUPS AS STATED IN THE TESTIMONY OF MR. DUCLOO?

A. No. In fact, Qwest has specifically proposed language (section 7.2.2.9.3.2) that allows Level 3 to provision a single Feature Group D trunk group for the routing of access and local traffic. Accordingly, Qwest is not an outlier on this issue as Mr. Ducloo portrays Qwest to be.

1 **Q. IS MR. DUCLOO'S DIRECT TESTIMONY CORRECT WHERE HE CONCLUDES**
2 **THAT QWEST WOULD REQUIRE LEVEL 3 TO ESTABLISH SEPARATE**
3 **TRUNKS FOR IP-ENABLED TRAFFIC?**
4 A. No. Qwest's proposed language does not require Level 3 to establish separate trunks for
5 IP-enabled traffic.

6 **Q. MR. DUCLOO ANALOGIZES THE TELECOMMUNICATIONS NETWORK TO**
7 **A HIGHWAY AND EXPLAINS THAT IT WOULD BE INEFFICIENT TO BUILD**
8 **TWO HIGHWAYS NEXT TO EACH OTHER BOTH GOING TO THE SAME**
9 **PLACE. PLEASE COMMENT ON MR. DUCLOO'S ANALOGY.**
10 A. Although it may seem inefficient to build two highways going to the same place, this is
11 often done to provide people with transportation options. For example, there are often
12 separate toll and non-toll highways. The characteristics of these types of highways also
13 resemble the way the telecommunications network works.

14 A toll highway operator has a method of collecting usage charges that is not used by a
15 non-toll highway operator. This is similar to the relationship between the method for
16 collecting usage charges for switched access trunking and local trunking. Charges for
17 switched access trunking are accomplished through switched access billing. Qwest's local
18 trunking does not have this same capability. Level 3's proposal to route switched access
19 over local trunk groups creates a difficulty analogous to the collection of usage charges on
20 a non-toll highway. On a non-toll highway there are no toll booths and no people to take
21 and record the toll charges.

1

2 **Q. WOULD LEVEL 3 OBTAIN THE SAME TRUNK GROUP EFFICIENCIES BY**
3 **ROUTING LOCAL TRAFFIC TO FGD TRUNK GROUPS?**
4 A. Yes. Level 3 would experience the same trunk group efficiencies by routing its local traffic
5 to Qwest over FGD trunking.

6 **Q. ARE THERE CIRCUMSTANCES WHERE LEVEL 3 IS WILLING TO**
7 **ESTABLISH FGD TRUNKING WITH QWEST?**
8 A. Yes. Mr. Ducloo agrees that if Level 3 were to route its IXC traffic over LIS that third
9 party LECs would receive inadequate information to render access bills. Mr. Ducloo's
10 testimony agrees that Level 3 will send this traffic to Qwest's tandems where adequate
11 recording for the third parties can be made. The recordings that Level 3 is referring to are
12 the same recordings that are only provided via FGD trunking. Thus, because, Level 3 has
13 agreed to use FGD trunking for the purposes of delivering this third party traffic, there
14 would be no reason that Level 3 would have not to also route its local traffic to this same
15 FGD trunking. Therefore, the Commission should adopt Qwest's proposed language that
16 allows Level 3 to route local and access traffic over FGD trunking.

17 **Q. DO THE DIRECT TESTIMONIES OF MR. DUCLOO AND MR. GATES**
18 **INCORRECTLY SPECULATE AS TO QWEST'S ABILITY TO EFFICIENTLY**
19 **MANAGE ITS NETWORK'S TRUNK CAPACITY?**
20 A. Yes. The testimony of Mr. Ducloo and Mr. Gates inappropriately and incorrectly speculate
21 that Qwest either over estimates network capacity demands or under estimates network

capacity demands, suggesting that Qwest does not efficiently manage its network. Mr. Ducloo and Mr. Gates couldn't be further from the truth. Qwest has processes and procedures to efficiently maintain network capacities for both wholesale and retail network demand. In addition, Qwest has quarterly forecasting meetings with CLECs so that network capacity can be made available or decommissioned in a timely manner. Furthermore, Qwest collaborated with CLECs and state commissions to create Performance Indicator Definitions ("PIDs") regarding the provisioning of LIS. For example, the Ordering and Provisioning ("OP") PIDs provide measurement of Qwest's ability to provision service in an efficient manner. Where PID Measurements are not met, Qwest's Performance Assurance Plan ("PAP") triggers a self executing payment to CLECs and/or State commissions.

V. DISPUTED ISSUE NO. 3: VNXX TRAFFIC

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 3B.

A. Issue number 3B concerns the agreement's definition of VNXX traffic. My testimony will reply to Level 3's testimony on this issue.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following, as found on page 32 of the ICA:

> "VNXX Traffic" is all traffic originated by the Qwest End User Customer that is not terminated to CLEC's End User Customer physically located within the same Qwest Local Calling Area (as approved by the state Commission) as the originating caller, regardless of the NPA-NXX dialed and, specifically, regardless of whether CLEC's End User Customer is assigned an NPA-NXX associated with a rate center in which the Qwest End User Customer is physically located.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

VNXX Traffic shall include the following:

ISP-bound VNXX traffic is telecommunications over which the FCC has exercised exclusive jurisdiction under Section 201 of the Act and to which traffic a compensation rate of $0.0007 / MOU applies. ISP-bound VNXX traffic uses geographically independent telephone numbers ("GITN"), and thus the telephone numbers associated with the calling and called parties may or may not bear NPA-NXX codes associated with the physical location of either party. This traffic typically originates on the PSTN and terminates to the Internet via an Internet Service Provider ("ISP").

VoIP VNXX traffic is telecommunications over which the FCC has exercised exclusive jurisdiction under Section 201 of the Act and to which traffic a compensation rate of $0.0007 / MOU applies. VoIP VNXX traffic uses geographically independent telephone numbers ("GITN"), and thus the telephone numbers associated with the calling and called parties may or may not bear NPA-NXX codes associated with the physical location of either party. Because VoIP VNXX traffic originates on the Internet, the physical location of the calling and called parties can change at any time. For example, VoIP VNXX traffic presents billing situations where the (i) caller and called parties are physically located in the same ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with different ILEC LCAs; (ii) caller and called parties are physically located in the same ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with the same ILEC LCAs; (iii) caller and called parties are physically located in the different ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with same LEC LCAs; and (iv) caller and called parties are physically located in the different ILEC retail (for purposes of offering circuit switched "local telephone service") local calling area and the NPA-NXX codes associated with each party are associated with different ILEC LCAs. Examples of VoIP VNXX traffic include the Qwest "One Flex" service and Level 3's (3)VoIP Enhanced Local service.

Circuit Switched VNXX traffic is traditional "telecommunications services" associated with legacy circuit switched telecommunications providers, most of which built their networks under monopoly regulatory structures that evolved around the turn of the last century. Under this scenario, costs are apportioned according to the belief that bandwidth is scarce and transport expensive. The ILEC offers to a customer the ability to obtain a "local" service (as defined in the ILEC's retail tariff) by paying for dedicated transport between the physical location of the customer and the physical location of the NPA-

NXX. Thus, this term entirely describes a service offered by ILECs, but which cannot be offered by IP-based competitors as such networks do not dedicate facilities on an end-to-end basis.

Q. *DID YOU ADDRESS VNXX IN YOUR DIRECT TESTIMONY?*

A. No. I am addressing VNXX here because of inconsistencies and inaccuracies in the testimony filed by Level 3's witnesses.

Q. MR. GATES EXPLAINS THAT ISPS PURCHASE SERVICES FROM CARRIERS IN THE LOCAL CALLING AREAS WHERE THEY HAVE OR DESIRE CUSTOMERS. DOES LEVEL 3 PROVIDE SERVICE TO ISPS IN THESE SAME LOCAL CALLING AREAS?

A. No. Level 3 does not, in most cases, provide services to its ISP customers within the local calling areas that ISPs have or desire customers. By that I mean that Level 3 has no physical presence (nor do its ISP customers) in many (probably the vast majority) of the local calling areas where they purport to serve. Instead, Level 3 inappropriately assigns numbers to its ISP customers that do not reflect the local calling area in which the ISP is located, thereby allowing Level 3 to avoid (and pass on to Qwest) the additional costs associated with provisioning local service to its ISP customers. By doing this, Level 3 avoids actually provisioning facility-based services to the local calling areas in which Level 3 claims to provide local service.

1 **Q. DOES LEVEL 3 VIOLATE INDUSTRY GUIDELINES BY ASSIGNING NUMBERS**
2 **IN THE WAY YOU HAVE DESCRIBED?**
3 A. Yes. There are industry rules that dictate the different types of numbers and how numbers
4 are to be assigned.

5 **Q. HOW WERE THE RULES FOR ASSIGNING NUMBERS ESTABLISHED?**
6 A. In 1995, prior to the passage of the 1996 Act, the FCC created the North American
7 Numbering Council ("NANC"), which makes recommendations to the FCC on numbering
8 issues and oversee the North American Numbering Plan ("NANP"). At the same time, the
9 FCC also created the North American Numbering Plan Administrator ("NANPA"), an
10 impartial entity that is responsible for assigning and administering telecommunications
11 numbering resources in an efficient and non-discriminatory manner. Thus NANPA is
12 responsible for allocating NPA and NXX codes. Under FCC rules, NANPA is directed to
13 administer numbering resources in an efficient and non-discriminatory manner, *and* in
14 accordance with the guidelines developed by INC (the North American Industry
15 Numbering Committee).[2]

16 **Q. ARE THE "GUIDELINES" DEVELOPED BY INC INTENDED TO BE MERE**
17 **GUIDELINES THAT CAN BE DISREGARDED?**
18 A. No. INC guidelines are really more than just guidelines because the adherence to them is
19 an FCC mandate.[3] The Alliance for Telecommunications Industry Solutions (ATIS) has
20 published a set of INC guidelines entitled "Central Office Code (NXX) Assignment

[2] 47 C.F.R. § 52.13(b) and (d)
[3] 47 C.F.R. § 52.13(d)

1 Guidelines (COCAG)." Level 3's method of assigning numbers (i.e., its use of VNXX) is
2 in violation of these industry guidelines, which designate NPA-NXX codes as
3 geographically-specific.

4 **Q. WHAT PROVISIONS OF THE COCAG DEFINE NPA NXX CODES AS**
5 **GEOGRAPHICALLY SPECIFIC?**

6 A. Section 2.14 of the COCAG states that "CO [central office] codes/blocks allocated to a
7 wireline service provider are to be utilized to provide service to a customer's premise
8 *physically located* in the same rate center that the CO codes/blocks are assigned.
9 Exceptions exist, such as for tariffed services like foreign exchange services." (Emphasis
10 added.) Mr. Gates' direct testimony at pages 43 and 44 references this section. However,
11 VNXX is not identified as an exception, and is certainly not an "exception" as it is
12 provisioned by Level 3 without local service in the rate center that the codes/ blocks are
13 assigned.

14 **Q. ARE THERE OTHER PROVISIONS IN THE COCAG THAT SPECIFY A**
15 **GEOGRAPHIC CORRELATION WITH NUMBERS?**

16 A. Yes. Section 4.2.6 of the COCAG provides that "[t]he numbers assigned to the facilities
17 identified must serve subscribers in the *geographic area corresponding with the rate center*
18 *requested*." (Emphasis added.)

Q. DOES THE COCAG DISTINGUISH BETWEEN GEOGRAPHIC NUMBERS AND NON-GEOGRAPHIC NUMBERS?

A. Yes. The COCAG also states that "Geographic NPAs" are the "NPAs which correspond to discrete geographic areas within the NANP" while "Non-geographic NPAs" are "NPAs that do not correspond to discrete geographic areas, but which are instead assigned for services with attributes, functionalities, or requirements that transcend specific geographic boundaries, the common examples [of which] are NPAs in the N00 format, e.g., 800."

Q. DOES LEVEL 3 APPROPRIATELY ASSIGN NUMBERS TO ITS CUSTOMERS OF VNXX SERVICE ACCORDING TO INC GUIDELINES?

A. No. The numbers that Level 3 use are geographic NPA numbers – in other words, they are numbers that should, according to guidelines, correspond to discrete geographic areas. But under Level 3's inappropriate assignment of these numbers, they no longer reflect a specific geographic location. Callers who dial a Level 3 "local" number would not reach anyone in the local calling area – rather, they would be transported over Qwest's LIS network to Level 3's switch, and then on to an ISP's equipment (e.g., modems, routers, and servers) that may be in a different local calling area in the state, or in another state entirely. This use of numbers violates industry guidelines.

Q. DOES LEVEL 3'S PERSPECTIVE OF ITS VNXX SERVICE COMPORT WITH THE INDUSTRY NUMBERING GUIDELINES?

A. Not at all. As explained above, the industry numbering guidelines recognize that there are numbers that are geographic in nature and others that are non-geographic in nature. The

determination of whether a NPA NXX is geographic or non-geographic is based on the NPA digits that precede the NXX digits. Geographic numbers are the numbers that most people associate with their wireline service. Non-geographic numbers are numbers that have NPA digits such as 800 or 900. However, Level 3 has chosen to use geographic numbers to facilitate a non-geographically provisioned service.

Q. IS THE DIRECT TESTIMONY OF MR. GATES CORRECT WHEN HE EQUATES THE ROUTING OF VNXX TRAFFIC TO THAT OF FX TRAFFIC?

A. No. Mr. Gates incorrectly equates VNXX calls with foreign exchange ("FX") calls. Mr. Gates fails to recognize that non-VNXX calls, such as those placed to a subscriber of FX service, are associated with services that are provisioned to the customer from within the local calling area where the traffic originates. For example, the FX call that originates with an end user in local calling area (LCA) A but is destined for an end user located in LCA B is actually placed by dialing a number associated with local service physically provisioned in LCA A. The call is routed to an FX service in LCA A, where it is then transported to LCA B. The end user subscribing to FX service in this example must establish local service in LCA A and pay rates that are intended to cover the additional costs associated with transporting the call from LCA A to LCA B. In contrast, with Level 3's VNXX service, Level 3 simply ***assigns*** numbers to its customers that are associated with wire centers outside the end user's local calling area. In doing so, Level 3's VNXX service relies on Qwest to the transport the traffic between local calling areas. Level 3 incorrectly

1 asserts that Qwest must provide this transport to Level 3 for free, ostensibly because the
2 transport is on Qwest's side of the POI.

3 **Q. MR. DUCLOO CONTENDS THAT SWITCHES HAVE NO WAY OF KNOWING**
4 **THE GEOGRAPHIC LOCATIONS ASSOCIATED WITH THE PHONE**
5 **NUMBERS ASSIGNED TO A SWITCH. DOES MR. DUCLOO MISREPRESENT**
6 **HOW NUMBERS ARE ASSIGNED?**

7 A. Yes. If Mr. Ducloo's method of assigning telephone codes/blocks to switches, were taken
8 to its logical conclusion, all switches should recognize all telephone numbers as local calls.
9 Mr. Ducloo misses the concept that a switch only "knows" what is programmed into it.
10 Switch programming determines what is local and what is toll. This programming is based
11 on decades of regulatory precedent that distinguished local and toll calls based on
12 geographic boundaries such as local calling area, EAS boundaries and LATA boundaries.
13 These geographic boundaries are either established by federal courts or approved by the
14 state commissions and remain a significant feature of the telecommunications environment
15 in which all industry participants operate today. To imply that geographic location makes
16 no difference is absurd. The history of the telecommunications industry and its method of
17 regulation are fundamentally based on the geographic location of end users.

Q. ALTHOUGH LEVEL 3'S TESTIMONY DOES NOT ADDRESS MOST OF MR. DUCLOO'S EXHIBITS, DO THE EXHIBITS CORRECTLY REPRESENT THE FX SERVICE THAT QWEST PROVIDES?

A. No. RRD #10 does not correctly represent FX service. Mr. Ducloo only depicts local service provisioned to customers within each LCA. Mr. Ducloo also attempts to depict FX service provisioned using multiple switches including tandem switches. Switching for Qwest FX service is never provisioned using switching other than what is provided by the switch from which local service is purchased by the subscriber. In addition, exhibits RRD #11 and #13 are labeled as local service but depict non-local call flows.

Furthermore, Mr. Ducloo's exhibits are not consistent with Level 3's own advocacy. On exhibit RRD #15, Level 3 shows Qwest as being compensated for its transport to the CLEC switch but, as is described in the discussion of Issue No. 1, Level 3 argues that Qwest must pay for this transport outside of the local calling area since it is on Qwest's "side" of the POI.

VI. DISPUTED ISSUE NO. 6: AMA SWITCH TECHNOLOGY

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 6.

A. This issue was never a point of contention during the negotiation of the interconnection agreement and only became an issue when Level 3 filed its petition. Level 3 also did not address this language in their direct testimony. The issue in dispute is Level 3's objection to use the term "inherent in Switch technology" within the definition of Automated

Message Accounting ("AMA"). Level 3 disputes the use of the language "inherent in Switch technology."

Q. DOES QWEST STILL AGREE WITH LEVEL 3'S PROPOSED LANGUAGE CHANGE?

A. Yes.

VII. DISPUTED ISSUE NO. 8: DEFINITION OF CALL RECORD

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 8.

A. Disputed issue No. 8 concerns what call information must be provided in a call record so that the record may be used for intercarrier billing purposes. Level 3 agrees that there are some instances when some signaling information may not always be available. Nevertheless, a call record must include certain fundamental information to create a record for billing purposes.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following, as found on page 13 of the ICA:

> "Call Record" means a record that provides key data about individual telephone calls. It includes originating telephone number, terminating telephone number, billing telephone number (if different from originating or terminating number) time and date of call, duration of call, long distance carrier (if applicable), and other data necessary to properly rate and bill the call.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

"Call Record" shall include identification of the following: charge number, Calling Party Number ("CPN"), Other Carrier Number ("OCN"), or Automatic Number Identifier ("ANI"), Originating Line Indicator ("OLI"). In the alternative, a "Call Record" may include any other information agreed upon by both Parties to be used for identifying the jurisdictional nature of the calling party or for assessing applicable intercarrier compensation charges.

Q. WHY IS QWEST OPPOSED TO LEVEL 3'S PROPOSED DEFINITION OF A CALL RECORD?

A. Level 3's definition of a call record obligates both parties to provide certain types of information about a call that has never been required by industry standards and may not be available on every call. Level 3's proposed language would require call information that is not necessary for the creation of a call record and yet omits information that should be required for the creation of a call record.

Q. DO LEVEL 3'S WITNESSES ADDRESS LEVEL 3'S DEFINITION OF CALL RECORD IN THEIR TESTIMONY?

A. No not specifically. Mr. Ducloo only addresses it to the extent that Level 3 proposes to populate the OLI parameter in the signaling stream and in a brief discussion of the process for billing intercarrier compensation. Level 3 otherwise is silent on what information should be required in a call record.

Q. DOES MR. DUCLOO DESCRIBE THE INFORMATION THAT SHOULD BE CONTAINED IN A CALL DETAIL RECORD?

A. Yes. In his direct testimony, Mr. Ducloo describes information that is consistent with Qwest's definition of a call record. For example, Mr. Ducloo lists calling number (i.e.

1 originating telephone number), the dialed number (i.e. terminating telephone number),
2 carrier delivering the call (i.e. long distance carrier) time that the call starts and stops (i.e.
3 time and date of call, duration of call) as appropriate for inclusion in a call detail record.
4 These are also elements in Qwest's proposed call record definition. However, Level 3's
5 proposed definition does not include all of the elements Mr. Ducloo listed in his testimony.
6 Based on Level 3's testimony, it is clear that Qwest's proposed definition of call record
7 more appropriately represents the fundamental information that belongs in a call record.

8 **Q. IN HIS DIRECT TESTIMONY, MR. DUCLOO CONCLUDES THAT THERE ARE**
9 **PRECEDENTS FOR POPULATING UNUSED SS7 FIELDS AND CODES. HAS**
10 **QWEST POPULATED UNUSED SIGNALING PARAMETERS OR REQUIRED**
11 **INTERCONNECTING CARRIERS TO POPULATE UNUSED SIGNALING**
12 **PARAMETERS THAT ARE UNDEFINED BY THE INDUSTRY?**

13 A. No. Qwest has not established these types of processes because of the future impact it may
14 have to Qwest's network if and when particular unused parameters become defined
15 differently by the industry. If a signaling parameter becomes defined differently by the
16 industry than the way network operators have decided to use the parameter, then the
17 operators must change their network to be compliant with the industry change. They must
18 then find a new way of accomplishing the original purpose for populating the unused
19 signaling parameter. Using signaling parameters in the way that Level 3 proposes will only
20 cause unnecessary up-front costs and magnify future costs when the changes must be made
21 to the network.

1 **Q. DOES MR. DUCLOO THEN PROVIDE A PRECEDENT FOR THE POPULATION**
2 **OF UNUSED SS7 FIELDS?**
3 A. No. Mr. Ducloo provides an example of population of a call record, not population of a
4 signaling parameter.

5 **Q. HAVE INDUSTRY STANDARDS GROUPS RECOMMENDED THE OLI**
6 **PARAMETER BE USED TO IDENTIFY VOIP TRAFFIC?**
7 A. No. In fact industry standards groups such as the AMA Technical Support Group
8 ("AMASTG") have recommended against the use of the OLI signaling parameter for the
9 purposes of identifying VoIP traffic.[4] Identification of VoIP traffic though the signaling
10 stream is only one of several proposals that the industry has identified.[5] Based on the
11 activity at the industry level, it is clear that the issue of developing a method for identifying
12 VoIP traffic is being addressed. Level 3, however, wishes to include the OLI as a method
13 of identifying VoIP in its agreement with Qwest. Thus, Level 3 is attempting to create a
14 de facto standard that appears to have been all but dismissed by industry standards groups.
15 It is more appropriate for Level 3 to represent its position in the industry standards forums
16 that have been established to address these types of issues than try to unilaterally force their
17 industry rejected opinion through an interconnection agreement.

---

[4] Exhibit PL6 Letter dated February 4th 2005 from the AMASTG to the Alliance for Telecommunications Industry Solutions Ordering and Billing Forum Billing Committee, Subject OBF Issue 2776: Identification of VoIP-Originated Calls.

[5] Exhibit PL7 Letter dated May 9th 2005 from the Alliance for Telecommunications Industry Solutions Ordering and Billing Forum Billing Committee to the Alliance for Telecommunications Industry Solutions Packet Technologies and Systems Committee ("PTSC"), Subject OBF Issue 2776: Identification of VoIP-Originated Calls.

1 **Q. DOES LEVEL 3'S LANGUAGE FORCE QWEST TO POPULATE THE OLI**
2 **PARAMETER?**
3 A. Yes. Although the testimony of Mr. Ducloo suggests that it is only Level 3 that wishes to
4 populate the OLI parameter, Level 3's proposed call record definition language does not
5 make this distinction. Accordingly, Level 3's definition of call record should be rejected.

6 **Q. WHY SHOULD QWEST'S DEFINITION OF CALL RECORD BE USED IN THE**
7 **INTERCONNECTION AGREEMENT BETWEEN LEVEL 3 AND QWEST?**
8 A. Qwest's definition of call record should be used because it includes the fundamental
9 information that is required to create a valid call record and provides flexibility to include
10 other data that may be used to rate and bill calls for intercarrier compensation purposes. In
11 addition, Qwest uses terms that are specific enough to identify what is required while at the
12 same time remaining flexible enough to encompass all of the optional parameters that
13 Level 3 wishes to require should they eventually become industry requirements. Unlike
14 Level 3's language, Qwest's language does not include call information that would create
15 disputes over the interpretation of the terms used in the definition. Likewise, Qwest's
16 language eliminates any potential dispute as to whether the existence of call duration and
17 the time and date a call occurred are required in a valid call record. Simply put, Qwest
18 language addresses all of Level 3's concerns, more clearly establishes the expectations of
19 both companies for the creation of a valid call record, and has the flexibility to include
20 additional call information that may be required to generate a valid call record in the future.

VIII. DISPUTED ISSUE NO. 20: SIGNALING PARAMETERS

Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 20.

A. The issue in dispute here is whether SS7 signaling is an appropriate method for signaling call information for the exchange of traffic between Qwest and Level 3.

Q. WHAT LANGUAGE IS QWEST PROPOSING?

A. Qwest proposes the following, on page 87 of the ICA:

> 7.3.8 Signaling Parameters: Qwest and CLEC are required to provide each other the proper signaling information (e.g., originating Calling Party Number and destination called party number, etc.) per 47 CFR 64.1601 to enable each Party to issue bills in a complete and timely fashion. All CCS signaling parameters will be provided including Calling Party Number (CPN), Originating Line Information Parameter (OLIP), calling party category, Charge Number, etc. on calls to 8XX telephone numbers. All privacy indicators will be honored. If either Party fails to provide CPN (valid originating information), and cannot substantiate technical restrictions (i.e., MF signaling) such traffic will be billed as Switched Access. Traffic sent to the other Party without CPN (valid originating information) will be handled in the following manner. The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and Exchange Access (IntraLATA Toll) traffic delivered to the other Party. The Switch owner will provide to the other Party, upon request, information to demonstrate that Party's portion of no-CPN traffic does not exceed five percent (5%) of the total traffic delivered. The Parties will coordinate and exchange data as necessary to determine the cause of the CPN failure and to assist its correction. All Exchange Service (EAS/Local) and IntraLATA LEC Toll calls exchanged without CPN information will be billed as either Exchange Service (EAS/Local) Traffic or IntraLATA LEC Toll Traffic in direct proportion to the minutes of use (MOU) of calls exchanged with CPN information for the preceding quarter, utilizing a PLU factor determined in accordance with Section 7.2.2.9.3.2 of this Agreement.

Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

A. Level 3 proposes the following:

7.3.8 Signaling Parameters: Qwest and CLEC are required to provide each other proper signaling information (e.g., originating Calling Record Information and destination called party number, etc.) to enable each Party to issue bills in a complete and timely fashion. All CCS signaling parameters will be provided including Call Record Information (CRI), Originating Line Information Parameter (OLIP) on calls to 8XX telephone numbers, calling party category, Charge Number, etc. All privacy indicators will be honored. If either Party fails to provide CRI (valid originating information), and cannot substantiate technical restrictions (e.g., MF signaling, IP origination, etc.) such traffic will be billed as interstate Switched Access. Transit Traffic sent to the other Party without CRI (valid originating information) will be handled in the following manner. The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and Exchange Access (IntraLATA Toll) traffic delivered to the other Party. The Switch owner will provide to the other Party, upon request, information to demonstrate that Party's portion of no-CRI traffic does not exceed five percent (5%) of the total traffic delivered. The Parties will coordinate and exchange data as necessary to determine the cause of the CRI failure and to assist its correction. All Exchange Service (EAS/Local) and Exchange Access calls exchanged without CRI information will be billed as either Exchange Service (EAS/Local) Traffic or Exchange Access Traffic in direct proportion to the minutes of use (MOU) of calls exchanged with CRI information for the preceding quarter, utilizing a PLU factor determined in accordance with Section 7.2.2.9.3.2 of this Agreement.

Q. DID LEVEL 3 ADDRESS THIS SECTION IN ITS TESTIMONY?

A. No. None of Level 3's witnesses have provided testimony in support for their proposed language for section 7.3.8.

Q. PLEASE DESCRIBE AGAIN WHY QWEST OBJECTS TO LEVEL 3'S PROPOSED LANGUAGE?

A. Qwest objects to Level 3's language because it mischaracterizes ***IP origination*** (emphasis added) as a technical limitation for populating signaling information in the SS7 signaling stream. Level 3's proposed language also creates an obligation to populate a signaling parameter, specifically Call Record Information ("CRI"), which does not exist within the SS7 protocol. In addition, Level 3 does not define CRI. To the extent Level 3's definition of CRI would use similar terms to those used in Level 3's definition of Call Record, it is

not at all clear that the requirement to provide the CRI can be met. Level 3's proposed language also fails to acknowledge the fact that the FCC has recognized certain limitations exist that prohibit or limit the delivery of specific types of signaling information. Qwest further objects to Level 3 language because it inappropriately applies interstate switched access rates to traffic that is intrastate as is described in Issue 2.

Q. WHY IS QWEST'S LANGUAGE MORE APPROPRIATE?

A. Qwest's language uses terms that are clearly defined by the contract and the industry. Qwest language provides clear expectations for the signaling of traffic between the parties' networks.

IX. SUMMARY/CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My testimony has responded to the testimony of Level 3's witnesses relating to technical matters concerning: 1) the manner of interconnection; and 2) the types of traffic that may be combined on interconnection trunks; and 3) the appropriate assignment of numbering resources and the associated routing of local calls; and 4) the call information that should be required in a call record.

The FCC has recognized that each carrier must be able to retain responsibility for the management, control, and performance of its network. Qwest provides technical feasible points for the purpose of interconnection with Qwest's network. However, Level 3's

1 proposed language attempts to shun these well established arrangements, not for technical
2 reasons, but in an attempt to avoid paying the cost that interconnection inevitably imposes
3 on the existing network.

4 Qwest has attempted to be responsive to Level 3's desire to combine traffic on trunk
5 groups. Qwest has attempted to accommodate Level 3's desire for network efficiencies by
6 agreeing to allow Level 3 to combine all of its traffic to Qwest over Feature Group D
7 trunks. This solution achieves the efficiencies sought by Level 3 while at the same time
8 allowing Qwest to continue to use its existing billing systems and processes. For these
9 reasons, Level 3's proposed combining of traffic on LIS trunks should be rejected.

10 The FCC and state commissions have recognized certain jurisdictional boundaries for
11 telecommunications traffic. These jurisdictional boundaries have been incorporated into
12 virtually every aspect of the telecommunications network, from the routing of traffic and
13 provisioning of facilities to end users to the interconnection of carriers with other carriers.
14 Accordingly, until industry wide changes are made, the Qwest/Level 3 interconnection
15 agreement should continue to require that the assignment of telephone numbers be based
16 on the local calling areas associated with those numbers.

17 Finally, a call record must include certain fundamental information to create a record for
18 billing purposes. Qwest's definition provides for all the fundamental information needed
19 in a call record and at the same time provides the flexibility to accept additional
20 information to create a call record which may be used for billing. Level 3 goes beyond

1 what is recognized by the industry and then inappropriately places financial penalties for
2 non-compliance.

3 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

4 A. Yes it does.

5
6 1699908/67817.259

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION PURSUANT TO SECTION 252 (b) OF THE TELECOMMUNICATIONS ACT OF 1996	)	**DOCKET NO. T-03654A-05-0350 T-01051B-05-0350**
STATE OF COLORADO COUNTY OF ARAPAHOE	)	**AFFIDAVIT OF PHILIP LINSE**
	:	**SS**

Philip Linse, of lawful age being first duly sworn, depose and states:

1. My name is Philip Linse. I am Director for Qwest Corporation in Littleton, Colorado. I have caused to be filed written rebuttal testimony in Docket No. **T-03654A-05-0350 T-01051B-05-0350.**

2. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.

Further affiant sayeth not.

Philip A. Linse

SUBSCRIBED AND SWORN to before me this 9th day of August, 2005.

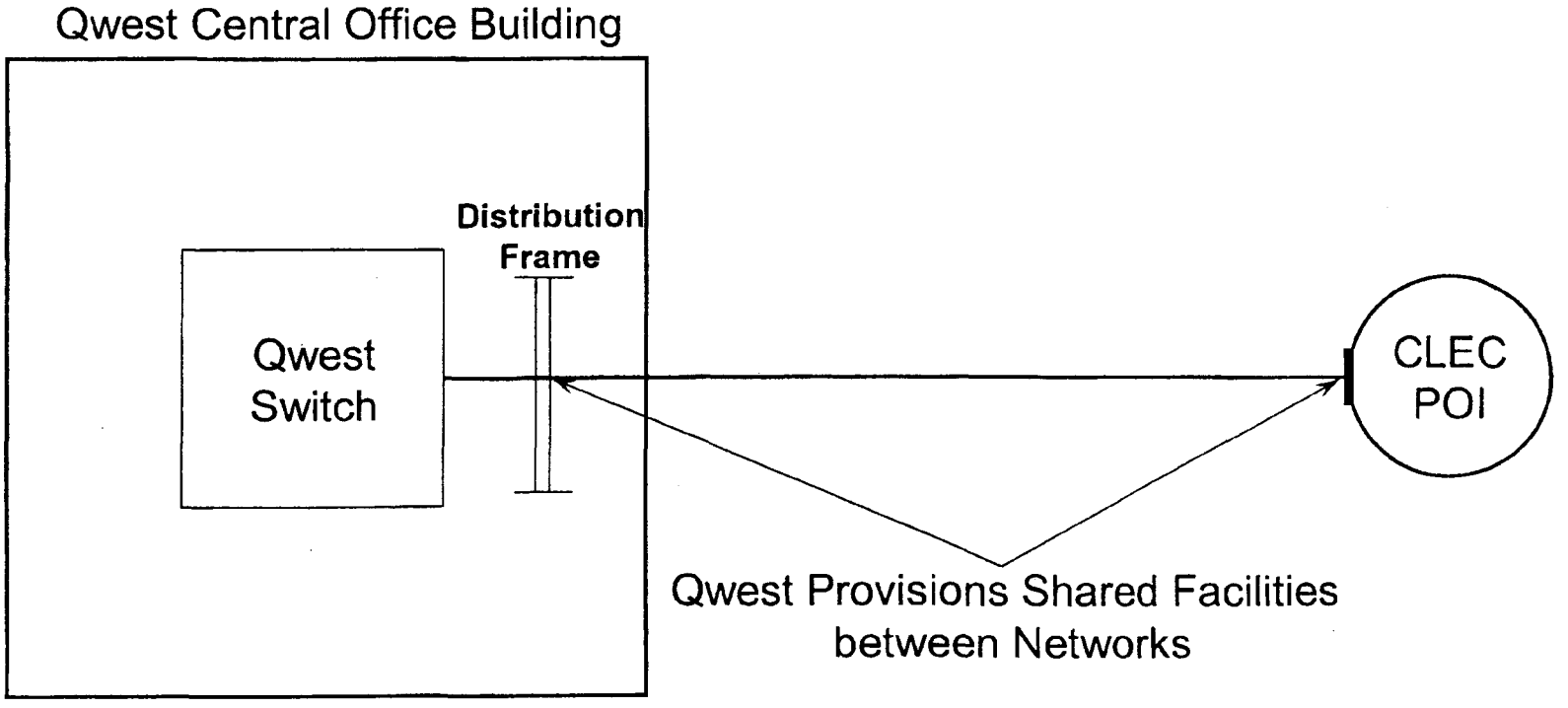
Notary Public

My Commission Expires: 4/5/08

DONNA GOLDMAN
STATE OF COLORADO
NOTARY PUBLIC

EXHIBIT
PL 3

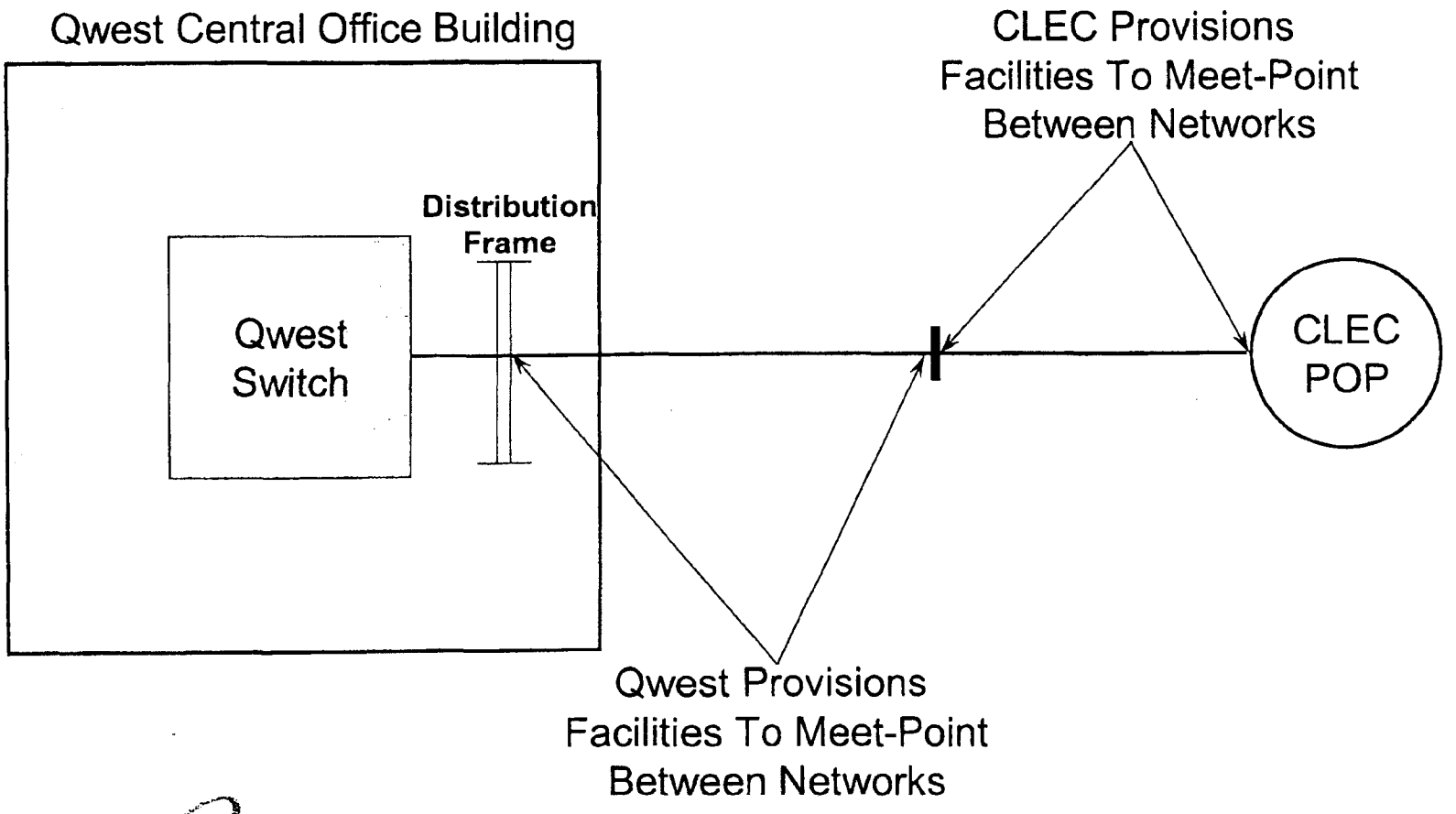
Entrance Facilities



Qwest

EXHIBIT
PL 4

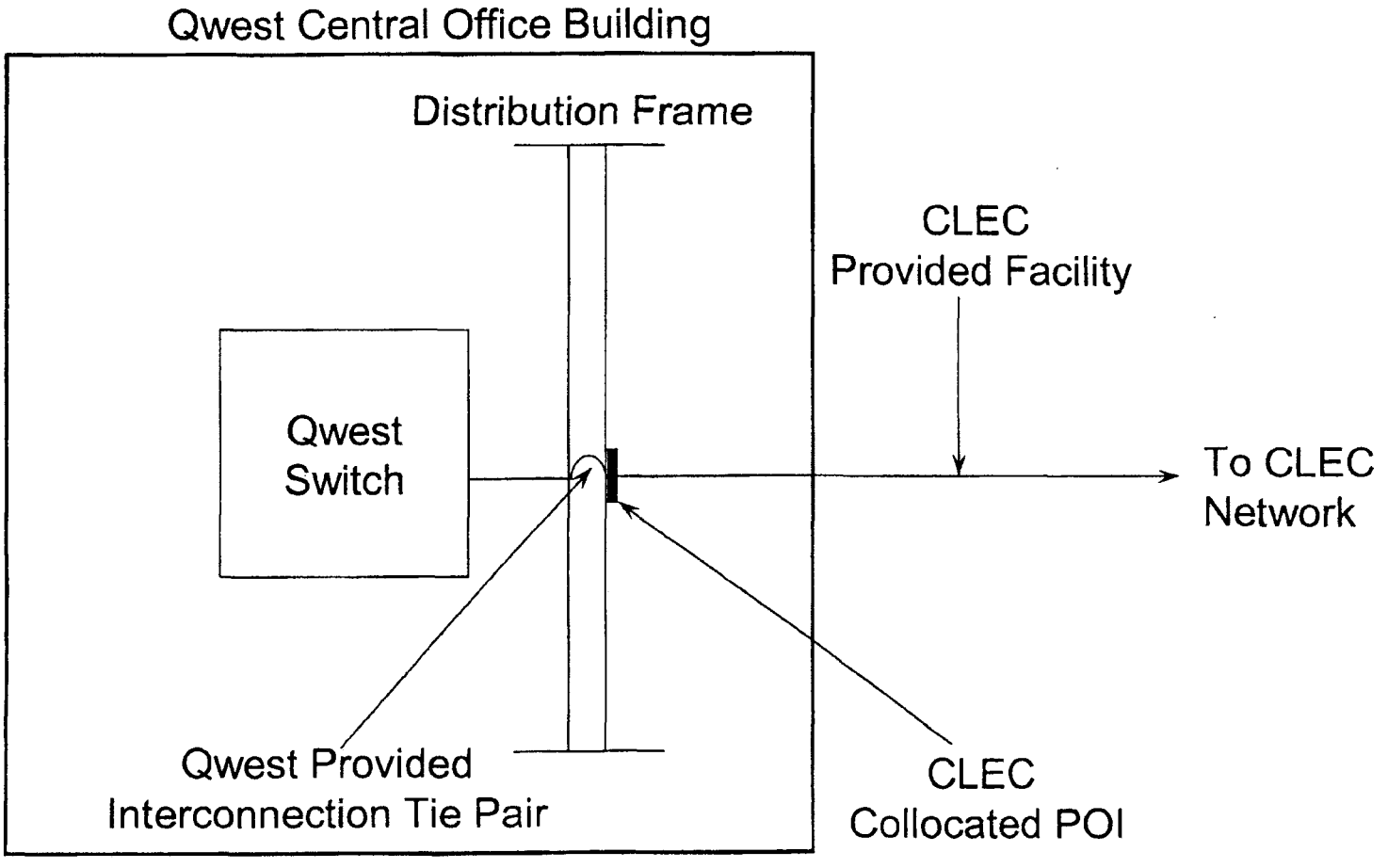
Mid-Span Meet Point



Qwest

EXHIBIT
PL 5

Collocation



Qwest

EXHIBIT
PL 6

AMATSG

AMA Technical Support Group

Date: **February 4, 2005**

To: **Alliance for Telecommunications Industry Solutions**
Ordering and Billing Forum
Billing Committee

Subject: **OBF Issue 2776: Identification of VoIP-Originated Calls**

Billing Committee Members:

This is an open letter to the participants in the Billing Committee of the Ordering and Billing Forum (OBF), written at the direction of the AMA Technical Support Group (AMATSG), regarding OBF Issue 2776: Identification of VoIP-Originated calls. At its last three quarterly meetings, the AMATSG has been tracking the discussions at the OBF on this issue, and the members of the AMATSG feel that now is an appropriate time to contribute the AMATSG's current thinking on this issue.

The AMATSG meets quarterly to discuss matters related to the generation of AMA in stored program control switches. Its members are the recognized AMA subject matter experts in their respective companies. Some of the companies represented at the OBF are also members of the AMATSG, and the AMATSG SMEs are regularly consulted to provide their expertise on matters related to new network capabilities and services.

1. Background

The AMATSG believes that the Billing Committee made the correct decision to accept and work the issue of identifying calls that originate in a VoIP network and ingress to the PSTN via an interface between a VoIP gateway and a traditional TDM (Time Division Multiplexing) switching system. There is no need to reiterate the potential regulatory and technical reasons for acting on this issue; these are already well documented in the OBF record.

The AMATSG members would like to address the potential technical solutions that might be available to accomplish identification of VoIP-Originated calls. We understand that there have been some proposals floated at this point, and we would like to address those proposals that we have heard about and propose some of our own. The AMATSG, like the Billing Committee, realizes that the most efficient network-based solution will involve some type of alteration to call setup signaling in the Signaling System 7 protocol. We also realize that neither of our groups can effect a change to this protocol without the assistance of the standards bodies responsible for standardizing the SS7 protocol. Therefore, the goal of this letter is to provide substantive technical input from an AMA and billing perspective to the appropriate standards bodies so that this issue is resolved in an efficient, expeditious manner.

Before going into each of the proposals, the AMATSG would like to note that each of the variations on the call setup signaling solution will likely require modifications to existing TDM switch generic software. Whatever signaling variation is chosen will require some

modification of call processing and AMA generic software in most TDM switching systems. For companies using a Link Monitoring System (LMS) to generate CDRs, the impact of a signaling solution may be considerably less involved. Finally, whether a modified CDR is generated at the switch or the LMS, the newly-generated VoIP indicator will have to be detected and processed by service provider billing systems. That said, the goal of the AMATSG is to minimize the impact of all these software changes.

2. Potential Signaling Solutions

The AMATSG client companies asked the BAF experts at Telcordia Technologies to provide a preliminary analysis of potential SS7 parameters that are already present in call setup signaling that could be used for identification of VoIP-Originated calls. The criteria specified by the AMATSG for parameter selection included the following characteristics/restrictions:

- The parameter:
  1. must be a parameter within the Initial Address Message (IAM)
  2. must be in general use
  3. must be signaled forward as part of normal call transiting
  4. must be sent end-to-end
- The value set in the parameter:
  1. must have an available value within the existing parameter
  2. must minimize interaction with or be independent of existing parameter values (stand-alone)
  3. must be transparent to networks not using the value and yet be signaled forward as part of normal call transiting.

Using these criteria as a guide, two of the parameters that had been mentioned in discussions of Issue 2776, namely the Originating Line Information (OLI) parameter and the Calling Party Number (CPN) parameter, were examined. In addition, two other parameters that the AMATSG believes may meet the above criteria were also investigated. The two additional parameters for consideration are the Forward call Indicator (FCI) and the Nature-of-Connection Indicators (NCI).

Table 1 is a summary representation of how these four parameters meet the criteria.

Table 1: Comparison of Proposed IAM Parameters

	General Use	Transiting	End-to-End	Value Available	Independent (Stand-alone)	Transparent
OLI	No	No	No	Yes	No	No
CPN	Yes	No	No	Yes	Yes	Yes
FCI	Yes	Yes	Yes	Yes	Yes	Yes
NCI	Yes	Yes	Yes	Yes	Yes	Yes

3. Points of Comparison

The following is a brief explanation of the entries in Table 1 for each parameter.

3.1 Originating Line Information (OLI) parameter

Using the Originating Line Information parameter, the AMATSG believes, will be problematic. The first difficulty with using this parameter is that it is in general use only for the Exchange Access version of the SS7 protocol (reference Telcordia GR-394-CORE). Traditional signaling used between local exchange carriers for local and short-haul toll calls does not call for the inclusion of the OLI parameter in the IAM (reference GR-317-CORE). The AMATSG believes that, if the VoIP-Originated indicator comes to be required, it will be required for both Exchange Access calls and local calls. If OLI were to be selected as the parameter, then call processing logic would be required to generate this parameter for local calls where it is not generated today.

The transiting and end-to-end characteristics for OLI are also deficient in the protocol at this time. Transiting nodes would be required to pass this parameter through to the terminating node and while it is true that the standards language states that an unused or unrecognized parameter should be signaled forward, experience has shown that this is not always the case in existing implementations.

The last characteristic that argues against using OLI to identify VoIP-Originated calls is the value assignment question. OLI is currently used to identify originating line characteristics such as cellular calls, toll-free calls, and calls made from coin/coinless stations. Adding a VoIP-Originated component to this mix does not require just one or two additional values, but requires values and/or procedures to convey on the originating end and interpret on the terminating end that VoIP technology was used, which could occur in conjunction with a line characteristic already assigned an OLI value. Therefore, a "multiplier effect" will cause values to need to be assigned representing each of many existing values in conjunction with the new need. This type of analysis and assignment is complicated. The AMATSG believes that resources can be better and more profitably spent using another parameter rather than trying to develop something that will be inherently complicated and confusing.

3.2 Calling Party Number (CPN) parameter

The AMATSG believes that the Calling Party Number (CPN) parameter could be used to convey an indication that a call has originated in a VoIP network. However, there are at least two caveats that must be considered. The first is the indicator itself. The AMATSG believes an independent and stand-alone indicator should be used to avoid interworking and compatibility issues with established values. To accomplish this in the current implementation of the SS7 protocol definition for CPN would require the spare bit in the second octet of the parameter be used to indicate VoIP-Originated. This bit is currently spare and is the only spare bit available. The fact that the only spare bit would be used to identify a VoIP call may cause some concern within the signaling standards community.

The second consideration is the industry's experience overall with signaling forward CPN from an originating network through transiting networks and on to the terminating

network. The instances where transiting and terminating networks do not receive the CPN parameter are still numerous enough to warrant caution in using this parameter for a needed piece of information. The AMATSG members believe that the industry should be wary of relying on the presence of the CPN parameter for yet another potentially significant financial and fiduciary function. The AMATSG believes that using the CPN parameter for VoIP identification is not a viable solution.

3.3 Forward Call Indicator (FCI)

The most recent industry-wide requirement for sending an indicator from the originating switch to the terminating switch was accomplished using a bit in the FCI parameter. The application was Number Portability (NP), and FCI was used to indicate that a NP query was or was not performed. This indicator was essential for network efficiency and was a critical piece of information that each network node needed to know as call setup signaling was passed through to the terminating network. The terminating network used the 'M' bit in the FCI to trigger whether or not to swap out the telephone number in the generic address parameter (GAP) with the called party number in order to terminate the call properly.

It can be argued that the VoIP-Originated indicator is the next industry-wide critical indicator that must be passed end-to-end in the network. The AMATSG members believe that the indicator for VoIP-Originated may have applications beyond the initial regulatory/accounting purpose that is now its focus. The implication to the AMATSG is that the indicator will be required beyond the point of initial interface between the VoIP network and the ingress TDM network. This means that the indicator must be available end-to-end for call setup and, like the 'M' used in NP, must also be stand-alone and not be burdened with complicated interworking scenarios. As its use for NP demonstrates, the FCI indicators are stand-alone bits, and as part of the essential information for call setup, are passed from node to node essentially unaltered.

This parameter meets all of the criteria listed in Table 1; however, the AMATSG members acknowledge that the available bits in the FCI parameter are limited. Currently, there are three bits that remain unassigned ('L', 'O', and 'P'). The 'L' bit is spare and the latter two are reserved for 'National Use'. The AMATSG recommends that the FCI parameter be considered a reasonable candidate for use as an indicator for VoIP-Originated calls.

3.4 Nature-of-Connection Indicators (NCI)

The last parameter examined by the AMATSG is the Nature-of-Connection Indicators (NCI). Like FCI, the NCI indicator meets all of the criteria listed in Table 1 in that it is in general use, is signaled forward as part of normal call transiting, and is sent end-to-end. The value could be set in the parameter by a '0' or '1' in an available bit, which would be stand-alone and would eliminate interactions with existing parameter values. NCI would be signaled forward as part of call setup, yet it would be transparent to networks not using the value. The NCI also has three unassigned bits available ('F', 'G', and 'H'). As far as the title of the parameter to be used, "Nature of Connection" is appropriate for an indication of the technology used to originate the call. The AMATSG recommends that the NCI parameter also be considered a reasonable candidate for use as an indicator for VoIP-Originated calls.

4. Conclusion

The AMATSG members, after considerable research and thought on this issue, would like to recommend that the OBF consider our arguments for using either the NCI parameter or the FCI parameter to identify VoIP-Originated calls. Conversely, we would ask that the OBF avoid any recommendation for using either the OLI parameter or the CPN parameter for this purpose.

The AMATSG hopes that the Billing Committee of the OBF will find this letter useful in focusing your discussions in the committee and invites the Billing Committee to avail itself of any and all of the information contained in this letter when interacting with the signaling standards and network interoperability groups.

Thank you for your time and attention. If you have any questions on the technical content of this letter, please contact either Sara Knapp (732) 699-6080 or Bill Krall (732) 699-6052 at Telcordia Technologies.

Carla Worland
Chair – AMA Technical Support Group
(205) 321-3171

Jackie Rymill
Vice Chair – AMA Technical Support Group
(402) 422-3767

Copy to: AMATSG Members
Tom Buhler – Qwest
Lourdes Coronado – SBC
Fran Fischbach – Qwest
Mel Kennedy – Verizon
Cindy Kontz – Verizon
Sandy Lauterbach – Verizon
Doug Mabie – Verizon
Deborah May – BellSouth
Robbie McCarty – Verizon
Bob McHugh – SBC
Linda Mudd – SBC
Jackie Rymill - Qwest
Al Todd – SBC
Dave Whitney – BellSouth
Carla Worland – BellSouth
Sara Knapp – Telcordia Technologies
Bill Krall – Telcordia Technologies
Loren Lewin – Telcordia Technologies

EXHIBIT
PL 7

1200 G Street, NW
Suite 500
Washington, DC 20005
www.atis.org

Ordering and Billing Forum (OBF)

Dean Grady
OBF Co-Chair
dean.grady@mci.com

David Thurman
OBF Co-Chair
David.Thurman@mail.sprint.com

John Pautlitz
ATIS Director Industry Forums-OBF
jpautlitz@atis.org

"Developing Standards that Drive the Business of Communications and Information Technology"

May 9, 2005

Packet Technologies and Systems Committee (PTSC)
Bob Hall
PTSC Chair
SBC Communications
bhall@labs.sbc.com

Joe Zebarth
PTSC Vice Chair
Nortel Networks
zebarth@nortel.com

RE: OBF Billing Committee Issue 2776 - Identification of IP-Originated, PSTN-Terminated Traffic for Intercarrier Compensation Purposes

The OBF Billing Committee is currently reviewing Issue 2776 (See Attachment 1), related to Intercarrier Compensation between IP and PSTN networks. Due to the nature of Voice Over Internet Protocol (VoIP) origination, there is an apparent need to separate VoIP traffic from other PSTN traffic for intercarrier compensation issues.

The committee is investigating the following three options for identifying VoIP traffic:

1. Utilizing existing signaling parameters as provided by the AMATSG (See Attachment 2) – where the possible solution includes one of the following:
    a. Originating Line Identifier (OLI)
    b. Calling Party Number (CPN)
    c. Nature of Connection Indicator (NCI)
    d. Forward Call Indicator (FCI)
2. ENUM Database type solution – which may contain a list of all VoIP 10-digit numbers.
3. New Feature Group trunk type for packet type interconnection – which could be similar to existing Feature Group trunk types (Example: FGB & FGD). In this case, we would need to investigate the best signaling protocol available.

We are requesting any recommendations specific to the AMATSG solution (1) but would also like to get your input regarding the other alternatives (2 & 3) that we are considering. We would welcome any other options that we have not yet identified.

Would you kindly provide a response with a status or update in time for review prior to the next OBF General Session (June 22, 2005).

Your questions and feedback may be directed to the Billing Committee Co- Chairs: Syl-Vonna Mabie at (919) 844-9043 (email: sylvonna.mabie@nisc.coop) and Larry Martin at (936) 637-4262 (email: larry.martin@consolidated.com)

Regards,

Syl-Vonna Mabie	Larry Martin
Billing Committee Co-Chair	Billing Committee Co-Chair
NISC	Consolidated Communications

CC:
Dean Grady, OBF Co-Chair, MCI, dean.grady@mci.com
Dave Thurman, OBF Co-Chair, Sprint, David.Thurman@mail.sprint.com
Khristine Natelli, OBF Billing Committee Administrator, knatelli@atis.org
John Pautlitz, ATIS OBF Director, jpautlitz@atis.org
Alissa Medley, OBF Project Manager, amedley@atis.org
Yvonne Reigle, OBF Team Manager yreigle@atis.org
Tom Goode, ATIS Attorney, tgoode@atis.org
Jean-Paul Emard, Director - Technical Committee, PTSC, ATIS, jpemard@atis.org
Steve Barclay, PTSC Manager, ATIS, sbarclay@atis.org
Catrina Akers, PTSC Committee Associate, cAkers@atis.org
Nicole Butler, PTSC Committee Administrator, nbutler@atis.org
Joe Scolaro, LSOP SME, jscolaro@atis.org

EXHIBIT
Q-7
admitted

30. Does Level 3 provide "(3) VoIP Enhanced[sm] Local Service" or a service similar to it in Arizona?

a. If not, does it plan to do so in the near future?

b. Does Level 3 provide this service to end user retail customers?

c. Does Level 3 provide this service on a wholesale basis to VoIP or IP-enabled service providers?

LEVEL 3'S RESPONSE.

Level 3 objects to this request insofar as it seeks information regarding Level 3's projections regarding future services, strategies, equipment deployments, or other such future business plans as such requests are trade secrets and, for purposes of this proceeding, would be highly speculative and irrelevant to the issues to be decided in this docket. Level 3 further objects to this request on the grounds that it seeks information that is publicly available and therefore equally accessible by Qwest.

Subject to and without waiving its objections, Level 3 responds as follows:

a. Yes.

b. Yes. Level 3 provides this service on a wholesale basis to end users who are enhanced service providers, to large government customers, and to large business users.

c. Yes.

Submitted and prepared

By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

Q8

36. Is Level 3 a VoIP provider to end user customers in Arizona? If not, does Level 3 plan to do so after the interconnection agreement is approved in this docket?

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the basis that it is vague and ambiguous. Level 3 further objects to the request because it is not reasonably calculated to lead to the discovery of admissible evidence. Level 3 also objects to this request to the extent it seeks information regarding Level 3's projections regarding future services, strategies, equipment deployments, or other such future business plans as such information consists of highly confidential and proprietary trade secrets. In addition, Level 3 objects because the request calls for speculation and because the request seeks legal conclusions rather than facts and is therefore not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving its objections, Level 3 responds as follows: Level 3 provides wholesale VoIP service to service providers who offer these services to end users in Arizona.

Submitted and prepared

By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

EXHIBIT
Q-8
admitted

D9

37. Does Level 3 consider itself to be an enhanced service provider (ESP) in connection with the provision of VoIP services? If so, please explain the basis for its conclusion that it is an ESP.

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the basis that it is vague, ambiguous, overly broad, unduly burdensome, and imprecise, and utilizes terms that are subject to multiple interpretations but are not properly defined or explained. Level 3 further objects to this data request in so far as the request lacks certain information required in order for Level 3 to provide an adequate response. Level 3 further objects to the request on the grounds that it calls for a legal conclusion, not facts and is therefore not reasonably calculated to lead to the discovery of admissible evidence and is not relevant to the subject matter of this action.

Subject to and without waiving its objections, Level 3 responds as follows: Level 3 Communications, LLC is a CLEC in Arizona and provides telecommunications services.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

EXHIBIT
Q-9
admitted

1650674.1

EXHIBIT
Q-10
admitted

43. As a CLEC in Arizona, does Level 3 provide local exchange service to end user retail customers? If so, what percent of total minutes exchanged by Qwest and Level 3 in Arizona in the past two years is represented by minutes originating from retail end user customers served by Level 3?

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the grounds that it is vague, ambiguous, unduly burdensome, and requires Level 3 to perform a special study entailing hours of research for which Level 3 does not have allocated personnel. Level 3 further objects because the request is not reasonably calculated to lead to the discovery of admissible evidence and is not relevant to the subject matter of this action and is not relevant to the subject matter of this action.

Subject to and without waiving its objections, Level 3 responds as follows: Level 3 provides wholesale services to service providers that include DID & DID/DOD (Local), Private Line (Transport), and (3)Voice Termination (Toll) services within the State of Arizona.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

11

44. In Arizona, does Level 3 obtain local telephone numbers from NANPA (North American Numbering Plan Administrator) for the use by Level 3's ISP customers so that customers of that ISP may call a local number in order to obtain access to the ISP, even though that ISP has no physical facilities located in the local calling area (as defined by the Commission) associated with such telephone numbers?

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the basis that it is vague, ambiguous, overly broad, unduly burdensome and imprecise, and utilizes terms that are subject to multiple interpretations but are not properly defined or explained. Level 3 further objects to this data request insofar as the request lacks certain information required in order for Level 3 to provide an adequate response. Level 3 further objects to the request insofar as it is not reasonably calculated to lead to the discovery of admissible evidence and is not relevant to the subject matter of this action.

Subject to and without waiving its objections, Level 3 responds that the ISP may or may not have physical facilities in the local calling area, but it is correct that ISPs, as customers of Level 3, receive local numbers so that their customers may access their service on a locally dialed basis where such service is terminated to Level 3 POIs located within LATAs.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

Tim Gates
Senior Vice President
QSI Consulting
(303) 424-4433

EXHIBIT
Q-11
admitted

1650674.1

12

45. In Arizona identify each LATA and local calling areas for which Level 3 has obtained telephone numbers from NANPA.

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the basis that it is vague, ambiguous, overly broad, unduly burdensome, and imprecise, and utilizes terms that are subject to multiple interpretations but are not properly defined or explained. Level 3 further objects to the request insofar as it is not reasonably calculated to lead to the discovery of admissible evidence and is not relevant to the subject matter of this action. Level 3 further objects to this data request to the extent that the information requested is confidential, proprietary, or constitutes "trade secrets." To the extent that Qwest requests proprietary confidential business information, Level 3 will only make such information available once a Protective Order or Protective Agreement is entered in this docket. Any production by Level 3 of confidential information or material will be governed by the Protective Order or Protective Agreement to be entered in this docket.

Subject to and without waiving its objections, Level 3 responds as follows: Level 3 has POIs throughout Arizona as explained in other responses and according to information readily available to Qwest. Level 3 has POIs in LATAs 666 and 668.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

EXHIBIT
Q-12
admitted

56. Exhibit B is a page from Level 3's website related to a service entitled "(3)Connect® Modem" service. It states that "Level 3 takes care of setting up a local Internet dial-up network, securing local numbers, deploying modems, and staffing a round-the-clock operations center to manage the network and hardware so you can do what you do best – service your end user customers." Please respond to the following questions with regard to that service (or with regard to other services of Level 3 whereby Level 3 obtains local numbers for ISPs and provides the functionalities of modems and routers for the ISP):

a. Does Level 3 provide "(3)Connect® Modem" service to ISP customers that provide dial-up service in Arizona.

b. Does Level 3 maintain "modems to collect traffic" or "managed routers" that are physically located in any local calling areas in Arizona. If so, please identify the local calling areas in Arizona in which Level 3 maintains such "modems to collect traffic" or "managed routers."

c. When Level 3 serves an ISP through Level 3's "(3)Connect® Modem" service or similar service, what equipment is the ISP required to maintain to communicate with Level 3?

d. Describe how the customer validation process is conducted to determine if the calling party is a valid customer of the ISP served by Level 3? What specific equipment must the ISP have in order to conduct the validation process?

e. Assume hypothetically that a Qwest customer is also a dial-up customer of an ISP served by Level 3 through Level 3's "(3)Connect® Modem" service or similar service.

   1. When that customer dials the local number provided by Level 3 to access the ISP, where is the call answered? (For example, is it answered by the modems provided by Level 3 for the ISP or by some other piece of equipment provided by Level 3?)

   2. Are there any circumstances in which the call is answered by the ISP's equipment? If so, describe the circumstances under which the ISP answers the call and the type of equipment used to do so?

f. Whether the equipment is provided by Level 3 for its ISP customers or by the ISP on its own behalf for a dial-up Internet session, please describe:

   1. The specific piece or pieces of equipment that retains the ongoing connection to the end user during the course of the call?

EXHIBIT
Q-13
admitted

2. The specific piece or pieces of equipment that directs the call to websites selected by the end user during the course of the call?

g. Would it be fair to characterize Level 3's "(3)Connect® Modem" service as a service by which Level 3 provides ISPs with basic functionalities related to access to the Internet (e.g., modems and routers) on a wholesale basis so that the ISP need not perform those functions on its own behalf? If not, please accurately describe Level 3's characterization of its relationship with its ISP customers to whom it provides "(3)Connect® Modem" service.

h.. Before reaching the modems and routers provided by Level 3 as part of its "(3)Connect® Modem" service or similar service, does the traffic go through a switch owned or operated by Level 3? If so, provide the addresses of any such switches in Arizona.

i. Does Level 3 require an ISP purchasing Level 3's "(3) Connect Modem" service or any other similar dial-up ISP product to physically locate its equipment in the same local calling area in which Level 3 assigns dial-up telephone numbers for the ISP's customers to call? If so, provide documents relating to such requirements.

j. Does Level 3 require an ISP purchasing Level 3's "(3) Connect Modem" service or any other similar dial-up ISP product to physically locate its equipment in the same state in which Level 3 assigns dial-up telephone numbers for the ISP's customers to call? If so, provide documents relating to such requirements.

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the basis that it is vague, ambiguous, overly broad, unduly burdensome, and imprecise, and utilizes terms that are subject to multiple interpretations but are not properly defined or explained. Level 3 further objects to this request on the basis that the information being sought includes extremely confidential, and highly guarded trade secrets, and is not reasonably calculated to lead to the discovery of admissible evidence and is not relevant to the subject matter of this action or material to the issues raised in this proceeding. Level 3 further objects to this data request to the extent that information requested is confidential, proprietary, or constitutes "trade secrets." To the extent that any of this information is relevant to this Arbitration and to the extent any of that information that Qwest requests is proprietary, confidential business information, Level 3 will only make such information available once a Protective Order or Protective Agreement is entered in this docket. Any production by Level 3 of confidential information or material will be governed

by the Protective Order or Protective Agreement to be entered in this docket.

Subject to and without waiving its objections, Level 3 responds as follows:

a. Yes.

b. Yes. Level 3 will provide this information pursuant to the Protective Order or Protective Agreement entered in this docket.

For the balance of the information requested, Level 3 will provide this information pursuant to the Protective Order or Protective Agreement entered in this docket.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

57. The following set of questions relate to situations where, instead of Level 3 providing modems and routers for its ISP customers, the ISPs obtain local telephone numbers through Level 3 and traffic is gathered from Qwest by Level 3 on behalf of such ISPs, but the ISPs provide their own modems and routers for themselves.

a. Does Level 3 provide service as described above to any ISP that provides service to customers in Arizona? If so how many ISPs that provide service to customers on that basis provide service to customers in Arizona.

b. How many ISP customers identified in the previous subpart, physically locate their modems and routers in Arizona and how many physically locate their modems and routers in other states?

c. When Level 3 provides service to ISP customers as described in this question, does the traffic go through a Level 3 switch before being delivered to the ISP's modems and routers? If not, does the traffic go through any Level 3 equipment between its POI and the modems and routers of the ISP? If so, describe all such equipment.

d. When Level 3 provides service to ISP customers as described in this question, how does Level 3 connect its equipment to the routers and modems of the ISP (e.g., high-capacity circuit, over the Internet)?

LEVEL 3'S RESPONSE.

Level 3 objects to this request on the basis that it is vague, ambiguous, overly broad, unduly burdensome, and requires Level 3 to conduct a special study, entailing hours of research for which Level 3 does not have allocated personnel. Level 3 objects to this request to the extent that it requires Level 3 to speculate based on hypotheticals and also requires Level 3 to make improper assumptions and which lack information required for Level 3 to formulate an adequate response. Such hypotheticals are not reasonably calculated to lead to the discovery of admissible evidence and is not relevant to the subject matter of this action. Level 3 further objects to this data request to the extent that the information requested is confidential, proprietary, or constitutes "trade secrets." To the extent that Qwest requests proprietary confidential business information, Level 3 will only make such information available once a Protective Order or Protective Agreement is entered in this docket. Any production by Level 3 of confidential information or material will be governed by the Protective Order or Protective Agreement to be entered in this docket. Subject to and without waiving these objections, Level 3 will respond to this request.

Subject to and without waiving its objections, Level 3 responds as follows:

c. No. Level 3's network is continuously upgradeable and the network is constantly upgraded to provide the best services at the lowest cost using the latest technology.

d. When Level 3 provides service to ISP customers as described in this request, Level 3 connect its equipment to the routers and modems of the ISP according to sound engineering principles, which engineering solution depends upon traffic volumes.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

Q-14

(3)VoIP Enhanced Local

SERVICES

Voice Services
Select a Service

Softswitch Services
Select a Service

Internet & Data Services
Select a Service

Transport Services
Select a Service

Infrastructure Services
Select a Service

Overview Brochures

Related Links and Materials:

(3)VoIP Enhanced Local Service Overview Brochure

Level 3 E-911 Fact Sheet

News Coverage:
Level 3 Named Network Partner for America Online Internet Phone Service

U.S. Consumers Open to Switching to Internet Phone Service

deltathree Selects Level 3 to Support Ongoing Growth of its Consumer and Business VoIP Offerings

SALES HELP
Click here for help
or call: 1-877-2LEVEL3

(3)VoIP Enhanced[SM] Local

(3)VoIP Enhanced Local service is a VoIP solution that enables cable operators, inter-exchange carriers (IXCs), enhanced service providers, and other companies operating their own switching infrastructure to launch IP-based local and long-distance communications services with features like E-911, Directory Assistance, and Operator Services to residential customers via any broadband connection.

Wholesale customers can easily offer VoIP services to any consumer with high-speed Internet access — enabling those consumers to make and receive local and long distance phone calls worldwide with either an existing analog touch-tone telephone or a digital IP telephone. This effectively eliminates their need to purchase traditional telephone service.

With (3)VoIP Enhanced Local service, you obtain the essential building blocks required to offer residential VoIP phone service — such as network trunking, local numbers, local number portability, E-911, operator assistance, directory listings, and directory assistance. (3)VoIP Enhanced Local service provides these essential components while enabling the voice service provider to retain the flexibility to manage and control end-user features without the headaches of implementing complex interconnection arrangements.

(3)VoIP Enhanced Local Service Competitive Advantages

- Coverage: Provides local phone numbers, local number portability, and local trunking to over 4,300 rate centers with local calling — all available today. Consumer VoIP service with E-911 is available in more than 300 markets, covering approximately 64 million U.S. households.
- Local network: Offers low-cost, nationwide access with Level 3's CLEC status in 48 states (with 1.8 million voice-capable trunks).
- Regulatory compliance: Meets E911 emergency service and local number portability requirements.
- Robust VoIP Portfolio: Provides customers flexibility. Level 3 is able to provide the right solution today and can migrate customers to other options in the future to accommodate their growing business, their changing needs, and the further development of the VoIP industry.
- Neutral, wholesale VoIP strategy: Committed to customer enablement. Level 3 does not compete with (3)VoIP customers or Level(3)Enabled Partners in the retail market.

TOP

© 1999-2005 by Level 3 Communications, Inc. All rights reserved. | Legal Conditions, Terms of Use, and Tariffs | Acceptable Use Polic

EXHIBIT
Q-14
admitted

(3)VoIP Enhanced℠ Local Service

For information about Level 3 services, visit our Web site at www.level3.com ©2004–2005 Level 3 Enhanced Services, LLC. All rights reserved.

VOIP SERVICES FOR WHOLESALE CUSTOMERS

(3)VoIP Enhanced Local service enables service providers to offer Voice over IP (VoIP) services via their consumer Internet broadband connections – complete with local phone numbers and E-911.

This wholesale VoIP service is available in over 300 markets, with approximately 60 percent of the U.S. population addressable using this service.

With (3)VoIP Enhanced Local service, cable operators, IXCs, enhanced service providers, and other companies can launch IP-based local and long-distance communications services to consumers via any broadband connection.

Level 3's unmatched proprietary Softswitch platform makes the service extremely efficient, enabling providers to cost-effectively accelerate their deployment of high-quality VoIP services.

WHAT YOU CAN OFFER YOUR CONSUMER BASE

With (3)VoIP Enhanced Local service, wholesale customers can offer their broadband Internet end-users:

- Local and long distance phone service with the ability to make and receive calls worldwide – using either an existing analog touchtone telephone or a digital IP telephone
- Freedom from the need for traditional telephone service (their broadband Internet connection – cable, DSL, etc. – is used instead)
- E-911 service for emergency phone calls, with the same routing used by standard telephone service providers
- Local numbers and Local Number Portability (LNP) with Port-in and Port-out capability
- Operator assistance, directory listings, and directory assistance
- Any number of other features that your company might choose to add. With (3)VoIP Enhanced Local service, you manage and operate your own Class-5 Softswitch, giving you full control over the features available to your consumers.

THE CONTROL YOU NEED – WITH SIMPLICITY

With (3)VoIP Enhanced Local service, you obtain the essential building blocks required to offer VoIP phone service – including network trunking, local numbers, local number portability, E-911, operator assistance, directory listings, and directory assistance.

But you don't have to stop there. Because you manage your own switching, you have total control over the features used by the end user, with minimal involvement in complex interconnection issues. You can add competitive features and emerge on top of the industry.

All end-user billing and customer equipment is managed by your company as well.

TECHNICAL OVERVIEW

- **Coverage:** Provides local phone numbers, LNP, and local trunking to over 1,500 rate centers with local calling – all available today. VoIP coverage reaches over 300 markets and approximately 60% of the U.S. population.
- **Local network:** Offers low-cost, nationwide access with Level 3's CLEC status in 48 states (with 1.4 million voice-capable trunks).
- **Regulatory compliance:** Meets E-911 emergency service and Local Number Portability requirements.
- **Neutral, wholesale VoIP strategy:** Committed to customer enablement. Level 3 will not compete against our (3)VoIP Enhanced Local customers in the retail market.

LEVEL 3 AND VOIP

Level 3 has proven its VoIP leadership and expertise since 1999, when we introduced (3)Voice® Termination, the industry's first PSTN-quality VoIP service requiring no special dialing by the end user. Our patented, proprietary Softswitch is now processing more minutes per month than many traditional long distance and local carriers.

The Level 3 logo and (3)Voice are registered service marks, and (3)VoIP Enhanced is a service mark of Level 3 Communications, Inc. in the United States and/or other countries.

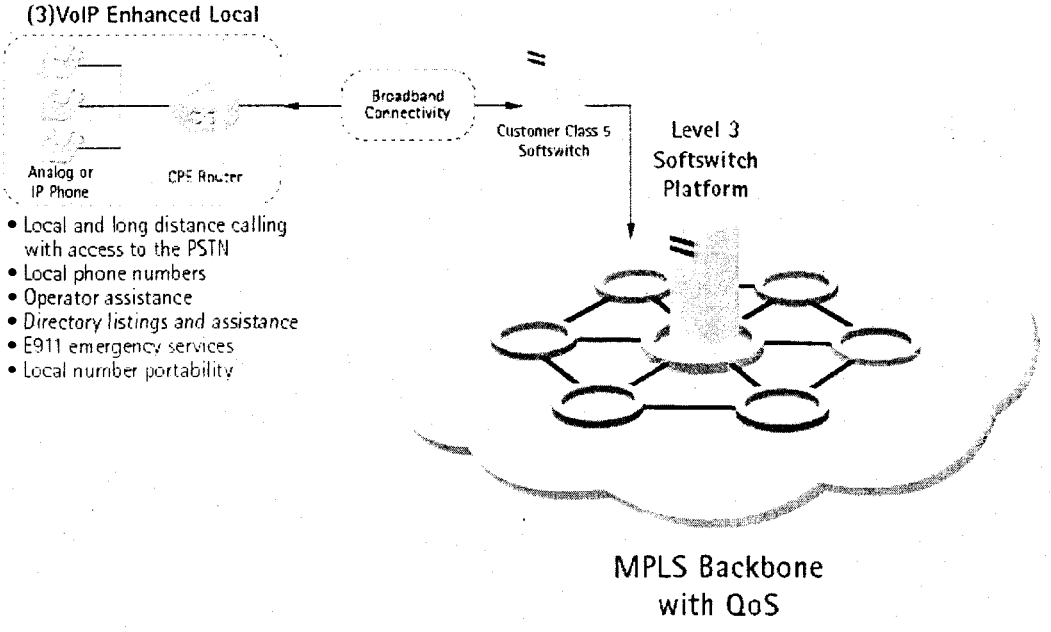


EXHIBIT
Q-15
admitted

QWEST COMMUNICATION

DATA REQUEST

Date: August 23, 2005

Docket No. ARB-05-4

Company: Level 3 Communication, Inc.

REQUEST NO. 29

Does Level 3 consider a call that originates in TDM and terminates with a VoIP called party in Internet Protocol (commonly referred to as a TDM-IP call) a VoIP call for purposes of the interconnection agreement in this case?

RESPONSE:

Level 3 objects to this request on the basis that it is vague, ambiguous, and overly broad. Level 3 further objects to this request on the grounds that it calls for speculation. In addition, Level 3 objects on the grounds that it seeks legal conclusions rather than facts and is therefore not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving its objections, Level 3 responds as follows: Yes.

Submitted and prepared
By: Rogier Ducloo
Director, Product Management
Consumer Voice
(720) 888-1114

Tim Gates
Senior Vice President
QSI Consulting
(303) 424-4433

Q-16

(3)Connect Modem

SERVICES

Voice Services
Select a Service

Softswitch Services
Select a Service

Internet & Data Services
Select a Service

Transport Services
Select a Service

Infrastructure Services
Select a Service

Overview Brochures

Related Links and Materials:

(3)Connect Modem Service Overview Brochure

(3)Connect Modem Buyer's Guide

V.92 White Paper

SALES HELP
Click here for help
or call: 1-877-2LEVEL3

EXHIBIT
Q-16
admitted

(3)Connect® Modem

If you require an end-to-end, dial-up solution, our (3)Connect Modem service is your answer. (3)Connect Modem, which supports the top 10 dial-up ISPs in the U.S., allows you to concentrate on marketing your products, while remaining confident that your end users can access a high-quality network. Level 3 takes care of setting up a local Internet dial-up network, securing local numbers, deploying modems, and staffing a round-the-clock operations center to manage the network and hardware so you can do what you do best - service your own end-users.

Our rapidly expanding (3)Connect Modem service covers more than 15,500 local calling area rate centers and 2,458 total unique rate centers. Service is sold on a per-port basis for a flat monthly fee or on a metered basis based on the total number of hours used. The monthly charge includes local dial-in numbers, complete network coverage for a specific region, modems to collect the incoming traffic, and managed routers.

Our Nationwide Access Service combines a toll-free (800) number with Level 3's Transit service to provide access to the Level 3 dial access network to calls originating anywhere in the United States, Guam, Puerto Rico, U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands (CNMI).

TOP

V.92 Data Standard

Level 3 provides value to our customers through our increased investment in our dial-up services. While the majority of providers have placed new technology implementation and standards on hold due to market uncertainty, Level 3 continues to focus on customer needs, the introduction and graceful implementation of new technologies to fill those needs, and increasing the coverage and scope of our dial-up services.

One such technology is V.92, the newest data standard in modem technology. V.92 narrows the gap between dial-up and broadband services by delivering a better Internet experience to analog modem users. Level 3 has implemented, and is now offering, V.92 to customers.

Customers who support V.92 technology benefit by:

- Becoming more competitive by enabling their network to offer the latest technology to their subscribers and exceeding the service offerings of other ISPs
- Generating more revenue and decreasing customer churn by offering subscribers tiers of services or by charging more for V.92 features like Modem On Hold
- Using Quick Connect and V.44 compression to decrease usage costs and improve subscriber experience

V.92 presents key enhancements to the V.90 56K technology, including Modem On Hold, V.44, Quick Connect, and PCM Upstream. Each of these enhancements represents a push forward to a more user-friendly dial-up experience.

TOP

© 1999-2005 by Level 3 Communications, Inc. All rights reserved. | Legal Conditions, Terms of Use, and Tariffs | Acceptable Use Polic

Level (3)®
COMMUNICATIONS

(3)Connect® Modem

For information about Level 3 services, visit our Web site at www.Level3.com ©2004–2005 Level 3 Communications, Inc. All rights reserved.

(3)CONNECT MODEM – COMPLETE OUTSOURCING OF YOUR DIAL-UP NETWORK

SERVICE OVERVIEW

THE COMPLETE OUTSOURCING SOLUTION

If you are an Internet Service Provider (ISP) or large corporation, our (3)Connect Modem service allows you to provide dial-up connections to the Internet without incurring the costs associated with maintaining your own infrastructure. Currently, Level 3 processes more than 13 billion minutes per month over its (3)Connect Modem service.

HOW DOES IT WORK?

You purchase ports in Level 3 Gateways for an all-inclusive per-port or per-minute fee, and we provide:

- Your local dial network infrastructure and local numbers
- Traffic termination to the Internet
- *Network management and operations support*

HOW DO YOU BENEFIT?

- **Competitive Cost per Port** – Most large ISPs outsource management of their dial network to avoid the capital and operating expense. Outsourcing your ports lets you enjoy similar variable costs with the added benefit of the 40–60% lower cost position of our Softswitch network.
- **Improved Network Quality** – Outsourcing your network to Level 3 provides your end users with the same high quality experience as those of the largest ISPs.
- **Focus On Winning** – Our services allow you to focus on the activities where you enjoy a competitive advantage and to outsource the rest to Level 3 .
- **A Global Network In Five Days** – Level 3's global presence lets you conduct business in most major markets around the world without additional capital equipment or the need for a local network management organization.
- **Virtual Ownership** – A suite of network and customer management services lets you manage our Network as if it were your own. Services include billing options (flat rate, usage), real-time installations, comprehensive network and operations tools, rapid response to issues, and quick repair.

(3)CONNECT MODEM SERVICE TYPES

Our Transit Service allows you to rely on Level 3 to route all incoming traffic directly to the public Internet. This enables you to completely off-load the responsibility of terminating and routing all end-user traffic. By dialing a local number provided by Level 3, your end users send their data traffic over this dial-in connection to modems that are housed in the Level 3 Gateway facility. Level 3 then sends your end users' traffic to its final destination through high-speed Internet connections. We can get you up and running in five days on our Transit service.

Our Nationwide Access Service combines a toll-free (800) number with Level 3's Transit service to provide access to the Level 3 dial access network to calls originating anywhere in the United States, Guam, Puerto Rico, U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands (CNMI).

SOFTSWITCH – THE TECHNOLOGY BEHIND (3)CONNECT MODEM SERVICE

At the heart of Level 3's call processing technology is our Softswitch technology. Softswitch supports the conversion of analog or traditional digital calls into data packets. Upon conversion, the call is transmitted using Level 3's lower-cost, more-efficient, Internet Protocol (IP) based network.

FEATURES

- *V.92 support to bridge the gap between dial-up and broadband*
- High-speed connections to major network access points (NAPs) and metropolitan area exchanges (MAEs), and multiple high-speed connections to other major carrier backbones
- Rapid termination of your end users' sessions or those sessions that appear active but are actually terminated, via our Zap API feature
- Dynamic Filters allow you to specify the behavior and connection requirements of a dial-up connection
- Support for analog and ISDN (64 Kbps) traffic at all NAPs
- Redundant hardware and network infrastructure
- Rapid network growth to support future traffic increases
- Support for current hardware and software, eliminating technological obsolescence
- 24 x 7 network surveillance and management. Your one-stop TCAM (Technical Customer Account Manager) will be pleased to assist you with all aspects of your account

GEOGRAPHIC AVAILABILITY

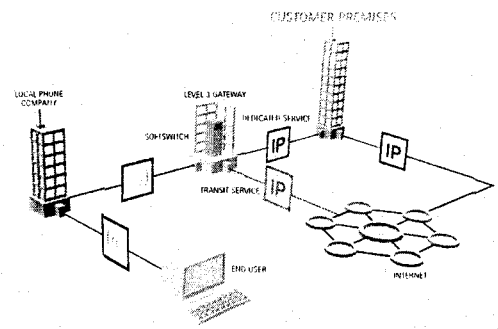
(3)Connect Modem service provides local dial-up service covering nearly 90 percent of the U.S. population.

IP ADDRESSING

Dynamic Addressing: The default option for all (3)Connect Modem customers is dynamically allocated IP addresses that are assigned to end users.

- Level 3 will dynamically assign IP addresses to your end users out of our own pool of addresses.

The Level 3 logo and (3)Connect are registered service marks of Level 3 Communications, Inc. in the United States and/or other countries.



(3)Connect Modem

End users dial into the Internet via a personal computer and a standard modem connection. The call is routed through the local phone company into the Level 3 Gateway where, for example, an ISP customer's equipment is located. Using Softswitch technology to convert the transmission, Level 3 routes the call via the Level 3 broadband Network to the public Internet.

EXHIBIT
Q-18
admitted

1997 WL 268841 (F.C.C.), 12 F.C.C.R. 15,982, 12 FCC Rcd. 15,982, 7 Communications Reg. (P&F) 1209

NOTE: An Erratum is attached to the end of this document.

Federal Communications Commission (F.C.C.)

First Report and Order

IN THE MATTER OF ACCESS CHARGE REFORM
CC Docket No. 96-262

PRICE CAP PERFORMANCE REVIEW FOR LOCAL EXCHANGE CARRIERS
CC Docket No. 94-1

TRANSPORT RATE STRUCTURE AND PRICING
CC Docket No. 91-213

END USER COMMON LINE CHARGES
CC Docket No. 95-72

FCC 97-158
Adopted: May 7, 1997
Released: May 16, 1997

Comment Date: June 26, 1997
Reply Date: July 11, 1997

***15982** By the Commission: Commissioners Quello, Ness, and Chong issuing separate statements.

***15985** I. INTRODUCTION

1. In passing the Telecommunications Act of 1996 (the 1996 Act), [FN1] Congress sought to establish "a pro-competitive, deregulatory national policy framework" for the United States' telecommunications industry. With this Order, we begin the third part in a trilogy of actions collectively intended to foster and accelerate the introduction of competition into all telecommunications markets, pursuant to the mandate of the 1996 Act.
2. In the Local Competition Order, [FN2] we set forth rules to implement section 251 and section 252 of the Communications Act of 1934, as amended. As with all of Part II of Title II of the Communications Act, those sections, and the rules implementing them, seek to remove the legal, regulatory, economic, and operational barriers to telecommunications competition. Among other things, sections 251 and 252 provide entrants with the opportunity to compete for consumers in local markets by either constructing new facilities, leasing unbundled network elements, or reselling telecommunication services.
3. In the Universal Service Order, [FN3] which we adopt in a companion order today, we take steps to ensure that support mechanisms that are necessary to maintain local rates at affordable levels are protected and advanced as local telecommunication markets become subject to the competitive pressures unleashed by the 1996 Act. When it enacted section 254 of the Communications Act, Congress detailed the principles that must guide this effort. It placed on the Commission and the states the duty to implement these principles in a manner consistent with the pro-competition purposes of the Act, as embodied in, for instance, the interconnection

charges immediately. This result is fully in accord with Congress's directives. Although Congress said in the Act that "support should be explicit" (emphasis added), it did not provide that support shall be explicit. [FN9] Congress's decision to say "should" instead of "shall" is especially pertinent in light of Congress's repeated use of "shall" in the 1996 Act. [FN10] Moreover, in the Act's legislative history, Congress qualified its intention that "support mechanisms should be explicit, rather than implicit," with the phrase "[t]o the extent possible." [FN11] Thus, Congress recognized that the conversion of the existing web of implicit subsidies to a system of explicit support would be a difficult task that probably could not be accomplished immediately. As explained below, we conclude that a process that eliminates implicit subsidies from access charges over time is warranted primarily for three reasons. First, we simply do not have the tools to identify the existing subsidies precisely at this time. Second, we prefer to rely on the market rather than regulation to identify implicit support because we are more confident of the market's ability to do so accurately. Third, even if we were more confident of our ability to identify all of the existing implicit support mechanisms at this time, eliminating them all at once might have an inequitable impact on the incumbent local exchange carriers.
***15988** 10. Nor, by our orders today, do we attempt to identify or eliminate the implicit universal service support mechanisms established by state commissions. We recognize that states are initially responsible for identifying implicit intrastate subsidies. For the reasons stated above, we believe the Commission has discretion under the statute to employ pro-competitive, deregulatory policies to aid in the reform of the existing, complex system of universal service. Where pro-competition policies, such as those set forth in sections 251, 252 and 253, can force prices for telecommunications services to competitive levels, and, as a result, eliminate or, at least, substantially eliminate implicit support, the Act grants us the authority to rely on such policies over a period of time. We find that the Act does not require, nor did Congress intend, that we immediately institute a vast set of wide-ranging pricing rules applicable to interstate and intrastate services provided by incumbent LECs that would have enormously disruptive effects on both ratepayers as well as the affected LECs. Indeed, the congressional mandate that we implement pro-competitive, deregulatory policies is a continuing reminder that, wherever feasible, we should select competition instead of regulation as our means of accomplishing the stated statutory goals. Reliance on competition is the keystone that unifies our universal service and access reform orders.

B. Treatment of Interstate Information Services

1. Background

341. In the 1983 Access Charge Reconsideration Order, the Commission decided that, although information service providers [FN498] (ISPs) may use incumbent LEC facilities to originate ***16132** and terminate interstate calls, ISPs should not be required to pay interstate access charges. [FN499] In recent years, usage of interstate information services, and in particular the Internet and other interactive computer networks, has increased significantly. [FN500] Although the United States has the greatest amount of Internet users and Internet traffic, more than 175 countries are now connected to the Internet. [FN501] As usage continues to grow, information services may have an increasingly significant effect on the public switched network.
342. As a result of the decisions the Commission made in the Access Charge Reconsideration Order, ISPs may purchase services from incumbent LECs under the same intrastate tariffs available to end users. ISPs may pay business line rates and the appropriate subscriber line charge, rather than interstate access rates, even for calls that appear to traverse state boundaries. [FN502] The business line rates are significantly lower than the equivalent interstate access charges, given the ISPs' high volumes of usage. [FN503] ISPs typically pay incumbent LECs a flat monthly rate for their connections regardless of the amount of usage they generate, because business line rates typically include usage charges only for outgoing traffic.
343. In the NPRM, we tentatively concluded that ISPs should not be required to pay interstate access charges as currently constituted. We explained that the existing access charge system includes non-cost-based rates and inefficient rate structures. We stated that there is no ***16133** reason to extend such a system to an additional class of customers, especially considering the

potentially detrimental effects on the growth of the still-evolving information services industry. We explained that ISPs should not be subjected to an interstate regulatory system designed for circuit-switched interexchange voice telephony solely because ISPs use incumbent LEC networks to receive calls from their customers. [FN504] We solicited comment on the narrow issue of whether to permit incumbent LECs to assess interstate access charges on ISPs. [FN505] In the companion Notice of Inquiry (NOI), we sought comment on broader issues concerning the development of information services and Internet access. [FN506]

2. Discussion

344. We conclude that the existing pricing structure for ISPs should remain in place, and incumbent LECs will not be permitted to assess interstate per-minute access charges on ISPs. We think it possible that had access rates applied to ISPs over the last 14 years, the pace of development of the Internet and other services may not have been so rapid. Maintaining the existing pricing structure for these services avoids disrupting the still-evolving information services industry [FN507] and advances the goals of the 1996 Act to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation." [FN508]
345. We decide here that ISPs should not be subject to interstate access charges. The access charge system contains non-cost-based rates and inefficient rate structures, and this Order goes only part of the way to remove rate inefficiencies. Moreover, given the evolution in ISP technologies and markets since we first established access charges in the early 1980s, it is not clear that ISPs use the public switched network in a manner analogous to IXCs. Commercial Internet access, for example, did not even exist when access charges were established. As commenters point out, many of the characteristics of ISP traffic (such as large numbers of incoming calls to Internet service providers) may be shared by other classes of business customers.
346. We also are not convinced that the nonassessment of access charges results in ***16134** ISPs imposing uncompensated costs on incumbent LECs. ISPs do pay for their connections to incumbent LEC networks by purchasing services under state tariffs. Incumbent LECs also receive incremental revenue from Internet usage through higher demand for second lines by consumers, usage of dedicated data lines by ISPs, and subscriptions to incumbent LEC Internet access services. To the extent that some intrastate rate structures fail to compensate incumbent LECs adequately for providing service to customers with high volumes of incoming calls, incumbent LECs may address their concerns to state regulators.
347. Finally, we do not believe that incumbent LEC allegations about network congestion warrant imposition of interstate access charges on ISPs. [FN509] The Network Reliability and Interoperability Council has not identified any service outages above its reporting threshold attributable to Internet usage, and even incumbent LEC commenters acknowledge that they can respond to instances of congestion to maintain service quality standards. Internet access does generate different usage patterns and longer call holding times than average voice usage. However, the extent to which this usage creates congestion depends on the ways in which incumbent LECs provision their networks, and ISPs use those networks. Incumbent LECs and ISPs agree that technologies exist to reduce or eliminate whatever congestion exists; they disagree on what pricing structure would provide incentives for deployment of the most efficient technologies. [FN510] The public interest would best be served by policies that foster such technological evolution of the network. The access charge system was designed for basic voice telephony provided over a circuit-switched network, and even when stripped of its current inefficiencies it may not be the most appropriate pricing structure for Internet access and other information services.
348. Thus, in our review of the record filed in response to the NOI, we will consider solutions to network congestion arguments other than the incumbent LECs' recommendation that we apply access charges to ISPs' use of circuit-switched network technology. We intend rather to focus on new approaches to encourage the efficient offering of services based on new network configurations and technologies, resulting in more innovative and dynamic services than exist today. In the NOI, we will address a range of fundamental issues about the Internet and other

information services, including ISP usage of the public switched network. [FN511] The NOI will give us an opportunity to consider the implications of information services more broadly, and to craft proposals for a subsequent NPRM that are sensitive to the complex economic, technical, and legal questions raised in this area. We therefore conclude ***16135** that ISPs should remain classified as end users for purposes of the access charge system.

C. Terminating Access

349. In the NPRM, we requested comment regarding the regulation of terminating access. We noted that, unlike originating access, the choice of an access provider for terminating access is made by the recipient of the call. The call recipient generally does not pay for the call and, therefore, is not likely to be concerned about the rates charged for terminating access. We suggested that neither the originating caller nor its long-distance service provider can exert substantial influence over the called party's choice of terminating access provider. [FN512] Thus, even if competitive pressures develop at the originating end as new entrants offer alternatives, the terminating end of a long-distance call may remain a bottleneck, controlled by the LEC providing access for a particular customer. [FN513] We also recognized, however, that excessive terminating access charges could furnish an incentive for IXCs to enter the access market in order to avoid paying excessive terminating access charges. [FN514]

1. Price Cap Incumbent LECs

a. Background

350. We requested comment on various alternative special methods for regulating the terminating access rates of price cap LECs. For instance, we sought comment on whether to establish a ceiling on the terminating access rates of price cap LECs equal to the forward-looking economic cost of providing the service. We suggested alternative methods for measuring forward-looking economic cost, including reference to prices in reciprocal compensation arrangements for the transport and termination charges of telecommunications under sections 251(b)(5) and 252(d)(2) or a requirement that terminating rates be based on a TSLRIC study or other acceptable forward-looking cost-based model. [FN515]

EXHIBIT NO. Q-19
admitted

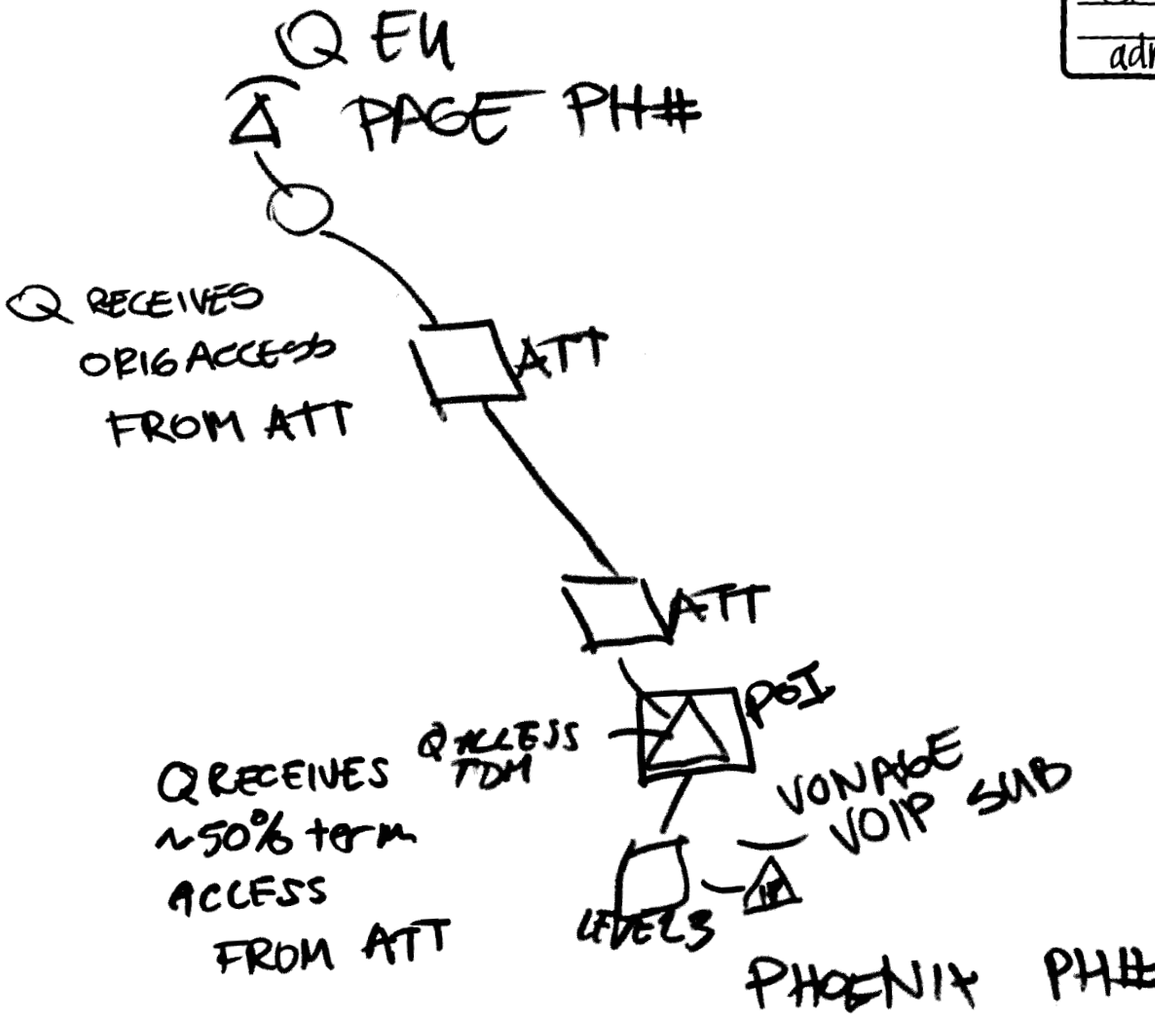


EXHIBIT NO. Q-20
admitted

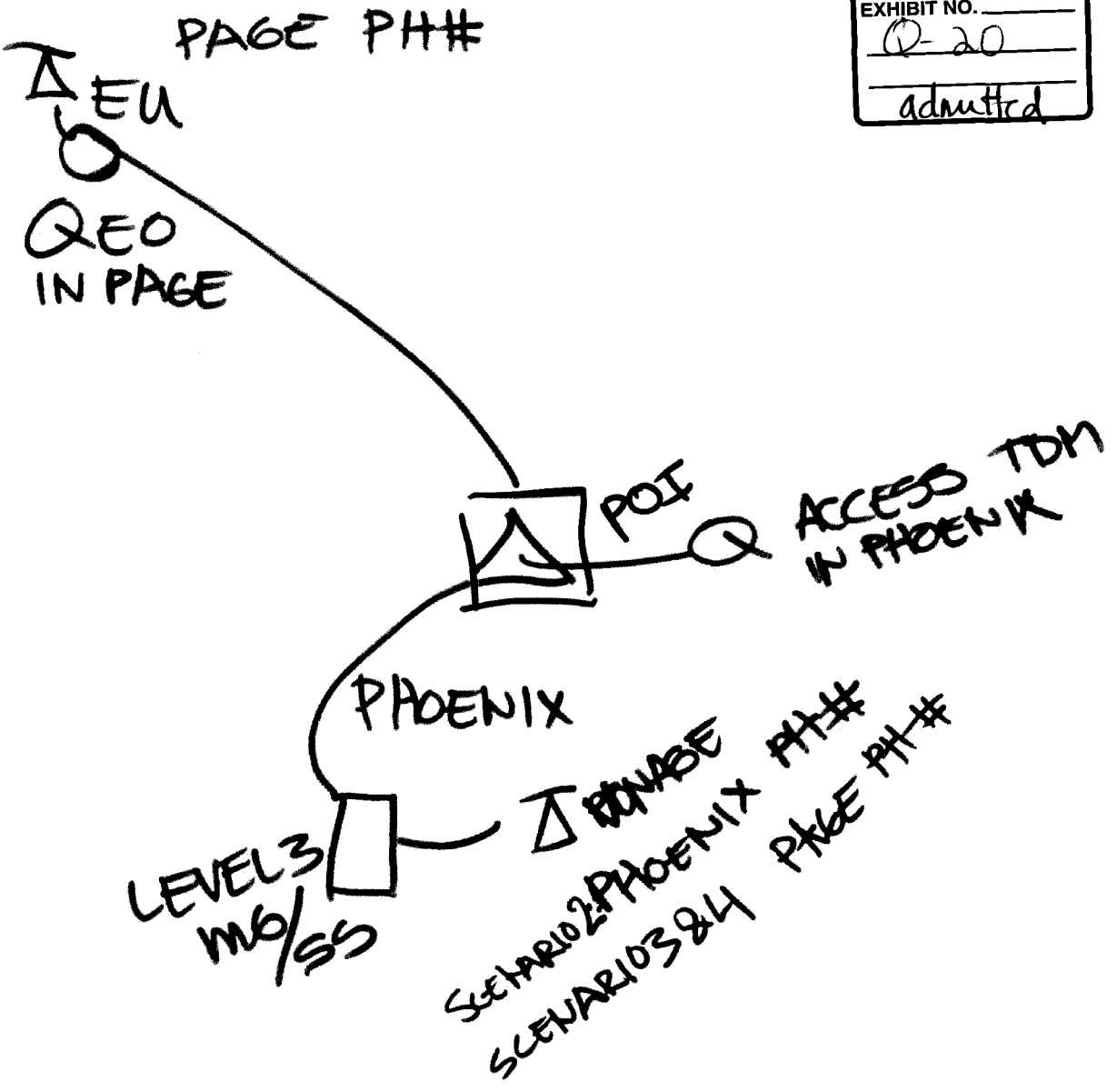
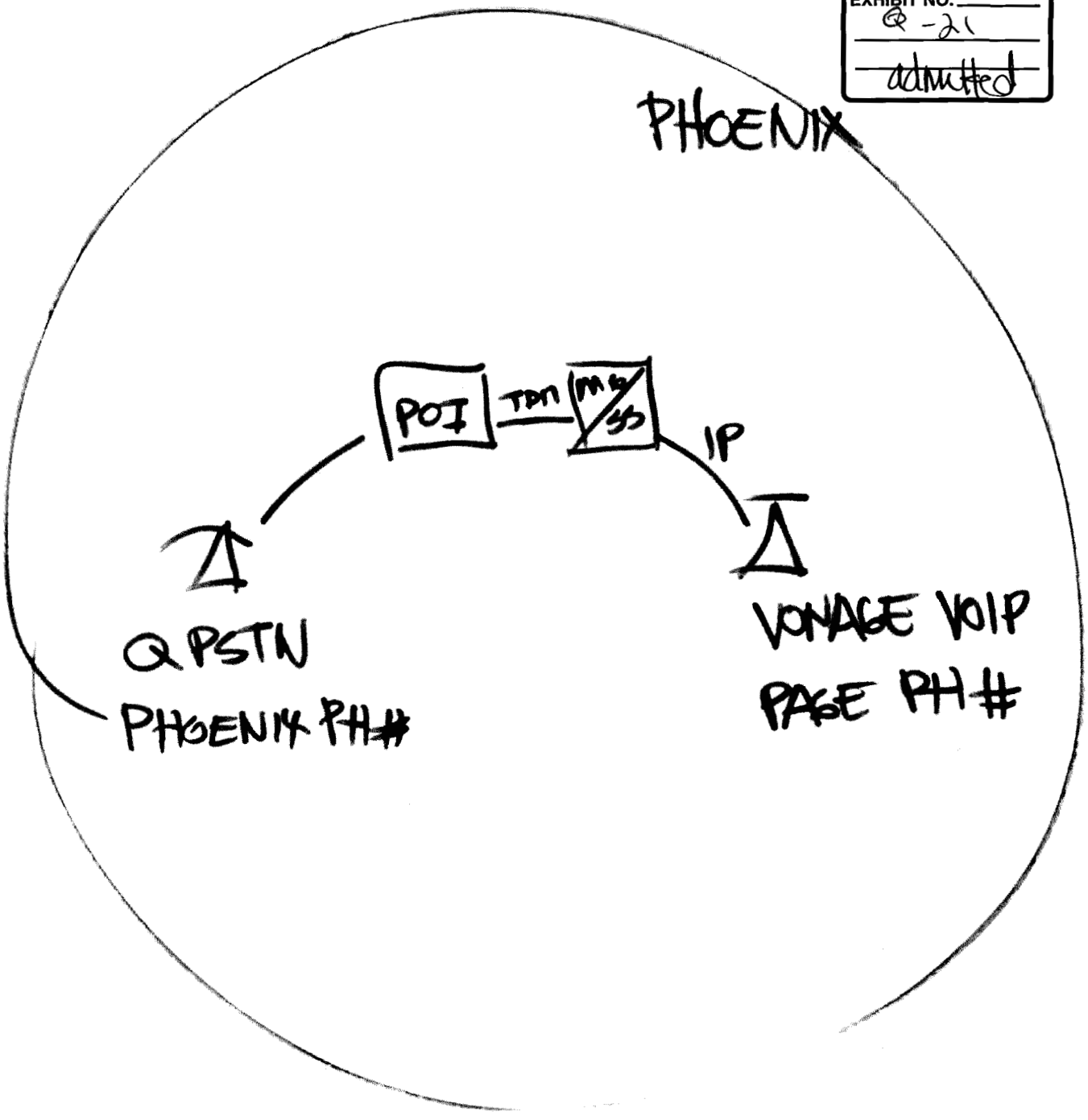


EXHIBIT NO. Q-21
admitted



OneFlex Routing

Qwest
Brotherson

..... PSTN Network. End User A calls a OneFlex Customer that has a telephone number assigned in the Phoenix LCA. QCC establishes a VoIP POP in the Phoenix LCA. Call routes from the QC PSTN network to the QCC VoIP POP in Phoenix Local Calling Area.

- - - - - - - - IP Network. Call is routed over the QCC VoIP Infrastructure IP network to End User B (Qwest OneFlex Customer) in Flagstaff. The traffic is delivered via the Internet. Customer Internet Connection. Call is routed from QCC VoIP Infrastructure over the Internet to customers Broadband connection and terminates on Customer VoIP capable equipment (CPE). The internet connection can be provided by any provider (e.g. Qwest DSL, Media Com, Cox cable, or wireless)

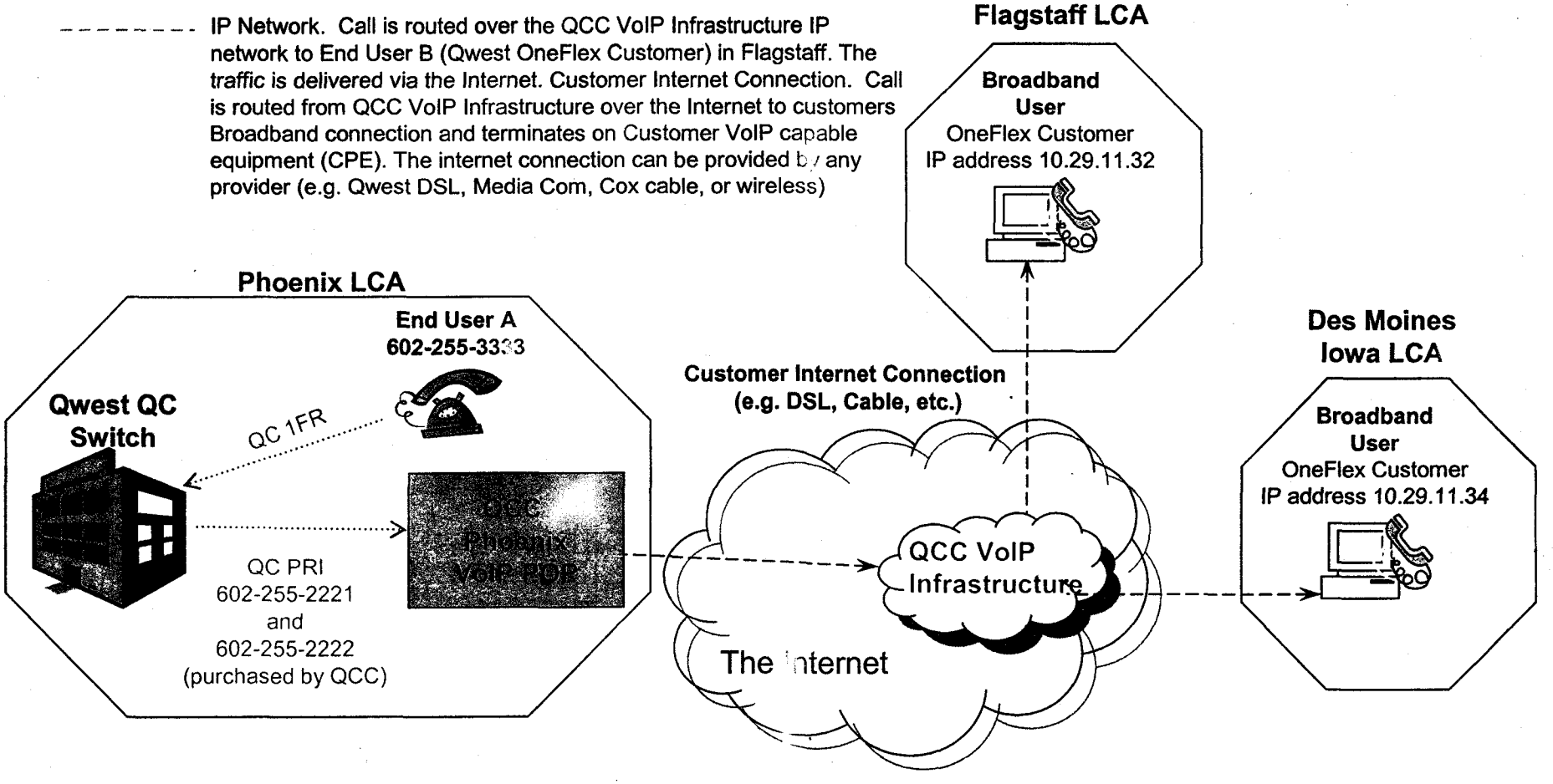


EXHIBIT
admitted Q-22
LB 9/9/05

AZ Linse Direct and Rebuttal Testimony Errata

Issue No. 1 Errata

For Qwest's proposed language Section 7.1.1 the first sentence and third (3rd) sentence, delete "Exchange Access and the parenthesis before the word "IntraLATA" and the parenthesis after the word "carriers" and add "and not by an IXC (IntraLATA LEC toll)" after the word "carriers"

First Sentence found at Mr. Linse's direct testimony Page 4 Line 1 through 4 and rebuttal testimony Page 3 Line 1 through 4:

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Exchange Service (EAS/Local traffic), ~~Exchange Access (~~IntraLATA Toll carried solely by local exchange carriers~~)~~ and not by an IXC (IntraLATA LEC toll), ISP-Bound traffic, and Jointly Provided Switched Access (InterLATA and IntraLATA) traffic.

Qwest's proposed language for the first sentence of section 7.1.1 should read as follows:

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Exchange Service (EAS/Local traffic), IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll), ISP-Bound traffic, and Jointly Provided Switched Access (InterLATA and IntraLATA) traffic.

Third sentence found at Mr. Linse's direct testimony Page 4 Line 6 through Page 11 Line 5 and rebuttal testimony Page 3 Line 6 through Line 11:

Interconnection, which Qwest currently names "Local Interconnection Service" (LIS), is provided for the purpose of connecting End Office Switches to End Office Switches or End Office Switches to local or Access Tandem Switches for the exchange of Exchange Service (EAS/Local traffic); or End Office Switches to Access Tandem Switches for the

EXHIBIT NO. Qwest-23
admitted
LB 9/16/05

exchange of IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll) or Jointly Provided Switched Access traffic.

Qwest's proposed language for the third sentence of section 7.1.1 should read as follows:

Interconnection, which Qwest currently names "Local Interconnection Service" (LIS), is provided for the purpose of connecting End Office Switches to End Office Switches or End Office Switches to local or Access Tandem Switches for the exchange of Exchange Service (EAS/Local traffic); or End Office Switches to Access Tandem Switches for the exchange of IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll) or Jointly Provided Switched Access traffic.

Issue No. 20 Errata

For Qwest proposed language Section 7.3.8 the fifth sentence, delete "Exchange Access (IntraLATA Toll) traffic" and add "IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll)" before the word "delivered"

Fifth sentence found at Mr. Linse's direct testimony Page 42 Line 24 through 27 and rebuttal testimony Page 33 Line 17 through 20:

The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and ~~Exchange Access (IntraLATA Toll) traffic~~ IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll) delivered to the other Party.

Qwest's proposed language for the fifth sentence of section 7.3.8 should read as follows:

The transit provider will be responsible for only its portion of this traffic, which will not exceed more than five percent (5%) of the total Exchange Service (EAS/Local) and IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll) delivered to the other Party.

RECEIVED SEP 0 6 2005

STATE OF IOWA
DEPARTMENT OF COMMERCE
UTILITIES BOARD

IN RE:	
LEVEL 3 COMMUNICATIONS, LLC.,	
Petitioner,	
vs.	DOCKET NO. ARB-05-4
QWEST CORPORATION,	VOLUME I
Respondent.	

Hearing Room
350 Maple Street
Des Moines, Iowa
Tuesday, August 30, 2005

Met, pursuant to notice, at 9:00 a.m.

BEFORE: THE IOWA UTILITIES BOARD

JOHN NORRIS, Chairman
DIANE C. MUNNS, Board Member
ELLIOTT G. SMITH, Board Member

COPY

EXHIBIT NO. Q-24
admitted
9/16/05 LB

EILEEN HICKS - CERTIFIED SHORTHAND REPORTER
EDIE SPRIGGS DANIELS - CERTIFIED SHORTHAND REPORTER

PETERSEN COURT REPORTERS
317 Sixth Avenue, Suite 606
Des Moines, IA 50309-4155
515/243-6596

DIRECT EXAMINATION

BY MR. DUBLINSKE:

Q. Mr. Greene, are you the same Mack D. Greene who caused to be filed in this matter supplemental prefiled testimony?

A. Yes, I am.

Q. And you are aware that both direct initial and rebuttal prefiled testimony were filed in this matter by Rogier Ducloo?

A. Yes, I am.

Q. And you are adopting Mr. Ducloo's testimony today?

A. Yes, I am.

Q. For each of those sets of testimony, the initial of Mr. Ducloo, the rebuttal of Mr. Ducloo and your supplemental, if I were to ask you those same questions that were prefiled today on the stand, would your answers be substantially the same?

A. Yes, they would.

MR. DUBLINSKE: With that, Your Honor, having already determined that the testimony and exhibits will be spread upon the record, I offer the witness for cross-examination.

CHAIRMAN NORRIS: Thank you, Mr. Dublinske.

1 Mr. Sather.

2 MR. SATHER: I'm not handling the

3 cross-examination. Mr. Dethlefs is.

4 CHAIRMAN NORRIS: Okay.

5 MR. DETHLEFS: Mr. Chairman, may I

6 approach the witness with the interconnection

7 agreement that was attached to the petition?

8 CHAIRMAN NORRIS: Yes.

9 CROSS-EXAMINATION

10 BY MR. DETHLEFS:

11 Q. Good morning, Mr. Greene.

12 A. Good morning.

13 Q. Just a few questions about your

14 background. Could you give me a brief description

15 of your educational background and your work

16 experience.

17 A. Absolutely. I have been in the

18 telecommunications industry close to 15 years now,

19 both as a customer-- My first job after leaving

20 Howard University was with a small telemarketing

21 firm in Washington, D.C., called the Smith

22 Company, where we managed significant

23 telecommunications services between our two

24 offices.

25 I worked there for seven years in a

1 number of different capacities: as an inside sales
2 rep on the telephone, as a sales manager or floor
3 manager, as we called them at the time; and my
4 last title there was director of operations, where
5 I was responsible for our telecommunications
6 contracts as well as our IT department.
7 I left the Smith Company to pursue
8 another opportunity with LCI International as an
9 applications engineer, where I assisted our direct
10 telecommunications sales teams. LCI was a small
11 regional carrier, primarily in the Midwest and the
12 eastern United States.
13 I assisted our direct sales team in
14 designing customer networks both for voice and
15 data.
16 From that job I moved into our marketing
17 department, as director of product marketing for
18 frame wheeling and ATM, and then was later
19 promoted to vice-president of voice and data
20 products as LCI was acquired by Qwest.
21 In my tenure at Qwest I also assumed the
22 role of vice-president of strategy in the products
23 group where I was responsible for pricing and
24 other strategic elements.
25 I left Qwest in 2002 to pursue another

1 opportunity with Quantum Bridge. They are a
2 passive optical networking equipment provider,
3 often discussed in fiber to the home and other
4 types of topologies. Quantum Bridge has since
5 been acquired by Motorola.
6 After leaving Quantum Bridge after a
7 downsizing, I worked on my own in a consulting
8 practice. Qwest was one of my clients during that
9 time, as well as other small and medium-sized
10 businesses in the Denver metro area.
11 For close to the last two years--it will
12 be two years in October--I've been at Level 3,
13 really in two capacities. Prior to my current job
14 I was director of customer access solutions, where
15 we were responsible for designing and coordinating
16 alternate carrier connections to the Level 3
17 network.
18 And now in my new role as director of
19 interconnection services I'm responsible for
20 approximately 150 interconnection agreements with
21 numerous CLECs, LECs and RLECs.
22 Q. In your testimony--your direct testimony
23 at page 18, line 12 you make the statement, "While
24 I am not a lawyer, I am generally familiar with
25 provisions of the 1996 Act and FCC rulings

1 particular provision, but that's not something
2 that we would object to if we somehow omitted it
3 in the language.
4 Q. If you could turn to page 45 of your
5 testimony, lines 12 through 16 you make the
6 statement, "for the relatively limited amount of
7 IXC traffic that Level 3 will deliver to Qwest for
8 further delivery to ITCs or other CLECs, Level 3
9 has agreed to send such traffic only to Qwest's
10 toll tandems where adequate recordings for the
11 third parties can be made."
12 Can you tell me what provision of Level
13 3's proposed language requires Level 3 to do that?
14 A. On that again, I'd have to do some
15 research, but if that language was omitted from
16 the contract, we would be happy to put it in.
17 Q. Let me ask you this question: When you
18 say that Level 3 has agreed to send such traffic
19 only to Qwest's toll tandems, are you agreeing
20 that you'll send it over future group D trunks?
21 A. No, I'm not.
22 Q. How are the adequate recordings going to
23 be handled at the toll tandems if it's not sent
24 over feature group D trunks?
25 A. Well, we have proposed to Qwest a system

1 questioning after I get through those.
2 CHAIRMAN NORRIS: Okay.
3 (Qwest Exhibits 115, 116 and 117
4 were marked for identification.)
5 MR. DETHLEFS: We'd like to mark the
6 response to request No. 56 as Exhibit 115, the
7 response to No. 57 as 116, and the response--or,
8 excuse me, the two-page document that has the
9 caption on the first page of (3)Connect Modem,
10 we'd like to mark that as Exhibit 117.
11 MR. CECIL: You know what, I don't think
12 we got a copy of 57. I think we got an extra of
13 56.
14 BY MR. DETHLEFS:
15 Q. I would ask the witness to look at the
16 document marked as Exhibit 117, which is the
17 two-page from the Level 3 website, entitled
18 (3)Connect Modem, and ask, is that the same
19 service that's referred to in the document we
20 marked as Exhibit No. 115, which is the response
21 to data request No. 56?
22 A. That is correct, it is the same service.
23 Q. Is this service the service that Level 3
24 now provides in Iowa?
25 A. Yes, it is the service we provide in

1 Iowa.

2 Q. And if you look at the two pages from the

3 website, Exhibit 117, it says that this service is

4 provided in 15,500 local calling areas, second

5 paragraph?

6 A. Yes, I see that.

7 Q. Is that true?

8 A. Yes, it is.

9 Q. And in the--if you look at the last four

10 lines of the-- Excuse me. If you could look at

11 the last sentence of the second paragraph, it

12 begins, "The monthly charge includes local dial-in

13 numbers, complete network coverage for a specific

14 region, modems to collect incoming traffic, and

15 managed routers."

16 My question is, is it fair to say that

17 with this service, Level 3 provides the Internet

18 functionality on behalf of ISPs.

19 A. I would consider that an incorrect

20 classification.

21 Q. What would you do to correct it?

22 A. Level 3 is providing the connectivity

23 functionality for ISPs.

24 Q. Let me ask this: If a person wants to

25 browse the web, it's Level 3 that's providing that

capability on behalf of the ISP within the service; isn't that correct?

A. Level 3 is providing the connectivity from that end user, their computer or modem. They dial a local number which gives them access to the Internet, and through that they can browse the web.

Q. And with this service it provides an end-to-end dial-up solution. Is that a fair statement? I believe the words are right in the first line of the--

A. Yes.

Q. Would it be fair to say that with this service Level 3 is a wholesale provider of basic functions that some ISPs provide themselves?

A. Yes, that would be a fair characterization.

Q. The ISP that's buying this service requires very little in the way of servers, routers, modems, because Level 3 provides this forum; correct?

A. No, that's not entirely true.

One of our major customers is one of the largest ISPs out there today, and they have an extensive server plant that they deploy to

validate users onto the network as well as provide unique content for those users.

Q. Would it be true that the ISP would require very little in the way of servers, routers, or modems for the basic browsing function?

A. Again, I would say that that again is not true. To allow that routing function, as I testified earlier, to things such as domain name servers, as an example, where again I type in my web page name, that has to get translated to an IP address. You've got to have a significant infrastructure to support the users to get that connectivity.

And there are others--service management, billing, customer service care, there may be software installation that has to be downloaded, so you typically find a significant infrastructure that the ISPs support.

Q. Where are the modems, routers, and servers that are used to provide this service in Iowa located?

MR. CECIL: Objection, Your Honor. To the extent we get into other information that Level 3 has provided pursuant to confidentiality

1 agreements, we're more than happy to go there.
2 Just make sure that the record is marked
3 appropriately.
4 MR. DETHLEFS: That's the only question I
5 have on this, so if it's confidential, then we
6 need to go into confidential; if it's not, we
7 don't.
8 CHAIRMAN NORRIS: I think there's a way
9 to answer that that is not confidential.
10 MR. CECIL: That's fine. To the extent
11 it doesn't go there, we're more than happy. Thank
12 you.
13 CHAIRMAN NORRIS: Restate it for the
14 witness.
15 BY MR. DETHLEFS:
16 Q. Where are the modems, routers and servers
17 that Level 3 uses to provide this service to Iowa
18 ISPs located?
19 A. They are located in Chicago, Illinois.
20 Q. Now, if you look at the document that we
21 marked as Exhibit 116, it's the data request
22 response to No. 57, A and B.
23 The statement's made that, "The
24 conditions stated in the question would never
25 apply as Level 3 does not provide local numbers

1 without providing modem functionality for its ISP
2 customers that subscribe to our dial-up access
3 service."
4 Is it true that Level 3 will not provide
5 local numbers for ISPs unless it also provides the
6 modem functionality for customers that subscribe
7 to its dial-up access service?
8 A. Yes, that's true.
9 Q. And when you refer to Level 3's dial
10 access service, are you referring to the
11 (3)Connect Modem service?
12 A. Yes, I am.
13 Q. So the bottom line is, unless Level 3
14 provides the modem functionality, it doesn't
15 provide the local access numbers for ISPs?
16 A. That is correct.
17 Q. When we're using the term modem
18 functionality, what do you mean by that?
19 A. The term modem functionality is the--
20 literally the modulation and remodulation of the
21 signal.
22 What happens is the end user's computer
23 web page makes literally an IP request via other
24 protocols to the Internet.
25 That request is taken from their modem,

where it's literally converted from a data or IP signal into an audio signal. There's a modem on the other end that in effect answers that call, remodulates the signal back into the data signal, and then is transmitted across an IP network.

Q. In the circumstance in which an ISP prefers to have its own modems, can the ISP obtain local access numbers from Level 3?

A. That is not a product offering that we have at this time.

Q. Let me ask you a couple of questions regarding call records and then I'll be done.

Does Level 3 contend that Qwest is obligated by industry standards to populate the OLI field?

A. No, we do not contend that.

Q. And does Level 3 contend that there's an industry requirement that requires telecommunication providers to populate the other company number or the operating company number?

A. I don't believe there is an obligation to do that. That's where we run into, you know, some issues in transfer traffic.

MR. DETHLEFS: I have concluded my direct examination--my cross-examination. It seemed like

IOWA – ARB-05-4
LEVEL 3 SUPPLEMENTAL RESPONSE TO
REQUEST NO. 57 a, b

The following set of requests relate to situations where, instead of Level 3 providing modems and routers for its ISP customers, the ISPs obtain local telephone numbers through Level 3 and traffic is gathered from Qwest by Level 3 on behalf of such ISPs, but the ISPs provide their own modems and routers for themselves.

a. Does Level 3 provide service as described above to any ISP that provides service to customers in Iowa? If so, how many ISPs that provide service to customers on that basis provide service to customers in Iowa.

b. How many ISP customers identified in the previous subpart, physically locate their modems and routers in Iowa and how many physically locate their modems and routers in other states?

c. When Level 3 provides service to ISP customers as described in this request, does the traffic go through a Level 3 switch before being delivered to the ISP's modems and routers? If not, does the traffic go through any Level 3 equipment between its POI and the modems and routers of the ISP? If so, please describe all such equipment.

d. When Level 3 provides service to ISP customers as described in this request, how does Level 3 connect its equipment to the routers and modems of the ISP (e.g., high-capacity circuit, over the Internet)?

RESPONSE:

Subject to and without waiving its objections, Level 3 responds as follows:

c. No. Level 3's network is continuously upgradeable and the network is constantly upgraded to provide the best services at the lowest cost using the latest technology.

d. When Level 3 provides service to ISP customers as described in this request, Level 3 connects its equipment to the routers and modems of the ISP according to sound engineering principles, which engineering solution depends upon traffic volumes.

SUPPLEMENTAL RESPONSE (8/24/05):

Level 3's response to subparts a and b: The conditions stated in the question would never apply as Level(3) does not provide local numbers without providing modem functionality for its ISP customers that subscribe to our dial access service.

Response by: Mack Greene

EXHIBIT NO. Q-25
admitted
LB 9/16/05

PENGAD-Bayonne, N.J.
EXHIBIT
L-1
admitted

DOCKET NO. T-01051B-05-0350, T-03654A-05-0350

PETITION OF LEVEL 3 COMMUNICATIONS, LLC FOR COMPULSORY ARBITRATION WITH QWEST CORPORATION	§ § §	BEFORE THE ARIZONA CORPORATION COMMISSION
UNDER FTA RELATING TO RATES, TERMS, AND CONDITIONS OF INTERCONNECTION	§ § § §	

DIRECT TESTIMONY OF ROGIER R. DUCLOO
ON BEHALF OF LEVEL 3 COMMUNICATIONS, LLC

July 15, 2005

Table of Contents

I. Introduction 3

II. Statement Of Scope And Summary 4

III. ISSUE 2: Combining Different Traffic Types on Interconnection Trunks 19

IV. ISSUE 5: ESP Traffic - VoIP Traffic 54

XII. Conclusions 89

DIRECT TESTIMONY OF ROGIER R. DUCLOO
ON BEHALF OF LEVEL 3 COMMUNICATIONS, LLC

I. Introduction

Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND BUSINESS ADDRESS.

A. My name is Rogier R. Ducloo. I am a Director with Level 3 Communications, LLC. My business address is 1025 Eldorado Blvd, Colorado, 8021. I am filing this testimony on behalf of Level 3 Communications, LLC of Broomfield, CO.

Q. PLEASE REVIEW YOUR EDUCATION AND RELEVANT WORK EXPERIENCE.

A. I received a Bachelor of Science in Business and Management from the University of Amsterdam, the Netherlands in 1996. I've worked at Level 3 since 1998. Most of my experience with Level 3 has been with the company's network group. I've worked in network provisioning, network engineering & design, and network planning & project management of network deployment. Since 2002, I have worked in network planning and regulatory support. Prior to joining Level 3 I worked in business development and international institutional sales.

II. Statement Of Scope And Summary

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I am testifying on behalf of Level 3 Communications, LLC ("Level 3"), regarding interconnection agreement terms and conditions between Level 3 and Qwest that we have been unable to resolve during negotiations. I will address various technical issues to provide a network and engineering perspective for the issues that are in dispute in this case. As part of my presentation, I will also address some high-level technology policy issues that are embedded in the nation's communications laws, as I understand them, and how those policies relate to this case.

Q. PLEASE SUMMARIZE YOUR TESTIMONY, INCLUDING YOUR CONCLUSIONS AND RECOMMENDATIONS.

A. Level 3 is a facilities-based Competitive Local Exchange Carrier ("CLEC"). To facilitate fair competition, and for Level 3 to meet customer demands, Level 3 must be permitted to interconnect with Qwest on reasonable terms, rates and conditions. Moreover, because of Level 3's experience operating the largest next-generation, end-to-end Internet Protocol ("IP")-based network in the United States, Level 3 is uniquely positioned to propose terms that are not only reasonable and technically sound, but also consistent with the overall public

interest in the continued technical advancement of the nation's communications infrastructure.

Qwest, in contrast, takes an extremely limited and one-sided view of interconnection. The Qwest-sponsored provisions to which Level 3 objects would cause inefficiencies in the network by, among other things, requiring technically unnecessary trunks and facilities, as well as changes to efficient interconnection architecture. As a result, Qwest's proposals are detrimental to overall network efficiency, quality, and to Level 3's ability to offer services in furtherance of the public interest in facilitating and developing a competitive telecommunications market. As summarized here and as explained in greater detail below, Qwest's one-sided proposals cause problems at several levels.

First, Qwest proposes to place a number of restrictions on switching and trunking operations. It does this through the definitions of various terms in the Agreement. None of these restrictions has any technical basis. In each case, Qwest would impose engineering inefficiencies on Level 3 (and in some cases on Qwest itself as well) for no reason other than, as far as I can tell, to impede Level 3's growth or to extract extra revenues from us. These definitional issues affect the outcome

of Issues 1 and 2 and I deal with the definitional concerns in the course of discussing the relevant issues.

Second, the companies disagree on the how to divide the traffic we send each other into different trunk groups. We agree that when total traffic between Level 3 and a particular Qwest end office switch reaches a certain reasonable volume, we will establish a direct trunk group between that end office and Level 3. The technical and engineering efficiency of both parties' networks will be maximized by including all traffic between Level 3 and the affected Qwest switch on a single large trunk group. Qwest, however, wants us to establish multiple trunk groups between each pair of switches, with the traffic divided based on regulatory classifications that have no engineering significance. This is, pure and simply, inefficient. I understand that governing law requires the terms and conditions of interconnection to be "reasonable." From an engineering perspective, what Qwest is proposing is patently unreasonable. Level 3 fully recognizes that different regulatory "types" of traffic might be subject to different rates; but we have a proposal for dealing with that situation simply and efficiently, without degrading network efficiency and imposing needless costs, discussed below.

Third, in Issue 4 Qwest is arguing that certain types of Enhanced Service Provider ("ESP") traffic, including specifically VoIP traffic, should be included within the regulatory category of switched access traffic. My understanding is that the status of traffic as ESP traffic depends on certain technical characteristics of the entities that provide it, so that entities that qualify as ESPs are entitled to have their traffic rated on an end-user basis, as opposed to on a carrier basis. I understand that there are legal and regulatory considerations affecting this issue which Level 3's lawyers will address in our filings. From a technical perspective, however, it is clear that VoIP traffic is a form of information service, that is, the VoIP providers that Level 3 serves meet what I understand to be the relevant criteria for having their traffic treated as end-user, as opposed to carrier, traffic. In this regard, and irrespective of how this traffic is rated (reciprocal compensation versus access), Qwest also seeks to have ESP traffic, including VoIP traffic, routed over distinct trunk groups and perhaps over distinct facilities. For the reasons noted above, this is grossly inefficient and patently unreasonable.

In Issue No. 3 the ISP/RUF (VNXX) issue, Qwest is trying to shift the financial responsibility for maintaining its own network, on its side of the Point of Interconnection ("POI"), to Level 3. As a contractual matter, the parties agree that the cost of facilities used to connect their networks will be split based on

relative use, so that cost responsibility follows in proportion to which party originates which portion of traffic on the affected facilities. But what Qwest seeks to do is to exclude from the calculation the overwhelming majority of traffic that it sends to Level 3. As a simple matter of mathematics, this sleight-of-hand would relieve Qwest of cost responsibility for facilities that Qwest uses (in the sense of originates traffic over) much, much more than Level 3 does. In certain cases (so-called "VNXX" traffic), Qwest would go even farther, and would send Level 3 bills for originating intrastate access charges. Again, Level 3's lawyers will address the legal flaws in Qwest's position, but from an engineering perspective, treating VNXX calls like intrastate toll traffic is absurd.

The **LIS NRC** section continues the issue of who is responsible for the cost of interconnection, and explains why Qwest should not be able to pass the cost of installation and maintenance of its own network to Level 3.

Finally, the section of the **Determination of Traffic Types** provides a description of how Level 3 proposes to calculate the traffic mix on trunks. The section also explains a dispute over the new way that Qwest is proposing to determine whether a call is "local" or not. New contract language is proposed in this section to

specify Level 3's proposal on how to calculate and manage traffic factors for billing purposes.

Q. TO PROVIDE SOME BACKGROUND, PLEASE GIVE A BRIEF OVERVIEW OF THE DIFFERENCE BETWEEN THE QWEST CIRCUIT SWITCH-BASED NETWORK AND LEVEL 3'S SOFTSWITCH-BASED NETWORK.

A. Qwest's network is comprised of circuit switches connected to each other by fiber and copper transmission paths, and to end user customers largely by means of copper loops. Qwest's Class 4 (tandem) and Class 5 (end office) switches are the "brains" of its network. Like the traditional PSTN of which it is a part, the Qwest network operates using a centralized architecture which evolved starting more than 50 years ago with the introduction of automatic (originally, mechanical) circuit switching. The entire design objective of the PSTN was to do just one thing — deliver voice calls — very, very well. This design objective led to the old Bell System's implementation of computerized switches in a hierarchical architecture, the development of time-division multiplexing for use initially on copper and later on optical fiber, as well as the design of customer premises equipment and the specification of the interfaces between that equipment and the PSTN. The goal, and the result, of this focus was a network in which end-to-end

network resources are devoted to the completion of large volumes of plain old voice telephone calls.

Level 3's network is quite different, arising not out of the hierarchical, circuit-switched PSTN but instead out of the distributed, open architecture of the Internet. The Internet evolved as a scientific, educational and military network outside the PSTN, beginning in the 1960s. The Internet uses packet switching, not circuit switching. Rather than devoting end-to-end network resources to communicate information (voice or otherwise), a packet switched network breaks the information down into pieces (packets) and then separately routes the packets to their destination, often by very diverse routes, based dynamically on which switches (called "routers" on the Internet) and links are free or busy on a near-instantaneous basis. The packets are then reassembled into the proper order at the destination, so that the information is properly delivered.

Using Internet Protocol technology, Level 3 operates a distributed softswitch architecture. All internal connections between nodes on Level 3's network are by means of high-capacity optical fiber. Level 3's softswitch- and IP-based network is based on an open architecture that optimizes the use of computing technology to maximize the efficiency of the network infrastructure transport layer.

Softswitch technology is able to bridge the gap between legacy circuit-switched technology and more advanced IP-based networks. Because it knew that its customers would need to interface with the PSTN, Level 3 retro-engineered its network — from one perspective, "dumbed it down" — to be able to exchange IP-based traffic with the PSTN.

A simple metaphor illustrates the difference. Qwest's network is like a funny kind of highway system. Imagine dedicated roads leading traffic from one point to another on fixed highways with multiple lanes, like the real highway system. On a circuit-switched network like Qwest's, however, when there is a car running down one lane of the highway — say on a trip from Seattle to Phoenix — no other car is allowed be in its lane, all the way from Seattle to Phoenix. Only when the first car has completed its journey can any other car use "its" lane.

In contrast, Level 3's softswitch and router based network is like the human brain. It is a smart, highly interconnected network that functions in parallel, so that traffic can take many different paths to get to the same place, and packets containing bits from different conversations can travel the same path at the same time for part, or all, of the route.

From Level 3's perspective, the technical superiority of its flexible, IP-based network is obvious — even for the traditional mainstay of the PSTN, voice calls. From both an engineering and business perspective, this is extremely threatening to PSTN operators like Qwest, who have enormous amounts of money and expertise invested in what is manifestly an old-fashioned and increasingly obsolete way of doing things. It is only natural that those with such a heavy investment in old technology and old knowledge would do everything possible to delay the day when they are overtaken by the new. For that reason, it is understandable why Qwest would want to shoe-horn Level 3's operations, as much as possible, into network architectures, regulatory classifications, and business models that Qwest understands, and that are in harmony with Qwest's own network and operations. But the entire point of introducing competition into the telecommunications business — at least from my technical perspective — is to make it possible for consumers to enjoy the benefits made possible by newer and more technically sophisticated networks. In assessing what constitutes "reasonable" terms for interconnection in this proceeding, therefore, I urge the Commission to recognize and take account of this fact. I submit that on the issues I address, Qwest is acting primarily to avoid the impact of new technology-based

competition on its legacy network, not in the best interest of the citizens of Arizona.

Q. WHERE DOES LEVEL 3 FIT INTO THE BROADER COMMUNICATIONS INDUSTRY?

A. Level 3 is not a traditional competitive local exchange carrier ("CLEC").

In broad terms, many of the CLECs that were created following the 1996 Act had a business model that boiled down to, "do what the incumbent does, only 5% better." As the regulatory authorities have come to appreciate the need to encourage competition based on investment in competing facilities, this business model has become increasingly unviable. Many of the CLECs that have gone into bankruptcy or been acquired by rivals had placed key reliance on this now-superseded business model.

Level 3, however, takes a very different approach. Level 3's business focuses not only on the traditional public switched telephone network (PSTN), but also — in fact, even more directly — on the Internet. As noted above, Level 3's entire network architecture arose out of the architecture of the Internet. The Internet uses packet switching, mainly developed in the 1970s, as opposed to circuit switching, developed, essentially, in the 1870s. (When the original, 19th Century

version of "Ernestine the Operator" plugged a line into her circuit board, she was doing just what circuit switches do today: creating a dedicated path between two customers for the duration of their call.)

While Level 3 certainly functions as a "local" exchange carrier, in fact Level 3's operations are nationwide, and more, in scope. Level 3 has billions of dollars invested in its network, which consists of an all fiber-optic backbone connected to 68 markets in the U.S. and 17 markets in Europe. Level 3 has over 16,000 route miles of fiber in the US and an additional 3600 route miles in Europe. Riding on this fiber backbone, Level 3 maintains a separate, private IP network, composed of high-speed links (carried over the fiber optic facilities) and core routers (which direct enormous volumes of packetized traffic to the appropriate destinations). The Level 3 IP backbone is connected to the public Internet by means of hundreds of peering arrangements with other large Internet entities, located in approximately 30 different metropolitan areas.

One key technical contrast between Level 3 and an ILEC is that, unlike the ILECs, Level 3 embraces and seeks out robust interconnection with other networks. As a result, Level 3 is extensively interconnected with such networks. Its central offices are state-of-the-art facilities in the heart of 70 major

metropolitan areas, which range in size from 50,000 to 550,000 square feet of equipped floor space. In these locations, Level 3 terminates both local and intercity fiber networks, as well as locates its high-speed transmission equipment, routers, and Softswitch equipment. (Softswitch technology bridges the gap between legacy circuit-switched technology and more advanced IP-based networks.)

Level 3 believes that, while other entities in the communications business — such as, frankly, Qwest — struggle to adapt to change, Level 3, to quote a former President, ***is*** the change.

Q. AT A VERY HIGH LEVEL, WHAT CONSIDERATIONS OF TECHNOLOGY POLICY SHOULD GUIDE THE COMMISSION'S DECISIONS IN THIS CASE?

A. From a high-level perspective, I believe that three key technology policies are embedded in the nation's communications laws and have a direct bearing on this case.

First, at a high level, the Commission should make decisions that encourage development and deployment of new technology and innovative, new services. The history of the telecommunications industry is one of sustained — one might

1 even say unrelenting — technical and service-oriented innovation. On some
2 level, each decision the Commission makes here will either facilitate and
3 encourage such innovation, or will tend to preserve the *status quo.* The 1996 Act
4 is not about preserving the *status quo.* It is about bringing new and innovative
5 services to all segments of the industry.

6 Second, the Commission should promote and encourage the unfettered growth of
7 the Internet. Section 230 of the Communications Act, and any number of FCC
8 pronouncements, embody a clear policy to promote the growth and development
9 of the Internet and consumer access to it. We are now so accustomed to
10 contacting friends by email, finding information from Google or Yahoo or
11 MapQuest, and downloading our favorite music from iTunes or RealNetworks,
12 that it is easy to forget that these and other incredibly useful services and
13 applications did not just magically appear, and the environment in which they
14 grew and developed was not some stroke of luck. To the contrary, the wide-open
15 environment that made these services possible was the result of conscious policy
16 choices to keep regulation away from the Internet. As Internet applications such
17 as Voice over Internet Protocol ("VoIP") services are beginning to make inroads
18 on incumbents' businesses, the policy of keeping the Internet unregulated is
19 coming under increasing assault.

1 Third is to encourage competition in telecommunications markets. The
2 Commission, therefore, should in each case ask whether deciding for or against
3 Level 3 would encourage the development of competition. Although on some
4 level this is an "economic" rather than "technology" policy consideration, in fact
5 there is an intimate link between promoting competition and promoting the
6 development and deployment of new technology. Incumbent monopolists have
7 very little incentive to deploy new technology. New technology disrupts settled
8 ways of doing things. It requires capital expenditure at the outset even if it saves
9 money in the long run. People have to be trained in how to best use it. And,
10 because it is new, it is in some sense inherently risky in that it might not work
11 entirely as anticipated, it might affect other markets in which the business is
12 operating, etc. Businesses in general will avoid these "hassles" if they can. A
13 competitive environment, however, is a situation in which these things cannot be
14 avoided and where, to the contrary, businesses are forced to invest and innovate in
15 order to survive and prosper. So, from this perspective, promoting competition is
16 an important way to promote the development and deployment of new
17 technology.

18 **Q. HOW DO THESE POLICIES RELATE TO EACH OTHER?**

1 A. While they may conflict in some situations, from the perspective of promoting
2 technological development, these policies are mutually reinforcing. As just noted,
3 promoting competition creates an environment in which firms are free to innovate
4 and deploy new technology. The development and deployment of new and
5 innovative technology, of course, stimulates and enables competition. And the
6 flexible, advanced capabilities of the Internet simultaneously depend on and
7 enable both competition and technical innovation.

8 **Q. AS YOU UNDERSTAND IT, HOW DO THESE POLICY**
9 **CONSIDERATIONS RELATE TO THE LEGAL AND REGULATORY**
10 **CONTEXT OF THIS CASE?**

11 A. While I am not a lawyer, I am generally familiar with the provisions of the 1996
12 Act and FCC rulings relating to telephone competition — both of which have a
13 strong technology policy component. With that perspective, I would note that
14 several of the key issues separating the parties relate to interconnection of their
15 networks, under Section 251(a)(1) and Section 251(c)(2) of the Communications
16 Act. Section 251(c)(2) requires that terms and conditions of interconnection be
17 "reasonable." That is a relatively open-ended standard, so it is helpful to
18 articulate some specific policy considerations that should guide the Commission
19 in determining what is and is not "reasonable."

Second, as I understand it, under Section 251(d)(3), the Commission is allowed to impose requirements regarding interconnection that are not specified in the federal law, as long as those additional requirements are "consistent with the requirements of" Section 251. In considering the question of whether a particular obligation not literally set forth in the Act is "consistent with the requirements" of Section 251, to understand the policies and objectives that underlie that portion of the law — which, I believe, the policies articulated above clearly do.

Q. HOW DOES LEVEL 3'S APPROACH TO THE INDUSTRY RELATE TO THE KEY POLICIES AT ISSUE IN THIS CASE, AS YOU HAVE DESCRIBED THEM ABOVE?

A. Level 3's network embodies innovation and new technology. Its services facilitate and encourage access to and development of the Internet. And, it provides competition across a wide spectrum of telecommunications markets. From Level 3's perspective, its entire business plan is consistent with, and dependent on, the pro-technology policies underlying the 1996 Act.

III. ISSUE 2: <u>Combining Different Traffic Types on Interconnection Trunks</u>

<u>Statement of the Issue</u>: Qwest wants Level 3 to provision separate trunk groups for different types of traffic, thus forcing Level 3 to set up duplicate, inefficient trunk groups to every Qwest end office and tandem office switch.

Q. WHAT IS LEVEL 3'S POSITION ON THIS ISSUE?

A. Level 3 and Qwest should not be required to set up different trunk groups for different regulatory "types" of traffic. Instead, all types of traffic going from Level 3 to Qwest (local and toll, interLATA and intraLATA, interstate and intrastate, "telecommunications service" or "information service," circuit switched end-to-end or IP-enabled) should be combined on the same trunk group along a given route. I understand that regulatory rules might require that different types of traffic be subject to different rating regimes, but that is no reason to degrade network efficiency by handling technically equivalent traffic in different ways as a matter of network engineering and architecture. I note in this regard that Level 3 has agreements with the 3 other RBOCs, covering 39 states and the District of Columbia that allow for the most network-efficient exchange of all types of traffic. Qwest is a real outlier on this issue.

Q. WHAT IS QWEST'S POSITION?

A. Qwest wants Level 3 to order and provision multiple, separate trunk groups to every tandem and end office in the state. They want one set of trunk groups for local and IntraLATA traffic, and another set of trunk groups for InterLATA

1 traffic. If they will accept IP-enabled traffic at all — which they appear to contest
2 — they want that on separate trunks too. From an engineering perspective,
3 setting up all these separate trunk groups for traffic going to and coming from the
4 same place is grossly inefficient. I submit that it cannot be considered a
5 "reasonable" condition of interconnection.

6 **Q. WHAT IS A TRUNK?**

7 A. A trunk is a logical connection between two switches, provisioned by means of
8 physical facilities between those two switches. The physical facility is not the
9 trunk. It may be any appropriate medium — copper, optical fiber, microwave
10 radio, coaxial cable, etc. The trunk is the logical path ***carried on*** the physical
11 facility. The term "trunk" arises from within the PSTN, so, not surprisingly a
12 trunk refers to a single voice-grade connection, capable of carrying one voice call
13 between two switches.

14 **Q. WHAT IS A TRUNK GROUP?**

15 A. A trunk group is a collection trunks, normally (but not necessarily) provisioned
16 over the same physical facility connecting two switches, configured to operate as
17 a cohesive unit when delivering multiple voice connections between the two
18 switches. You can think of the physical facility carrying a trunk group as

completely unmarked road — just a wide concrete path between two cities. Each individual lane that we paint on the highway is a trunk. All the lanes going together in the same direction are a trunk group. The wider the highway, the more lanes it has, and the more traffic it can carry.

Q. HOW DO YOU MEASURE THE CAPACITY OF TRUNK GROUPS?

A. A single trunk — that can carry a single voice conversation — is known as a "DS0." Putting 24 DS0s together creates a DS1, which is the basic unit of carrier-to-carrier trunking in the PSTN. Putting 28 DS1s together creates a DS3, which is equivalent to 672 DS0s. (For historical reasons, there is no "DS2.") DS0s, DS1s and DS3s can all be carried on any normal transmission medium (copper, fiber, or radio).

More modern, high-capacity networks exchange traffic using optical fiber connections. The data-carrying capacity of optical fiber utterly dwarfs the capacity of copper wires. The smallest normal unit of capacity on an optical network is an OC-3, which is the equivalent of three DS3s. Other common capacity measures for optical networks are the OC-12 (12 DS3s), the OC-48 (48 DS3s), and the OC-192 (192 DS3s).

Q. HOW DO TELECOMMUNICATIONS ENGINEERS DECIDE HOW MUCH CAPACITY TO PUT INTO PLACE BETWEEN TWO SWITCHES?

A. At a very high level, the more traffic that will flow between the switches, the bigger the trunk group you will put into service. But it is actually more complicated than that.

Think about the highway example discussed above. Imagine that you are trying to design a highway between a large city and a populous suburb. You would not look at the number of cars driving between the city and the suburb at 3:00 on Sunday morning. And, although perhaps not as obvious, you would not just look at the total number of cars that travel that route over the course of a day or week or month. Instead, to properly design the highway, you would look at how many cars are trying to travel that route at the very same time, at rush hour on the busiest day of the week. That way, you would know how much traffic your new road will need to be able to handle when it is at its busiest. ***That*** will tell you how big to make your highway.

This same principle applies to deciding how big to make trunk groups between switches. Different routes that serve different types of customers have different

"rush hours" (called "busy hours" in the telecommunications business). A route between switches that mainly serve business customers might have a busy hour between 9:00 and 10:00 a.m. when people arrive at their offices for work. On the other hand, a route between switches that mainly serve residential customers might have a busy hour between 3:00 and 4:00 p.m. as children get home from school and they and their parents start calling each other to discuss homework, social events, or the evening's plans.

There is a final, but critically important, consideration in determining how large trunk groups should be. This issue is known as "trunking efficiencies."

Q. WHAT DO YOU MEAN BY "TRUNKING EFFICIENCIES?"

A. For reasons which I will briefly explain below, it turns out that, while the number of trunks that you need in a trunk group to carry a given amount of busy hour traffic definitely increases as the amount of traffic increases, the number of trunks goes up at a ***slower rate*** than the traffic goes up. If the current amount of traffic is carried on a single DS1 (24 DS0s), it will ***not*** require three DS1s to carry three times as much traffic. Instead, it will require, perhaps, only two DS1s. Moreover, this effect continues as the traffic growth get larger, so that ten times as much

busy hour traffic will not require anything near a 10-fold increase in the number of trunks.

In practical terms, this means that carriers can greatly conserve on the number of trunks they need to establish between two switches, by combining as much of the interswitch traffic as possible onto a single, large trunk group.

Q. WHAT TRUNKING IS AT DISPUTE IN THIS ISSUE?

A. There are several issues. The first has to do with handling incoming (to Qwest) interLATA traffic. The bulk of traffic between Level 3 and Qwest is "local" interconnection traffic. However, Level 3 also has some InterLATA traffic that it carries for IXCs that must be delivered to Qwest customers. Today, Level 3 routes this traffic to 3rd parties (IXCs) for completion to Qwest. These 3rd party IXCs price this service at relatively high rates, causing this to be an expensive solution for Level 3. Level 3 would like to complete this traffic directly to Qwest. Unfortunately, Qwest wants to require Level 3 to use separate trunk groups for this traffic, rather than simply to deliver this traffic on existing interconnection trunks.

Q. IS LEVEL 3 TRYING TO AVOID PAYING ACCESS CHARGES ON THIS IXC TRAFFIC?

1 A. Absolutely not. Level 3 agrees that this traffic is subject to access charges, and
2 has language in its proposed agreement that provides for the payment of those
3 access charges. However, for the reasons explained briefly above, it would be
4 technically much more efficient to include this traffic on the same trunk group
5 that Level 3 uses to deliver "local" traffic to Qwest. That would allow Level 3
6 (and Qwest) to take advantage of the trunking efficiencies discussed above.

7 **Q. WHAT OTHER TRUNKING ISSUES EXIST BETWEEN LEVEL 3 AND**
8 **QWEST?**

9 A. Qwest seems reluctant to accept incoming IP-enabled traffic (that is, traffic that
10 originated by means of a broadband data connection as opposed to a normal
11 telephone) at all. To the extent that it will accept the traffic, however, it wants
12 that traffic, too, to be on trunks other than the existing "local" interconnection
13 trunks. In addition, Qwest may even want separate trunking for some calls from
14 its customers to ISPs served by Level 3.

Q. IS THERE ANY TECHNICAL REASON TO REQUIRE SEPARATE TRUNK GROUPS FOR LOCAL, INTRALATA, INTERLATA, ISP-BOUND, AND/OR IP-ENABLED CALLS?

A. No. Although various kinds of calls might begin in non-PSTN format, or be transported some or all of the way along their journey in a non-PSTN format (such as IP-enabled), Level 3 delivers all of its traffic bound for Qwest subscribers in standard PSTN circuit switched format and standard SS7 signaling, and receives all traffic from Qwest in that same, standard format. (As I mentioned above, one of the capabilities of our softswitches is precisely to do the necessary conversions from IP to PSTN format and vice-versa). So, all traffic coming from Qwest is obviously in normal PSTN format, and by the time we deliver any this traffic to Qwest, it is all in that same format as well — no matter what transformations and changes it may undergo at other parts of its journey.

Now, not surprisingly, Qwest and Level 3 have some disputes about the proper charging regime to apply to traffic that might fall into different regulatory categories. But no matter how those disputes might turn out, there is absolutely no technical reason to carry these different regulatory "types" of traffic on different trunk groups. Yet, that is what Qwest is proposing to require.

1 **Q. WOULD IT BE EFFICIENT TO BUILD TWO HIGHWAYS RIGHT NEXT**
2 **TO EACH OTHER, BOTH GOING TO THE SAME PLACE?**
3 A. No. One large highway is, obviously, more efficient than two smaller highways
4 with the same number of lanes. As noted above, car traffic on a highway behaves
5 in the much the same way as traffic on a telephone network. The same types of
6 traffic engineering calculations are used to size both. The same types of
7 congestion, blocking and capacity are common to both. Again, though, that is
8 what Qwest's language would seem to require.

9 **Q. WHAT ARE SOME OF THE REASONS WHY A SINGLE LARGE**
10 **TRUNK GROUP IS BETTER THAN MULTIPLE SMALLER TRUNK**
11 **GROUPS?**
12 A. As alluded to above, requiring multiple trunk groups along the same path between
13 two switches is unnecessary, inefficient, costly, and can harm network
14 performance. For example, one key problem is that using multiple trunk groups
15 will lower the blocking Grade of Service (GOS), unless additional trunks are
16 installed.
17 **Q. WHY WOULD THE REQUIREMENT FOR SEPARATE TRUNK**
18 **GROUPS CAUSE LEVEL 3 TO BUILD SEPARATE NETWORKS?**

A. To meet the Qwest requirement, Level 3 would need to order, build and provision multiple trunk groups from the Level 3 switch serving the state to each Qwest tandem, and over time to each end office. Essentially, Level 3 would need to build a separate network for each type of traffic that Qwest requires to be split out. Each separate network would be composed of transport facilities and switching facilities between the Level 3 switch to all Qwest tandems and eventually to virtually all Qwest end offices. Over time, this would require needless duplication of both transport and switch facilities, for both Level 3 and Qwest.

Q. WHY IS THIS INEFFICIENT?

A. From a network point of view, it is always preferable to combine as much traffic as possible on single trunk groups. Large single trunk groups are much more efficient than multiple smaller trunk groups. For example, one trunk group with four DS1s will handle much more traffic than two trunk groups, each with two DS1s. To handle the same amount of traffic, the two trunk groups would need to contain 3 DS1s each to have the same capacity. This would require a total of six DS1s to do the same job as four DS1s on one trunk group. "Breakage" of a single trunk group into multiple trunk groups always requires additional trunks to carry the same traffic load with the same blocking grade of service.

Q. EARLIER YOU MENTIONED "BLOCKING GRADE OF SERVICE." WHAT DOES THAT TERM REFER TO?

A. Blocking Grade of Service ("GOS") is the measure of call blocking on a trunk group. Blocking is generally measured at the busy hour and is given as a percent of the calls that are blocked due to insufficient trunk capacity. A standard, acceptable blocking GOS would be 2% end-to-end. This means that for every 100 calls that customers try to make that would be carried on that route, group, two calls will be blocked due to insufficient capacity. When 2% call blocking is desired end-to-end, an allocation is made to various facilities and equipment to achieve the 2%. Typically, a trunk group between two switches is allocated 1% blocking level so that 2% can be maintained end-to-end. This is due to the fact that many calls involve more than one switch and thus more than one trunk group. There are also small probabilities of blocking on digital loop carrier equipment and associated loop transport. (Within the traditional PSTN, you would know that you had encountered blocking on a trunk group when you heard a "fast busy" signal, or a recording telling you that "all circuits are busy.")

Q. WHAT IS THE IMPACT ON BLOCKING GOS WHEN A LARGE AMOUNT OF TRAFFIC MUST BE BROKEN DOWN INTO MULTIPLE TRUNK GROUPS?

A. If a large trunk group (say, 48 DS0s, or 2 DS1s) is split into multiple trunk groups with the same total size (two groups of 1 DS1 each), the overall carrying capacity of the multiple smaller trunk groups is smaller than the carrying capacity of the original one trunk group. The laws of trunk engineering dictate that the total number of trunk members in multiple trunk groups must be significantly larger in order to carry the same amount of traffic. The effect is like congestion on the highway. One four-lane highway will carry considerably more traffic than two, 2-lane highways. For example, a single trunk group with 48 members (two DS1s) can carry about 15% more traffic than two trunk groups with 24 members each.

Q. IS THERE ANOTHER TYPE OF INEFFICIENCY WITH RESPECT TO SPLITTING A LARGE TRUNK GROUP INTO MULTIPLE SMALLER TRUNK GROUPS?

A. Yes. Earlier I mentioned "breakage." This term is used to describe the problem when facilities with discrete sizes must be divided into smaller facilities. As I noted earlier, the DS1 (24 DS0s, or 24 simultaneous calls) is the smallest normal unit in which trunks between switches are ordered and provisioned. This is because the DS1 is the most common size of "port" on switching and transport equipment. This makes the practical effect of the inefficiencies of breaking a large trunk group down into two or more smaller trunk groups even worse.

For example, suppose that if a trunk group needs a total capacity of 30 DS0 trunks. Because trunks are ordered and provisioned in DS1 units, two DS1s must be used (that is, 48 DS0s). Even though the need is only for 6 DS0s above the first DS1, two complete DS1s will be established, because the switching and transport gear accepts trunk groups in DS1-sized "chunks."

Now, if this trunk group must be divided to handle two different call types on two different trunk groups, it is quite possible that the ratio between the two call types is not 50/50. If the trunk requirement is larger than a multiple of 24 (even if it is only one trunk member larger – say 25 DS0s) a new DS1 must be provisioned and the associated equipment added to terminate the new DS1. Coupled with the need for additional capacity to maintain the same blocking GOS, this leads to significant increases in the overall number of DS1s needed for a given traffic volume when the trunk groups must be split. Taking this factor and the blocking factor into account, one trunk group with 48 members cannot be replaced with two trunk groups of 24 members. To get the same blocking grade of service using two trunk groups, both trunk groups would need to have two DS1s. So the effect of splitting the large trunk group into two is actually to ***double*** the total number of DS1s needed — to carry the ***exact same amount of traffic!***

Q. WHAT COST ELEMENTS ARE ADDED TO THE NETWORK WHEN MULTIPLE SEPARATE TRUNK GROUPS MUST BE MAINTAINED?

A. In physical terms, to establish a DS1 trunk group between two switches requires, essentially, the following. First, each switch must be programmed to separately identify the traffic bound for the particular trunk group and to direct that traffic to the appropriate "port" on the switch. Second, there must actually ***be*** a trunk port (a separate physical device) available on the switch to accommodate the new DS1 trunk group. The capacity of switches to accommodate new trunk ports is limited; at some point it is necessary to add new switch modules (that contain more ports) in order to add new trunk groups, and, for any given switch, at some point the total number of ports is reached and the only way to establish a new trunk port is to add a new switch.

The same holds true for the transmission medium (in Level 3's case, typically optical fiber) used to carry a DS1 trunk group between Level 3 and Qwest. The DS1 trunk physically runs from the Level 3 switch to a device known as a digital cross-connect system (DCS) – which has its own DS1 ports and port-capacity limits – and then on to the fiber optic terminal (FOT) that actually sends and receives the laser signals used to convey information over optical fiber. The FOT also has its own DS1 ports and port-capacity limits. Adding DS1s, therefore,

sooner or later requires the purchase of additional trunk ports on switches, DCSs, and FOTs, eventually requiring that these devices be "grown" or that new switches, DCSs, and/or FOTs be purchased. Obviously, over time this will greatly increase the capital requirements of operating the network.

Finally, although obviously much of the operation of a modern telecommunications network is automatic, behind the scenes a large number of people are required to monitor, maintain and operate the system. Provisioning and maintaining additional trunk groups and the resultant facilities requires additional staff time as well.

From Level 3's perspective, when it is necessary to incur these costs due to growth in traffic volume, we of course do so. But at the same time, if it is ***not*** necessary to incur these costs in order to carry a given volume of traffic, we obviously do not want to do so. This is why the issue of using efficient trunking arrangements is so important to Level 3, and why we believe that it is entirely unreasonable to allow Qwest to require that traffic be broken down into multiple, smaller trunk groups if there is no technical reason for doing it.

1 **Q. WOULD QWEST FACE THE SAME INEFFICIENCIES FROM**
2 **MULTIPLE TRUNK GROUPS THAT YOU HAVE DESCRIBED ABOVE**
3 **FOR LEVEL 3?**
4 A. Yes. Just like Level 3, Qwest would need to dedicate DS1 ports on its FOTs,
5 DCSs, and switches to the additional DS1 trunk groups made necessary by
6 inefficient, multiple trunk groups.

7 **Q. WHY WOULD QWEST WANT TO IMPOSE SUCH INEFFICIENCIES**
8 **ON ITSELF?**
9 A. I obviously can't say for sure. That said, it is well known among
10 telecommunications engineers that traffic is migrating off the traditional landline
11 PSTN. Some normal voice traffic is just "disappearing" as end users
12 communicate via email and instant messaging, rather than making telephone calls
13 at all. Some PSTN voice traffic is migrating to wireless, as people use their cell
14 phones to make calls that would otherwise have been made over the landline
15 network. Some PSTN voice traffic (although not as much as Qwest might want
16 the Commission to believe, at least in the short run, as Mr. Gates describes) is
17 migrating to VoIP services such as those offered by Vonage or Skype. Unless
18 Qwest had perfect foresight, it is quite possible that it overestimated its own needs
19 for capacity and could well have over-invested in switch, DCS, and/or FOT

capacity. (Of course, since Level 3 is a relatively new and still-growing carrier, Level 3 is not sitting around with excess capacity on its switches, FOTs, etc. Level 3 has to spend capital dollars to meet growing demand.) In that situation, Qwest might see it as advantageous to ***require*** a competitor like Level 3 to use an inefficiently large number of trunks. If Qwest already has the excess capacity on hand — which it would, if total demand for its services was shrinking — then it could impose large capital and other costs on Level 3, with little or no new cost to itself, simply by convincing this Commission that there was some reason to require multiple, inefficient trunk groups.

Q. ARE THERE STILL OTHER POTENTIAL PROBLEMS WITH QWEST'S PROPOSAL?

A. Yes. Taking essentially the reverse of the situation described above, if Qwest does ***not*** have excess capacity, Qwest might actually not be able to add the necessary trunk ports in a timely fashion. This would put an effective limit on the rate at which Level 3 could grow and make competitive inroads in the market. At least from the perspective of the industry as a whole, this is not hypothetical. As I understand it, in a case within the last year or so, the FCC found that Verizon had violated the Communications Act by reason of having insufficient capacity to permit interconnection with a competitor (Core Communications) to grow. If a

true industry giant like Verizon did not invest in enough capacity to handle growth in interconnection requirements, it is of course possible that Qwest would be in the same position.

Q. WILL THERE BE ANY INCREASE IN MISROUTED CALLS IF "LOCAL," "TOLL," AND OTHER "TYPES" OF ARE CARRIED ON A SINGLE, LARGE TRUNK GROUP?

A. No, not at all. Briefly, to determine how to route a call, the switches looks at the first six digits of the telephone number (the "NPA-NXX"). Part of the human staff effort described above in administering trunk groups is properly programming the switch to know that, if the NPA-NXX of the called number on an outgoing call is "602-222," the call gets routed to "Trunk Group XX," but if the NPA-NXX is "602-555," the call gets routed instead to "Trunk Group YY."

Of course, in actual practice it's a bit more complicated than that. For example, if the called number has been ported from its original carrier to a competing carrier, the switch doesn't look at the NPA-NXX of the number that was actually ***dialed,*** it looks at the "NPA-NXX"-equivalent portion of the "Location Routing Number," or LRN. And, if the NPA-NXX in question is subject to "thousands-block pooling," it will be necessary to look not only at the first six digits of the

number (the NPA-NXX), but also at the seventh digit — essentially, the NPA-NXX-X — as well.

But the point is that none of this activity involved in routing a call outbound from Qwest to Level 3, or vice versa, is affected in any way by any regulatory overlay that classifies a call as "local" or "toll" or "intraLATA" or "IP-enabled" or "ISP-bound" or "interstate" or "intrastate." What matters is the dialed number or, for ported numbers the LRN. The rest of the regulatory stuff has literally no impact at all on call routing.[1] The network will have no trouble correctly routing any type of calls, no matter how many are combined on the same trunk group. While there will always be some small numbers of misrouted calls in the network, this number will not increase when these traffic types are combined on the same trunk group.

Q. DOES COMBINING DIFFERENT REGULATORY "TYPES" OF TRAFFIC (SUCH AS LOCAL AND ACCESS TRAFFIC) ON THE SAME

[1] In fact, even if there ***is*** a regulatory requirement to treat some class of traffic differently for ***routing*** purposes, such a requirement is basically impossible to implement unless the requirement can be translated into handling calls with different NPA-NXXs differently. For example, that's how interLATA calls are routed to a customer's presubscribed long distance carrier. Originating ILEC switches contain a list of NPA-NXXs that are "local" to the switch contained in their programming, along with a particular trunk port assigned for outgoing calls to each "local" NPA-NXX. If a customer dials an NPA-NXX that is not on that list, either the call will be sent to the customer's presubscribed IXC or, in areas where "1+" dialing is required for toll calls, directed to a recording saying that the call "cannot be completed as dialed" or some similar message.

1 **TRUNK GROUP RESULT IN AN INCREASE IN THE POSSIBILITY OF**
2 **FRAUD OR INTENTIONAL MISROUTING OF CALLS?**
3 A. No. Any company can intentionally misroute calls to perpetrate fraud, whether or
4 not traffic is combined on a single trunk group. Dishonest carriers can change the
5 SS7 call identification information to make access traffic appear to be local traffic
6 if they so choose. This can be done whether the traffic is put on separate trunk
7 groups or on a single trunk group. Level 3 always pays the appropriate access
8 charges for access traffic and has no intention of changing call information or
9 inappropriately routing calls to avoid access charges. But requiring separate trunk
10 groups to prevent so-called "call laundering" is no more useful or effective than it
11 would be to require banks to provide one copy of everyone's bank statement on
12 plain white paper, and then an extra copy on special yellow-and red-striped paper,
13 be to prevent "money laundering." You can establish such a requirement —
14 obviously at an increased cost — but doing so has nothing to do with preventing
15 the problem at issue.

16 **Q. PLEASE DESCRIBE THE PROCESS BY WHICH PROPER BILLS FOR**
17 **INTERCARRIER COMPENSATION ARE DEVELOPED.**
18 A. Normally billing for intercarrier compensation is accomplished in several stages.
19 First, the SS7 signaling network transmits data about an incoming call, such as the

identification of the carrier delivering the call, the calling number, the dialed number, the LRN if the dialed number has been ported, etc. The switch receiving the traffic generates a record, known as an "AMA" record in traditional PSTN circuit switches, that records this information, along with other information such as the time (to the second) that the call starts and stops, perhaps the specific trunk on which the call was received, and other switch-specific information. These "AMA" records are then processed through what is known as a "mediation" system into industry-standard "EMI" (or "electronic message interchange") records. The EMI record basically takes the AMA or equivalent data and puts it into an industry-standard format (sometimes known as a "CDR," or "call detail record"). These records are then run through a billing system that applies programmed logic to the data in the records to determine whether, how much, and who to bill.

This process normally occurs on a call-record-by-call-record basis. So, it doesn't actually matter, for LEC-to-LEC traffic exchange, whether the traffic on a given trunk is subject to different charging regimes or the same; each call is (or can be) rated individually.

Q. IS THAT THE WAY ALL CARRIERS ACTUALLY BILL FOR THIS TYPE OF TRAFFIC EXCHANGE?

A. No. First, some carriers have less capable mediation or billing systems than others, so not all carriers are capable of performing the call-by-call review. Another carrier might have a bill-and-keep arrangement with respect to much or all of the traffic exchanged with interconnected LECs, and so not need to go through the call-by-call process. Second, carriers can establish a Percent Local Use (PLU) and Percent Interstate Use (PIU) for calls on a trunk group, updating the information periodically to assure that it is correct. Basically, instead of reviewing the call-by-call data on a monthly basis for billing, all or a sample of a month's traffic is reviewed periodically to determine what percent of traffic falls into which billing category. In this regard, Level 3 has offered to track the Percent of IP Use (PIPU) to measure the percent of IP-Enabled traffic that is exchanged between the parties.[2] This information can be audited if there is any doubt as to its validity. These two methods are being used today by various CLECs and ILECs to manage the combining of different traffic types on trunk groups.

[2] See Intercarrier Compensation Sections 3.2.2.4 -3.2.2.5, Issue IC-2.See Intercarrier Compensation Sections 3.2.2.4 -3.2.2.5, Issue IC-2.

Q. HOW DOES LEVEL 3 PROPOSE TO CALCULATE THE PLU FACTOR?

A. I describe the process in detail below in Section XI of this testimony, "Determination of Traffic Types." This process is being used by Level 3 in all of the Bell South states, SBC states, and Verizon states, and similar processes are used by other CLECs with the ILECs.

Q. HAVE OTHER COMPANIES DEALT WITH THE BILLING ISSUES ASSOCIATED WITH COMBINING DIFFERENT TYPES OF TRAFFIC ON INTERCONNECTION TRUNKS?

A. Yes. Other CLECs have been using factors in many states for more than five years. Several IXCs with CLEC affiliates combine different traffic types on FGD trunks with Qwest, using PLU to handle carrier billing. These IXCs started off with an FGD network for the purpose of exchanging intrastate and interstate access traffic. As their business strategy changed and these carriers decided to enter the local market, they made use of the FGD network that was already in place to handle the exchange of all their traffic. Similarly, Level 3 started out with a "local" network established for the purpose of exchanging "local" traffic. As described above, there is no technical or "billing"-related reason that Level 3 should not be able to use those same trunks for terminating FGD and other types of traffic. In this regard, the distinction between local and toll services is fast

disappearing. Level 3's customers are demanding packaged services that include the termination of intrastate and interstate access traffic. Level 3 would like to be able to make most efficient use of the network that is already in place today. Qwest and Level 3 will be able to do so if Qwest is required to allow the exchange of all traffic over the existing "local" trunks.[3]

Q. DOES QWEST USE A PLU FOR DISTINGUISHING LOCAL AND INTRALATA TOLL TRAFFIC ON INTERCONNECTION TRUNKS?

A. Yes. That is, Qwest already permits the combination of local and intraLATA toll traffic — normally subject to different charging regimes — on a single trunk group, and uses PLU factors for determining how many minutes are subject to access charges and how many are subject to reciprocal compensation. In other words, even quest allows mixed traffic on the same trunk group today. To distinguish the traffic that is subject to reciprocal compensation from the traffic that is subject to intrastate access, it provides on a quarterly basis, a PLU factor to the terminating carrier. Likewise, it expects any carrier originating traffic that terminates to Qwest to provide a PLU factor to Qwest. It is neither technically

[3] Qwest calls these "LIS" trunks, for "Local Interconnection Service," but that is actually a misnomer. Qwest and Level 3 are co-carriers; although each is responsible for the transport and termination of traffic delivered by the other, Qwest is not providing Level 3 a "service" in the normal sense, any more than Level 3 is providing Qwest a "service." Rather, in order for each carrier to provide full "service" to its respective customers, the two carriers enter into interconnection arrangements.

challenging nor in any way unreasonable to extend that process to include a PIU or other factors to determine the distribution of traffic among whatever different regulatory traffic "types" might end up existing under our final contract.

Q. HAS LEVEL 3 AGREED TO SEND ONLY "LOCAL" TRAFFIC TO QWEST'S "LOCAL ONLY" TANDEM SWITCHES?

A. Yes. Most Qwest switches are currently carrying both local and toll traffic. These switches can easily handle trunk groups that carry both local and toll traffic. Where Qwest has a tandem switch that currently only handles local traffic, however, as an accommodation, Level 3 has agreed to send only local traffic to such switches. However, I would emphasize that Level 3 agreed to this not because it thinks this is good network engineering. To the contrary, for all the reasons discussed above, it is not sensible to separate traffic into different types and trunk groups if not required. Because the amount of affected traffic is small in this case, however, Level 3 chose not to continue to dispute with Qwest on this topic in the limited circumstance of "local only" tandems.

Q. HAS LEVEL 3 AGREED NOT TO SEND TOLL TRAFFIC THAT DOESN'T TERMINATE TO QWEST END USERS OR UNE/RESALE CUSTOMERS TO QWEST END OFFICE SWITCHES?

A. Yes. Qwest has told Level 3 that is expects difficulty with Independent Telephone Companies ("ITCs") and other CLECs that expect to receive recording data from the Qwest tandem switch when an IXC terminates traffic to such other carrier's through Qwest's network. Because Qwest has chosen to configure its so-called "LIS" trunks without the same recording capabilities as FGD trunks have, Qwest will not be able to provide such data to these carriers. This would create a situation in which these 3rd party LECs would receive traffic as to which they would legitimately be entitled to charge access rates, but as to which they would have inadequate information to actually render an access bill. To avoid this situation, for the relatively limited amount of IXC traffic that Level 3 will deliver to Qwest for further delivery to ITCs or other CLECs, Level 3 has agreed to send such traffic only to Qwest's toll tandems where adequate recordings for the 3rd parties can be made. Again, Level 3 is making this accommodation to Qwest because its impact is relatively small. The fact that we are doing so does not mean that it would be sensible to generally carve out different types of traffic for separate trunking, for all the reasons discussed above.

Q. QWEST STATES THAT LEVEL 3 MUST DESIGN ITS INTERCONNECTION TO COMPORT WITH QWEST'S EXISTING NETWORK AND NOT INTERCONNECT IN A MANNER THAT RISKS EXHAUSTING QWEST TANDEMS. ARE THESE STATEMENTS JUSTIFIED?

A. Qwest is completely wrong to suggest that Level 3 is or should be required to design any part of its network to mirror, match, duplicate, or conform to Qwest's network design. Put aside the fact, as discussed above, that Level 3 is a new carrier without any need (yet) for a ubiquitous network such as Qwest's; and put aside the fact that Level 3's customer base differs from that of Qwest, which would lead to a different network design. The fact is that network technology has changed so much since Qwest started deploying its network in Arizona that if ***Qwest*** were building a new network today, to serve its own existing customer base, ***Qwest itself*** would not re-generate the same network that it actually has today. It makes no engineering or technical sense to suggest that there is anything sacrosanct, or even particularly efficient or optimal, about Qwest's existing network. There is not.

Now, that said, Qwest does have a legitimate technical concern that neither Level 3 nor any other interconnected carrier should deliver such large amounts of traffic to Qwest's tandem that the capacity of the tandem itself would be overloaded. It is standard practice in the circuit-switched telephone industry to establish direct trunks between switches when the level of traffic between them exceeds a certain level. Given this, Level 3 is perfectly willing to work with Qwest to avoid the problem of tandem overload by jointly engineering separate trunk groups that go directly between Level 3 and those Qwest end offices with enough traffic to justify the direct trunking. These are known in the industry as "Direct End Office Trunks," or DEOTs.

Q. DOESN'T ESTABLISHING DEOTS LEAD TO THE CREATION OF MULTIPLE TRUNK GROUPS, WHICH YOU HAVE TESTIFIED ABOVE ARE INEFFICIENT?

A. To a certain extent, yes. However, all network engineering involves making tradeoffs. There is, to coin a phrase, no such thing as a free lunch. While looking at trunking alone, it is more efficient for both Qwest and Level 3 to connect their networks with a single, massive trunk group from Level 3 to Qwest's tandem, that requires that all traffic between the parties be switched by Qwest twice, once at

the end office, and once at the tandem. In addition, it requires Qwest to make use of three trunk ports for all traffic between the networks: one at the "Level 3" side of Qwest's tandem, to accept incoming traffic and send outbound traffic to Level 3; another at the "Qwest Network" side of Qwest's tandem, to connect the tandem to trunks bound for particular end offices; and then a third trunk port at the end office itself, to connect that end office to the tandem. With DEOTs, even though the total number of trunks will be higher than would be the case in a single massive trunk group, Qwest is able to avoid the use of tandem switching and to cut down on the total number of trunk ports it has to use. Level 3 is certainly willing to work with Qwest to permit Qwest to obtain those network efficiencies.

Q. GIVEN THESE TECHNICAL CONCERNS WITH ESTABLISHING MULTIPLE TRUNK GROUPS ALONG THE LINES QWEST IS SUGGESTING, HOW DO THE KEY TECHNOLOGY POLICIES YOU IDENTIFIED EARLIER IN YOUR TESTIMONY RELATE TO THE QUESTION OF ESTABLISHING MULTIPLE TRUNK GROUPS TO THE SAME QWEST SWITCH OR SWITCHES?

A. From a high-level policy perspective, on this issue, Qwest is trying to drag Level 3 back into the past. Level 3 proposes to deliver traffic to each Qwest switch on a single, efficient, combined trunk group. Qwest, however, is not concerned about

technical efficiency. Instead, because it thinks that different kinds of traffic fall into different regulatory buckets, it wants those types of traffic sent on separate trunk groups. This is anticompetitive, because, as described above, it will impose needless costs on Level 3. It is also contrary to the development and encouragement of new services, in that it forces Level 3 to classify traffic in accordance with the old, existing service classifications with which Qwest seems most comfortable. And, particularly in the case of VoIP traffic (addressed below), the inefficiencies imposed by Qwest's suggested requirement of separate trunking for different "types" of traffic will act to directly suppress the development of this exciting Internet-based innovative service.

Q. IN ORDER TO BE PERFECTLY CLEAR, HOW DOES THE ISSUE OF ESTABLISHING SEPARATE TRUNK GROUPS FOR DIFFERENT TYPES OF TRAFFIC RELATE TO THE QUESTION OF ESTABLISHING NEW, PHYSICAL POINTS OF INTERCONECTION — THAT IS, NEW TRANSMISSION FACILITIES — BETWEEN LEVEL 3 AND QWEST?

A. As noted above, physical transmission facilities and trunk groups are two different things. One way to look at it is to consider a physical highway running between two cities. Looking just at the one city-to-city route, the transmission "facility" is the physical slab of concrete and asphalt that the cars and trunks will drive on.

Setting up a trunk group is analogous to drawing lane lines on the concrete, indicating that some lanes are for traffic going northbound, some for traffic going southbound, some for trucks only, some for passenger cars only, etc.

As between two communications networks, a single, high-capacity fiber optic facility between the two networks can easily contain dozens of different trunk groups. One trunk group might be traffic directed to the ILEC tandem. Another trunk group might be traffic directed to a specific ILEC end office switch. Still another trunk group might carry traffic bound for the ILEC's operator service network. But whatever might lead the carriers to establish different trunk groups (such as traffic bound for different switches), that is a totally separate question from any need to establish different physical facilities linking the carriers' networks. The idea behind setting up a physical "meet point" between two networks is that each carrier is responsible for all the switching, transmission and related facilities on its side of the meet point. The two carriers then cooperate with each other to establish whatever trunk groups need to be established, ***carried over that meet point interconnection facility.***

Given this, it is important to recognize that the establishment of separate direct end office ***trunks*** does not at all mean that it makes sense to establish any separate

1 ***facilities*** linking Level 3 with Qwest end offices. To the contrary, the ***facilities*** to
2 carry the trunks from the Qwest tandem location (where Level 3 will normally
3 physically interconnect in a LATA) to the affected end office already exist; they
4 are the same facilities (normally optical fiber) that carry the traffic from the
5 tandem to the end office before the DEOT is established. The new DEOT trunk
6 group will ride the same fiber optic interconnection facility between Qwest and
7 Level 3 that all other traffic rides, at the parties' single POI in the LATA.

8 All that said, it makes no sense at all to suggest, as Qwest does, that putting local,
9 toll, or other types of traffic on a single combined trunk group will risk exhausting
10 Qwest tandems in any way. What avoids exhausting Qwest's tandem is
11 establishing DEOTs to carry ***all*** the traffic from Level 3 to a Qwest end office on
12 an efficient basis. Level 3 is willing to do this. Simply provisioning several
13 inefficient trunk groups of separate "types" of traffic to Qwest's tandem will not
14 only not help with tandem exhaust, it will cause the tandem to exhaust its trunk
15 port capacity more rapidly than keeping the different types of traffic together in
16 the same trunk group. Again, the solution to tandem exhaust is DEOTs — which
17 separate traffic out based on ***destination switch*** — not separate trunk groups for
18 different "types" of traffic.

Q. HOW DO THE KEY TECHNOLOGY POLICIES YOU IDENTIFIED EARLIER IN YOUR TESTIMONY RELATE TO THE PROSPECT OF LEVEL 3 BEING REQUIRED TO ESTABLISH ADDITIONAL PHYSICAL POIs — THAT IS, ADDITIONAL PHYSICAL TRANSMISSION FACILITIES BETWEEN LEVEL 3 AND QWEST?

A. Each of the three pro-technology policies identified above supports allowing Level 3 to interconnect by means of a single POI until and unless Level 3 itself believes additional POIs are needed. For this issue, the primary policy is the promotion and encouragement of competition. Although Level 3, as noted above, has invested billions of dollars in its advanced, fiber-optic, IP-based network, that does not mean that it can or should be called upon to mirror or duplicate the local network architecture of the ILECs with which it interconnects and competes. To the contrary, it would be extraordinary to conclude that a competitor like Level 3 would have any rational interest in duplicating the incumbent's network architecture.

The essence of Level 3's local business plan is to identify customers with high levels of Internet-based communications, either incoming, outgoing, or both, and provide highly efficient links for such customers both "upstream" to the Internet itself and "downstream" to the PSTN. Level 3 has no independent business

reason — and certainly no engineering reason — to try to re-create Qwest's local network architecture. Instead, what Level 3 primarily needs from Qwest in order to serve its customers is efficient, seamless interconnection between Level 3's network and Qwest's network. It seems plain that efficient interconnection of this type will be degraded if Level 3 is subject to regulatory obligations to establish multiple physical interconnections with Qwest, above and beyond those that are necessary to Level 3's business and that Level 3 will put into place itself.

As I note elsewhere in my testimony, Level 3 is not averse to establishing multiple physical points of interconnection in a LATA when traffic levels and other factors so warrant; but ***requiring*** Level 3 to interconnect at multiple points on Qwest's network really boils down to punishing Level 3 — in the form of needless mandated capital expenditures — for not having the same network, the same customer base, and the same business plan as Qwest. This is contrary not only to the policy of encouraging competition, but also to the policy of encouraging the deployment of new, innovative services and network architectures.

Clearly, as a policy matter, Qwest is simply wrong in insisting that Level 3 should have to establish more than one physical POI within a LATA.

Q. WHAT IS LEVEL 3 ASKING THIS COMMISSION TO DECIDE ON THIS ISSUE?

A. Level 3 is asking this Commission to rule that Qwest must allow Level 3 to use single interconnection trunk groups between the carrier's switches instead of multiple trunk groups, using PLU, PIU and PIPU for carrier compensation and billing purposes. This will preserve network efficiency, maintain reasonable call blocking standards, and minimize the trunking and switching equipment both parties need for interconnection. The language that Level 3 is proposing for this issue is fair and balanced and will allow the efficient use of trunks by both companies.

IV. ISSUE 5: ESP Traffic - VoIP Traffic

Statement of the Issue: Whether QWEST may prohibit Level 3 from utilizing local interconnection facilities to terminate Internet-enabled traffic, specifically for VoIP traffic.[4]

Q. WHAT IS INTERNET-ENABLED TRAFFIC?

A. Internet-Enabled traffic is meant to be a broader term for Enhanced Service Provider (ESP) traffic. Internet-Enabled traffic includes VoIP and other forms of

[4] The following paragraphs in the agreement are covered by the testimony in this issue: Interconnection Trunking Requirements Appendix, Section 13.1, Intercarrier Compensation, Sections 3.1, 4.5, 4.7-4.7.2.1, 7.1, 7.2, 16.1. DPL Issues ITR 19; IC 1, 4, 8, 9, 14.

1 enhanced communications capabilities made possible by the Internet and IP
2 technology.

3 **Q. WHAT IS THE INTERNET?**

4 A. The Internet is an open-ended, network of networks that allows virtually anyone
5 with a computer and a high speed or low speed link to connect to anyone or any
6 business in the world. Historians debate about when the Internet really began. It
7 had its roots in the 1970s and 1980s with research, government and business
8 networks. The "Internet" as such was opened to the public for commercial
9 purposes around 1995. The Internet has grown quickly in less than a decade to
10 include hundreds of millions of computers worldwide and has become a major
11 factor in the global economy.

12 **Q. HOW DOES THE INTERNET DIFFER FROM THE PSTN?**

13 A. The PSTN is a closed network, controlled by large telephone companies,
14 including ILECs, ICOs, IXCs, CLECs and CMRS operators. Access to the PSTN
15 is through a variety of equipment such as dial-up phones, PBXs and more lately
16 cordless phones and cellular phones. All terminal devices on the PSTN must be
17 connected through a switch controlled by one of the phone companies. In fact, to
18 be "on" the PSTN basically means that you have a telephone number assigned by

one of the entities noted above. That telephone number is, in effect, a "network address" on the PSTN.

In contrast to the PSTN, the Internet is comprised of (among other things) hundreds of thousands of routers and switches owned by tens of thousands of different companies. Routers and switches with new networks attached are added to the Internet every day. Anyone who abides by the standards and protocols used on the Internet can set up a new network and connect themselves or their customers to the Internet without any detailed application process or regulatory scrutiny.

Q. WHAT IS VOICE OVER INTERNET PROTOCOL, OR VoIP?

A. One of the basic protocols of the Internet is called "IP," which means (sensibly enough) "Internet Protocol." Another basic protocol is called "TCP," or "Transaction Control Protocol." There are many, many protocols that work with these basic protocols to define how the Internet performs various functions. These include SMTP (Simple Mail Transfer Protocol, used for email); FTP (File Transfer Protocol, used to allow the retrieval of files from remote locations); HTTP (Hyper-Text Transfer Protocol, used for transmitting web pages and establishing web links); and many others. All of these different protocols rely on

the basic TCP/IP protocols to permit different applications (email, file transfer, world-wide web, etc.) to function on the Internet.

Voice over Internet Protocol, or VoIP, refers to various specific protocols that use the basic TCP/IP system to treat voice communications like any other Internet application. With VoIP, telephony signals, including voice signals, are digitized and transmitted as packets to their destination, just as with an email, streaming video, or any other kind of IP transaction. While the PSTN, as noted above, was designed with a laser-sharp focus on one thing — delivering voice calls — the Internet focuses equally sharply on something very different — delivering data packets, no matter what those data packets might represent. This means that while the PSTN treats data as some unusual thing that requires special treatment, the Internet treats all data the same — even if the data in question happens to represent a voice call. As a result, the Internet essentially destroys the old distinctions between "voice" and "data" that are a standard part of PSTN thinking.

Indeed, because the information associated with any particular application is broken down into packets of bits and does not re-assume its original form (i.e. sound, text or pictures) until it is reassembled at the terminating end, it is virtually impossible to assign the transmission of packets to any particular service

classification at any point other than origin or destination. An IP network provider, for example, can be carrying real-time two-way voice packets without actually offering voice service to any end-user customer.

When a VoIP call starts with a computer or with some device on a broadband data network (such as a DSL line or a cable modem service), and then is delivered to the PSTN, the protocol, or format, of the transmission has clearly and fundamentally changed. Specifically, a net protocol conversion is required to convert the packetized IP data into the Time Division Multiplexed (TDM) signal that is used on the PSTN. Today, VoIP applications come in many forms. Some resemble traditional phone service, from the point of view of the end user, more than others. But the application as a whole clearly entails changing the form (and perhaps even the content) of the signals at issue. As I understand the relevant regulatory classifications, this means that VoIP is properly viewed as an "information service" rather than a "telecommunications service."

Q. IS VoIP, AS FACILITATED BY LEVEL 3, A TELECOMMUNICATIONS SERVICE?

A. No. Level 3 performs many functions for its various customers. For example, Level 3 is a CLEC that performs telecommunications functions for its customers

— transmission of traffic between points specified by the customer; assigning telephone numbers and switching calls to and from them, etc. But the service that Level 3 provides to VoIP entities is a translation or protocol conversion service that allows communications between end users of the PSTN and the Internet. This service enables customers to have oral communications over the Internet that may seem to be the similar to ordinary telephone calls, but in fact are very different. Access to Level 3-provided VoIP is through high-speed data lines, not phone lines with phone numbers; and the terminal equipment is not a telephone, but a computer or computer phone. In this regard, the PSTN itself is not compatible or interoperable with the Internet. Frequently, communications from end users ***to*** the Internet are carried by means of PSTN services — this happens every time a customer dials up a connection to his or her ISP. But the only way that the PSTN can be actually ***connected*** to the Internet in any meaningful sense is by means of a protocol conversion of the signal from Time Division Multiplexing (TDM) on the PSTN to Internet Protocol (IP) for the Internet. Level 3 does a net (or complete) protocol conversion from TDM to IP to enable VoIP users to communicate with the end users of PSTN services.

1 **Q. WHAT IS NET PROTOCOL CONVERSION?**

2 A. Net protocol conversion occurs when the media stream that uses one protocol,
3 native to one particular type of network, is converted into a different media stream
4 using a different protocol on a different type of network. In the case of VoIP, a
5 voice call originating on the PSTN using TDM must be converted to IP by
6 packetizing the data, generating the Internet protocol and sending out the result on
7 the packet network.

8 **Q. IS NET PROTOCOL CONVERSION NECESSARY ON VoIP CALLS**
9 **BETWEEN LEVEL 3 AND QWEST?**

10 A. Absolutely. All VoIP calls that begin with a Level 3 customer and terminate to a
11 Qwest customer require a net protocol conversion. Likewise, calls that begin with
12 a Qwest customer and terminate to a Level 3 customer also require a net protocol
13 conversion. The reason for this is simple. Level 3 has no PSTN-like, TDM-
14 using, circuit switches on its network. Any and all media streams generated by
15 Level 3 will originate in an IP format and must be converted to TDM for
16 terminating on the PSTN. The reverse is also true. A call originating from a
17 Qwest end user (on the Qwest network) must be converted to IP in order for Level
18 3 to move the signal through its network. In this regard, Level 3 has had to
19 backwards-engineer its network to be able to facilitate the conversion from TDM

based services offered on the PSTN to IP based services offered Level 3's (and others') next generation networks. Finally, Level 3 receives and terminates services to its ESP customers in an IP format – the media originated in TDM on the PSTN is ***not*** converted back to TDM by Level 3 before hand-off to its ESP customers. Thus, a net protocol conversion occurs – media streams go from IP to TDM or vice versa depending on whether Level 3 originates or terminates the call.

Q. DOES NORMAL CELLULAR TELEPHONY REQUIRE A PROTOCOL CONVERSION?

A. No. The cell phone uses modulation and compression techniques in the over the air channel (from the cell phone's antenna to the cell site's antenna), but there is no protocol conversion at the cell site. The signal is demodulated and decoded as any radio signal would be. The cell phone and cell site are merely using an efficient means of radio communication. The cell site operates in the TDM domain and is part of the Public Switched Telephone Network. This is quite distinct from the protocol conversion that occurs between the IP domain and the TDM domain.

Q. WHAT TYPE OF CUSTOMER PREMISES EQUIPMENT IS NEEDED FOR VoIP?

A. VoIP requires specialized Customer Premises Equipment (CPE). Standard Touch Tone or dial pulse phones will not work on a VoIP network, unless they themselves are connected to a computer or similar device that ***can*** handle VoIP format. Special phones, called "SIP" phones ("SIP" stands for "Session Initiation Protocol," and is another Internet-related protocol like FTP, SMTP, and HTTP) can be used for VoIP. These phones have small computers built into them that packetize the voice data and generate SIP messages. Computers with headsets and microphones can also be used for VoIP.

Q. CAN A VoIP CUSTOMER MOVE HIS OR HER SIP PHONE OR COMPUTER PHONE TO DIFFERENT LOCATIONS, WHILE STILL MAINTAINING THE SAME PHONE NUMBER?

A. Yes. A SIP phone or computer phone can be plugged into any broadband connection to receive VoIP service. The end user could send and receive calls from any location with this type of broadband connection. This gives VoIP users a degree of mobility that is not available to users of PSTN service. This type of mobility is coming to be known in the industry as a "nomadic" service, in order to

distinguish it from more traditional "mobile" service of the kind provided by normal wireless phones.

Q. IS THERE CURRENTLY ANY WAY TO DETERMINE WHERE A VOIP USER IS LOCATED WHEN THEY MAKE A CALL?

A. No. At present, the geographic location of a VoIP user is indeterminate. They can take a computer from one location to another and make VoIP calls in either location. Since the "telephone number" is resident in the computer terminal or SIP phone, the calling number is the same whether the device is located in Minnesota or Arizona. Of course, as one might imagine, an indeterminate location makes it challenging for VoIP services to function properly in connection with location-based E911 services. The VoIP industry is working on this issue, and the FCC recently required VoIP services that use normal telephone numbers and that meet certain other criteria to find a way to supply "normal" 911 capabilities to their users.

Q. CELLULAR TELEPHONES CAN BE USED IN ANY LOCATION. DO CELLULAR PROVIDERS AND ILECS HAVE THE SAME PROBLEM WITH GEOGRAPHIC LOCATION AS VoIP SERVICE?

1 A. No. The location of a cell phone user is always known within a pretty small
2 geographic area. The cell phone registers with all cell sites that are nearby and
3 service is provided by a particular cell site that has a definite location. So if a cell
4 phone user travels from a home location in Minnesota to a location in Arizona,
5 the cell phone system will automatically "know" that they are in Arizona and not
6 Minnesota when they make a call. This is fundamentally different from the VoIP
7 situation, where the geography of a call is not known by the ESP that provides the
8 service or carrier that completes the call. Indeed, the broadband service provider
9 to which a VoIP user connects his or her SIP phone in most cases probably has no
10 idea that the packets going back and forth to that particular node on the network
11 represent voice communications as opposed to email, web site traffic, or any other
12 Internet activity.

13 **Q. PLEASE DESCRIBE THE LEVEL 3 FIBER AND IP NETWORKS.**

14 A. Level 3 has a large all fiber-optic backbone network that connects 68 markets in
15 the U.S. and 17 markets in Europe, with over 16,000 route miles of fiber in the
16 US intercity network and 3600 route miles in Europe. Exhibit RRD #1 shows the
17 current configuration of the Level 3 fiber network that is installed and operational
18 in the US. Riding on this Fiber Backbone, Level 3 maintains a large IP network
19 that it manages as a separate network, composed of high-speed links and core

1 routers. Exhibit RRD #2 shows the current configuration of Level 3's IP network.
2 The Level 3 IP backbone is run as a private network and is connected to the
3 public Internet via hundreds of peering arrangements at Level 3 Gateways,
4 located in 29 metropolitan areas.[5] Level 3 central office facilities are state-of-the-
5 art facilities in the heart of 70 major metropolitan areas. As noted earlier, these
6 facilities range in size from 50,000 to 550,000 square feet of equipped floor space.
7 This is where both local and intercity fiber networks terminate, where high-speed
8 transmission equipment is situated, and where routers and Softswitch equipment
9 is located.

10 **Q. IS LEVEL 3 A FACILITIES BASED CARRIER IN ARIZONA?**

11 A. Yes. Level 3 has fiber facilities in Arizona as well as Points of Interconnection
12 (POIs) with Qwest. Exhibit RRD #3 shows the fiber route, fiber regeneration
13 facilities, POIs and serving areas in Arizona.

---

[5] Peering arrangements, as used here, refer to locations at which Level 3 exchanges traffic with other providers of Internet connectivity. Suppose an end user connected to an ISP that uses Level 3 for its Internet connectivity seeks to download information from a web site that is hosted by an ISP that uses some other entity (say, UUNet) for its Internet connectivity. For the information to get from the UUNet network to the Level 3 network, there must be connections between them. That is what the peering arrangements are.

Q. HOW HAS THE LEVEL 3 NETWORK BEEN OPTIMIZED FOR IP?

A. The Level 3 network was designed as a high-speed packet network for carrying IP traffic. It is composed of IP routers instead of PSTN type switches, and all of its facility links are IP-based.

Q. WHAT IS THE BASIC DIFFERENCE BETWEEN THE PSTN AND LEVEL 3'S IP BASED NETWORK?

A. As noted above, the PSTN was designed to carry voice traffic. The PSTN is made up of circuit switches and facilities linking them that carry circuit-based phone traffic. The Level 3 IP network is a data network, not a voice network. It is made up of IP routers and IP data links between the routers.

Q. WHAT TYPES OF CUSTOMERS DOES LEVEL 3 SERVE AND WHAT TYPES OF SERVICES DO THEY USE?

A. Level 3 serves ESPs and ISPs, a subset of ESPs. ISPs require local connectivity to the PSTN and transport and termination services from Level 3, including modem banks and collocation space. ESPs and ISPs use the Level 3 network to pass all types of data, including email, web download services, computer-to-computer data transfer, VoIP and other streaming media. Level 3 also serves

cable companies, DSL providers some large enterprise companies and other carriers with transport and termination of VoIP and TDM traffic.

Q. DO LEVEL 3 CUSTOMERS NEED LEVEL 3 TO PROVIDE THEM WITH THE ABILITY TO RECEIVE TRAFFIC FROM THE PSTN AND TO ORIGINATE TRAFFIC BOUND FOR THE PSTN?

A. Yes. Traditional ISPs need to receive dial-up modem access from the PSTN. Though high-speed service from cable and DSL is becoming increasingly popular, there are still a great number of customers who utilize dial-up modems to access the Internet from the PSTN, in part because the costs of high-speed access to the edge of the network are still too expensive for many customers. Many Qwest customers today call Level 3's ISP customers for dial up Internet service. Level 3's VoIP customers today need Level 3 to complete calls to Qwest end users and to receive calls from Qwest end users bound for Level 3's customers' end users.

Q. CAN YOU GIVE A GENERAL DESCRIPTION OF WHAT HAPPENS WITH A VoIP CALL?

A. Exhibit RRD #9 shows a high level depiction of a VoIP connection. In this example an end user sitting at a VoIP terminal requests a connection to a Qwest

customer. The VoIP terminal uses a broadband connection to access a VoIP Feature Server ('FS"). The VoIP terminal and the FS negotiate features and functionality, giving the user a wide variety of options. The VoIP terminal initiates signaling protocol that is passed through the FS, through the Level 3 IP network, and on to the Level 3 Softswitch and SS7 Gateway. The Level 3 SS7 Gateway turns the SIP messages into SS7 messages and thru the SS7 Signaling Transfer Points ("STP") passes them on to the Qwest network, where appropriate trunking is negotiated. When this call set up has been completed, the VoIP phone begins passing packetized voice data to the Level 3 IP network. The Level 3 IP network sends the packets on to the Level 3 Media Gateway ("MG"), which completes a net protocol conversion on the packetized voice to turn it into Time Division Multiplex (TDM) signals that are recognized by the Qwest trunks and switches. The Qwest switch sends the call on to the Qwest end user. In this example voice type data is passed between the end users.

Q. DOES THE QWEST NETWORK NEED TO TERMINATE VoIP CALLS IN A MANNER THAT IS DIFFERENT FROM THE TERMINATION OF NORMAL PSTN BASED LOCAL TELEPHONE CALLS?

A. Qwest terminates VoIP calls to its end users in the same manner they would use to terminate regular PSTN based local calls to their end users. There are no extra

processes, no additional transport, and no additional switching. This is possible because Level 3 itself has already done the work of converting the IP-format data stream into a TDM-format circuit-switched voice call that Qwest's network is capable of recognizing and handling.

Q. HOW DO THE KEY ISSUES OF TECHNOLOGY POLICY THAT YOU DISCUSSED EARLIER IN YOUR TESTIMONY RELATE TO THE ISSUE OF VoIP CALLS?

A. At a high level, VoIP is an innovative Internet application that turns the voice-centric world of the PSTN on its head by treating voice communication as just another data-oriented application on the worldwide Internet. From a long-run industry perspective, it represents the triumph of data networks over voice networks. While the PSTN can provide only a limited, low-bandwidth form of data communications (basically, dial-up access to the Internet at 56 kilobits per second), the Internet can do everything the PSTN can do, and more. In my view, it is only a matter of time before the entities that comprise and operate the PSTN convert to IP-based communications, as indeed, Qwest and other PSTN entities are already beginning to do.

One of the features of the Internet is that distance and location are largely irrelevant. As the FCC has noted, the contents of a single web page can come from a variety of different servers in a variety of different locations. Most of us familiar with modern business travel have learned that our email can reach us anywhere, either downloaded to a computer in a hotel room by means of now-ubiquitous broadband connections offered by business hotels, or to wireless devices such as a Blackberry.

VoIP is an Internet application first and a voice application second. By this I mean that VoIP partakes in the distance-insensitive, location-insensitive characteristics of Internet applications. No matter what telephone number might be assigned to a VoIP customer (if any number is assigned at all), the customer might be participating in a call from next door or from around the world.

It is obviously challenging from a regulatory perspective to figure out what to do with VoIP traffic. The FCC has a number of ongoing proceedings trying to sort it out. But one thing is clear: whatever VoIP is, it is not traditional "telephone toll service," where the end user makes a call from some fixed location, completes it to some distant location, and is charged a separate toll charge for the privilege. In both economic and technical terms, VoIP calling is *sui generis.*

In these circumstances, the choice between assessing traditional access charges or lower and more economical reciprocal compensation rates on this traffic should actually be very clear. This is a new and innovative service that we should all want to encourage. That means that we should impose the lowest reasonable charges on it, when it needs to interface with the PSTN. That means that as a policy matter this traffic should be subject to reciprocal compensation rates, not access charges.

Basically, all three of the policies I articulated at the beginning of my testimony point to this same conclusion. Permitting VoIP traffic to be terminated at reciprocal compensation rates will encourage competition. VoIP is exactly the kind of new and innovative service that we should be trying to encourage, so it should not be subject to high access charges when lower reciprocal compensation rates provide adequate compensation to Qwest. And, VoIP is the latest innovative service to arise from the Internet, which should be encouraged for independent policy reasons. As a policy matter, therefore, VoIP traffic should be subject to reciprocal compensation, not access charges.

XI. Determination of Traffic Types

Q. WHAT ISSUES MUST BE RESOLVED FOR THE PROPER DETERMINATION OF TRAFFIC TYPES?

A. First, in order to efficiently combine traffic on single interconnection trunk groups, a Percent Local Use must be calculated to determine traffic types for billing. Second, Qwest is proposing a new, technically infeasible method of determining whether traffic is local or toll.

Q. HOW DOES LEVEL 3 PROPOSE TO CALCULATE THE PLU, PIU AND PIPU FACTORS?

A. Level 3 maintains local calling area tables as does Qwest. Over a given period of time, Level 3 can collect all call data on calls exchanged between the parties. Once this data is collected Level 3 will, per industry standard, calculate and report the Percent Interstate Usage (PIU). The remaining traffic is a combination of local and Intrastate traffic. Level 3 will then once again compare the remaining call data with call tables and from this calculation determine the PLU as the percent of local traffic compared to the percent of intrastate traffic. So, by first determining the percentage of interstate traffic from the total traffic and then determining the local traffic from the remaining traffic, you end up with the traffic that is intrastate toll and the traffic that is local. For IP-Enabled traffic, Level 3

will create a Percent IP Use (PIPU) for both originating and terminating traffic. This will allow Qwest and Level 3 to properly compensate each other for IP traffic. Alternatively, Level 3 has proposed to attach an Originating Line Identifier (OLI) code to the call record to identify calls that originate as IP-Enabled traffic.

Q. WHAT IS LEVEL 3'S PROPOSAL FOR THE USE OF THE OLI FIELD IN THE IDENTIFICATION OF IP-ENABLED TRAFFIC?

A. The OLI field is part of the SS7 protocol. It is currently used to identify calls from payphones, from prisons and for other purposes. Level 3 would like to use the OLI field to identify IP-Enabled traffic. It is reasonable to assume that IP-Enabled traffic may be handled differently for purposes of compensation over time; thus, the companies need a way to identify IP-Enabled calls. Level 3 can identify IP-Enabled calls and can set a unique identifier in the OLI field for each IP-Enabled call. This would help Qwest to identify the traffic if they so choose. Level 3 is offering to mark the OLI field for each IP-Enabled call so that Qwest can track IP-Enabled traffic.

Q. IS THERE A DISPUTE OVER THE USE OF THE OLI FIELD FOR THE IDENTIFICATION OF IP TRAFFIC?

1 A. There is currently no guideline or standard that calls for the use of the OLI field in
2 SS7 messages for the identification of IP traffic, though this is one of the
3 mechanisms that is being reviewed nationally. Qwest is reluctant to commit to
4 the use of the OLI field, and a particular identifier, before national guidelines are
5 set. Level 3 believes the OLI field is an excellent way to identify IP traffic.

6 **Q. IS THERE PRECEDENT IN THE INDUSTRY FOR USING OPTIONAL**
7 **SS7 FIELDS OR UNUSED IDENTIFIERS BEFORE NATIONAL**
8 **GUIDELINES ARE SET?**

9 A. Yes, there is precedent in the industry for carriers to agree on the use of optional
10 or unused SS7 fields and codes and billing format fields and codes for legitimate
11 business uses. SBC, for example, does this in many areas of billing, where they
12 have customized billing formats for their own purposes and now ask carriers who
13 exchange bills with them to use the customized formats with the optional fields.
14 For example, my understanding is that SBC wants CLECs to use what are known
15 as "Category 92/99" records. The use of Category 92/99 records is entirely
16 unique to SBC's Southwest region.

1 **Q. IF LEVEL 3 PROVIDES QWEST WITH PIPU FACTORS FOR THE**
2 **COMPENSATION OF IP TRAFFIC, IS THERE ANY NEED FOR THE**
3 **IDENTIFICATION OF IP TRAFFIC WITH THE OLI FIELD?**
4 A. Not really. The use of PIPU will allow the companies to correctly compensate
5 each other for IP traffic without the use of the OLI field. The OLI field identifier
6 for IP traffic is only needed if the companies want to track every IP call. The
7 PIPU factor makes such identification unnecessary.

8 **Q. CAN LEVEL 3 ACCURATELY CALCULATE THE PLU, PIU AND PIPU?**
9 A. Yes. The calculation of PLU, PIU and PIPU is accurate and can be used for
10 billing purposes on traffic that is originated by Level 3. Qwest can perform the
11 same calculations on the calls that it originates. Level 3 can create PIPU for both
12 originating and terminating traffic, as is discussed below in our proposed contract
13 language.

14 **Q. DOES BELLSOUTH HAVE A PROCEDURE FOR ADMINISTERING**
15 **PLU WITH LEVEL 3 AND OTHER CLECS?**
16 A. Yes. BellSouth has agreed to allow Level 3 to combine different traffic types on
17 interconnection trunks, and they have established a procedure for administering

the PIU and PLU. I am including the Bell South procedure for PLU below for comparison:

PLU – Percent Local Usage
This factor is the percentage of intrastate terminating usage that is categorized as Local Jurisdiction. For purposes of this guide the total intrastate usage includes intrastate local usage and intrastate non-local usage. The local jurisdiction is applicable to Competitive Local Exchange Carriers (CLECs) that are terminating local traffic from their network to the BellSouth network. CLECs that totally utilize resale or unbundled network elements to provision local services are not required to report PLU factors. Interexchange Carriers that do not terminate local traffic as a CLEC are not required to report PLU factors. The local jurisdiction is normally defined per Local Interconnection contractual agreements and is calculated as follows where MOUs are billed minutes of use: *Total Local MOUs [divided by] Total Intrastate MOUs.* The total intrastate minutes can be determined by multiplying the total minutes by (1- PIU). Therefore the PLU may also be calculated as follows:

Total Local MOUs [divided by] (Total MOUs) x (1-TPIU)
This factor is calculated on a statewide basis by Access Carrier Name Abbreviation (ACNA).

Q. DOES LEVEL 3 HAVE CONTRACT LANGUAGE THAT IT IS PROPOSING FOR THE CALCULATION OF PLU, PIU AND PIPU AND FOR THE TRANSMISSION AND ASSURANCE OF ACCURACY OF THESE MEASURES?

A. Yes, Level 3 is proposing contract language for definition and calculation of PLU, PIU and PIPU as well as language for the transfer and verification of these traffic factors on a monthly basis. That language is contained in Level 3's proposals for Section 7 of the Interconnection Agreement.

1 **Q. DO THESE CONTRACT PROVISIONS ADEQUATELY CODIFY THE**
2 **ACCURATE COLLECTION OF DATA, CALCULATION OF FACTORS,**
3 **EXCHANGE OF FACTORS AND VERIFICATION BY THE PARTIES**
4 **THAT IS NECESSARY FOR PROPER BILLING OF CALLS?**
5 A. Yes. I am not an attorney, but I can read and use the English language. Based on
6 a review of the attached contract provisions, it seems clear that they spell out the
7 responsibilities of Level 3 in generating accurate factors and Qwest's right to
8 verify and audit the results. By using these procedures, the companies can bill
9 each other for access charges and reciprocal compensation for all types of traffic
10 flowing over the interconnection trunks.
11 Q. **HOW DO THE TRAFFIC CALCULATIONS WORK WHEN**
12 **INTERCONNECTION TRUNKS CARRY LOCAL, INTRALATA,**
13 **INTERLATA AND IP TRAFFIC?**
14 A. The calculation of factors is spelled out in the language contained in Traffic data
15 is collected for one month. When the traffic is evaluated to calculate the factors,
16 first the IP-Enabled traffic is taken out and its percentage calculated. The Level 3
17 network can determine whether an originating or terminating call is IP-Enabled or
18 not by looking at how the calls is originated or terminated (end points can be
19 certified as IP or TDM). When the call is IP originated the SIP signaling will

reflect that, and one of the SS7 call set up message parameters (OLI) is set to a particular value (65) to flag the call as enhanced to Qwest. From this process PIPU is tabulated. Next, interstate traffic is separated from intrastate traffic by calculating the PIU factor. This is done by examining call records against a database that can tell whether the calling number and the called number are in the same state. Phone numbers are traditionally associated with a geographic area (rate center). Rating of TDM based services is done based on the geographic assignment of the phone numbers. If the terminating phone number is associated with a rate center that is outside of the state that the originating phone number is associated with, then the call is rated as interstate and the call counts towards the calculation of PIU. Finally, the PLU factor is calculated on the remaining traffic by using a state specific database that looks at whether the calling number and the called number are associated with rate centers in the same applicable local calling area. This is a simplified description of the process that is used to put traffic in the correct buckets for proper compensation. The creation of PLU and PIU factors is a process that is done throughout the industry. Level 3 is leading the industry in the ability to create the PIPU factor.

Q. IS THERE A BASIC DISPUTE BETWEEN QWEST AND LEVEL 3 ON HOW TO DETERMINE WHETHER TRAFFIC IS "LOCAL"?

1 A. Yes. As I understand it there is a fundamental disagreement between the parties
2 with respect to what traffic is properly characterized as "local" and what is not. I
3 recognize that there are legal and policy aspects to this disagreement. However, I
4 will relate the technical aspects of this dispute.

5 That said, the dispute is basically this: Level 3 contends that since the only thing
6 the PSTN "knows" about a call is the originating and terminating telephone
7 number, the status of traffic as "local" should be determined based on the
8 geographic area associated with the telephone numbers of the calling and called
9 parties. Qwest, by contrast, seeks to change that traditional arrangement and to
10 attempt to assess the status of a call as "local" or not based on the actual physical
11 location of the calling and called parties.

12 **Q. WHAT IS QWEST'S POSITION ON HOW TO CHARACTERIZE**
13 **TRAFFIC AS "LOCAL" OR NOT?**

14 A. As noted, Qwest maintains that the definition of a local call should be changed to
15 reflect the geographic location of both the calling and called party premises as
16 opposed to the originating and terminating phone numbers that have traditionally
17 been used.

1 **Q. DOES LEVEL 3 AGREE WITH THIS NEW METHOD?**

2 A. No. There are a number of technical problems with the method that Qwest is
3 promoting.

4 **Q. HAS THE CUSTOMER PREMISES LOCATION BEEN THE**
5 **DETERMINING FACTOR IN THE DEFINITION OF A LOCAL CALL IN**
6 **THE PAST?**

7 A. No. As I described above in connection with routing calls, the PSTN uses the
8 calling party's number and the called party's number to determine if a call is a
9 local call.

10 **Q. DO LOCAL SWITCHES KNOW THE LOCATION OF THE PARTIES**
11 **WHEN A CALL IS MADE?**

12 A. No. Circuit switches have no way of knowing the geographic location of the
13 calling or called party end user. The switch is programmed with a list of which
14 numbers are "native" to its area and treats calls to and from such numbers
15 accordingly (i.e., it routes them on trunks to other switches to which it is
16 connected, based on the NPA-NXX dialed). Calls that it recognizes as "toll" are
17 routed to the caller's presubscribed IXC. Older circuit switches have a limited
18 geographic range within which it can serve end users and maintain its quality

standards. Before Local Number Portability ("LNP") and number block pooling, a process by which 10,000 number NPA-NXXs blocks are divided across multiple carriers and switches in increments of 1000 number blocks (NPA-NXX-X) to make more efficient use of numbering resources, each phone number assigned from a given circuit switch fairly reasonable correlated to the geographic location of the end user. This is simply because the phone number can only be assigned to end users within that limited geographic range from the circuit switch. With the introduction of newer technology switches, soft-switches and now VoIP those distance limitations are fading, phone numbers can be assigned to end users anywhere within the country or world, and switches have no way of knowing the geographic location of the end user.

Q. HOW ARE CALLS ROUTED IN THE PSTN?

A. Local calls are routed between switches according to the routing tables in each switch. Depending on the number dialed (putting aside number portability), a switch either handles a call entirely on its own (such as a call between next-door neighbors); or it sends the call off to some other switch by routing it outbound on a particular trunk port. Toll calls — that is, calls carried by IXCs — are routed according to the Local Exchange Routing Guide (LERG). The LERG is a database that identifies switches and numbers associated with those switches,

1 based on the NPA NXX codes of the North American Numbering Plan (NANP),
2 as well as specific physical locations at which traffic bound for particular switches
3 may be delivered. Thus, for example, in the normal course within the PSTN, the
4 LERG would indicate that a call to a number within the "602" NPA should be
5 delivered to a particular carrier, at a particular location in Arizona. Which carrier
6 and which location will depend on the "NXX" of the dialed number. Switches
7 within a local calling area know which numbers are associated with the local
8 calling area and which numbers are not.

9 **Q. SO CALLS BETWEEN TWO LOCAL NUMBERS ARE TREATED AS**
10 **LOCAL CALLS?**

11 A. Yes. As noted above, each end office switch has a table of NPA-NXXs that the
12 particular switch views as "local." For all such NPA-NXXs, the switch has to
13 make only one decision: "Is this call 'mine' or do I need to send it to some other
14 switch?" If the dialed number "belongs" to the originating switch, as noted
15 above, the call stays there. But if the dialed number "belongs" to some other
16 switch, the only thing the originating switch needs to know is which trunk port to
17 send the call out on.

Note that, from this network perspective, the only truly "local" calls are calls that begin and end in the same physical switching device. Long ago, however, retail local calling plans grew to include customers served by many different switches. As a result, what constitutes a "local" call for a retail customer is not really a technical matter at all. It is simply a retail, marketing decision by the originating carrier. From a technical perspective it is essentially an arbitrary decision which NPA-NXXs to include on the programmed list of "local" calls and which to exclude (which means, usually, that the customer has to dial a "1" before the NPA-NXX-XXXX in order to complete the call).

Q. FROM A TECHNICAL NETWORK PERSPECTIVE, IS THERE ANY LIMITATION ON THE DISTANCE THAT A "LOCAL" CALL CAN TRAVEL, THE SIZE OF A "LOCAL" CALLING AREA, OR THE NUMBER OF CUSTOMERS IN A "LOCAL" CALLING AREA?

A. None at all. And, in fact, the size and scope of "local calling areas" varies greatly from place to place around the country. Some states have large local calling areas; others have small local calling areas. Again, from this perspective, the technical network personnel have no basis to care one way or another. The carrier's marketing and/or regulatory personnel just have to tell the engineers which NPA-NXXs to include on the "local" list for any given switch. The

originating switch does not "care" (in the sense of doing anything at all technically different) where it is actually sending a "local" call to a number served by some other switch; and the terminating switch does "care" (in the same sense) where a "local" call is coming from. These are retail marketing questions, not technical questions.

Q. HOW WOULD SWITCHES IMPLEMENT THE QWEST IDEA OF USING THE GEOGRAPHIC LOCATION AS THE DETERMINATION FOR A LOCAL CALL?

A. I have no idea. A switch has no way of storing information regarding the premises location associated with a phone number assigned to that switch, and no way of receiving or storing information about the premises location assigned to a phone number calling someone served by that switch. The SS7 protocol that sends information between switches for call set-up and billing purposes does not have any parameters to identify the premises locations of calling or called parties. I have asked engineers that have worked in switch design for 25 years and no one has ever heard of a feature that would store the geographic location associated with a phone number in the switch or in any peripheral that is accessible by a switch. If Qwest were to design such a feature in a peripheral device, it would no

1 doubt be expensive to implement since each call would need to reference a
2 database, and the database itself would need to be created and maintained.

3 As I pointed out above, moreover, the status of any given call as "local" or not is
4 an arbitrary marketing-oriented retail choice, not anything that affects or is driven
5 by any relevant network technology. So, from my network engineering
6 perspective, it seems to me that Qwest, by pressing its premises-location-based
7 notion of what constitutes a "local" call, is just trying to impose its own retail
8 marketing choices onto Level 3. There is certainly no technical basis for Qwest's
9 position that I can see.

10 **Q. EVEN IF THE SWITCHES, OR AN OUTBOARD DATABASE, COULD**
11 **UTILIZE CUSTOMER LOCATION INFORMATION, HOW WOULD**
12 **THIS INFORMATION BE UPDATED AND KEPT CURRENT?**

13 A. Today, local routing tables must be updated in the switches when a new NXX
14 code is activated in a rate center. This updating is a labor-intensive process, but
15 fortunately is only needed when new codes are required. The thought of
16 managing and updating a database that would hold each customer's geographic
17 location is daunting. Instead of dozens of changes per year there would be
18 hundreds of thousands in a large LATA. Each time a customer moved in or out of

1 a house or apartment the database would need to be changed, and each carrier
2 would have changes for each of their customers who moved.

3 **Q. WHAT IS FOREIGN EXCHANGE (FX) SERVICE?**

4 A. FX is a service that has been offered by phone companies for many years. The
5 service allows an end user to be assigned a phone number from a switch that
6 serves a different local calling area than the one in which they are located. This
7 allows customers in the calling area from which the FX number is assigned to call
8 the FX customer without incurring toll charges. On the other hand, if the FX
9 customer's next-door neighbor called, it ***would*** be a toll call. In traditional FX
10 service, the customer pays the providing carrier for an arrangement (a special
11 trunk or other facility) that connects them to the switch covering the distant area,
12 a.k.a. "foreign exchange". The customer is assigned a phone number out of a
13 switch in the distant area so that end users in that foreign local calling area can
14 call them by dialing a local phone number. FX numbers have been popular in the
15 past with airlines and other companies who desired a method for people to call
16 them using a local number without having to maintain call centers everywhere.

17 **Q. HOW ARE FX CALLS ROUTED?**

1 A. FX calls are routed between the local switches as normal local calls, or as toll
2 calls, depending on whether the NPA-NXX of the FX number being called is
3 included in the calling switch's table of "locally dialable" NPA-NXXs. Neither
4 the originating nor terminating switch has any way to know where the end user
5 with the FX line is actually located, nor does it matter for proper switching and
6 delivery of the traffic. The switch that hosts the FX customer has a circuit coming
7 in that it associates with phone service, providing dial tone and other local
8 services. The switch has no way to know whether the customer loop is 500 yards,
9 2 miles, or 200 miles long.

10 **Q. HOW ARE FX CALLS BILLED?**

11 A. When a customer of one phone company places a call to a customer of another
12 phone company and the originating and terminating phone numbers are assigned
13 to rate centers which are rated as "local" to each other by the originating carrier,
14 the call is rated as a local call and there is no toll charge. It does not matter if the
15 calling or called party is 500 yards, 2 miles, or 200 miles from the end office out
16 of which the number is assigned. The FX line is paid for separately by the FX
17 customer to the FX providing carrier. No toll charges are applied to calls to the
18 FX number from numbers assigned within the same local calling area as the FX
19 number. Interestingly, When the FX customer with a phone number assigned to a

foreign exchange receives a call from some who is physically within the same exchange — like a next door neighbor — toll charges are applied. Intercarrier compensation is based on the originating and terminating phone numbers.

Q. IS QWEST'S INTERCONNECTION TRUNKING THE SAME NO MATTER WHERE THE LEVEL 3 END USER CUSTOMER IS LOCATED?

A. Yes. Qwest's trunking is always to the POI, no matter where the Level 3 end-user customer is located. It doesn't matter if the Level 3 customer is 500 yards, 2 miles, or 200 miles from the POI. Level 3 carries the traffic to its end-user customer, no matter where they are located. Qwest's interconnection trunking to the POI is the same no matter where the Level 3 customer that they are calling is actually located.

Q. SO THE DISTANCE QWEST TRANSPORTS TRAFFIC IS THE SAME WHETHER THE LEVEL 3 CUSTOMER IS 500 YARDS, 2 MILES, OR 200 MILES FROM THE POI?

A. Yes. Qwest transports calls that it originates to the POI, regardless of where the Level 3 customer is located. The location of the Level 3 customer or end user is immaterial to Qwest's call transport or for Qwest's costs for that matter. Mr.

Gates will discuss in his testimony how Qwest's costs are the same no matter where the Level 3 end user is located.

XII. Conclusions

Q. HAVE YOU REVIEWED THE CONTRACT LANGUAGE PROPOSED BY LEVEL 3 AND QWEST IN THIS CASE?

A. Yes, I have.

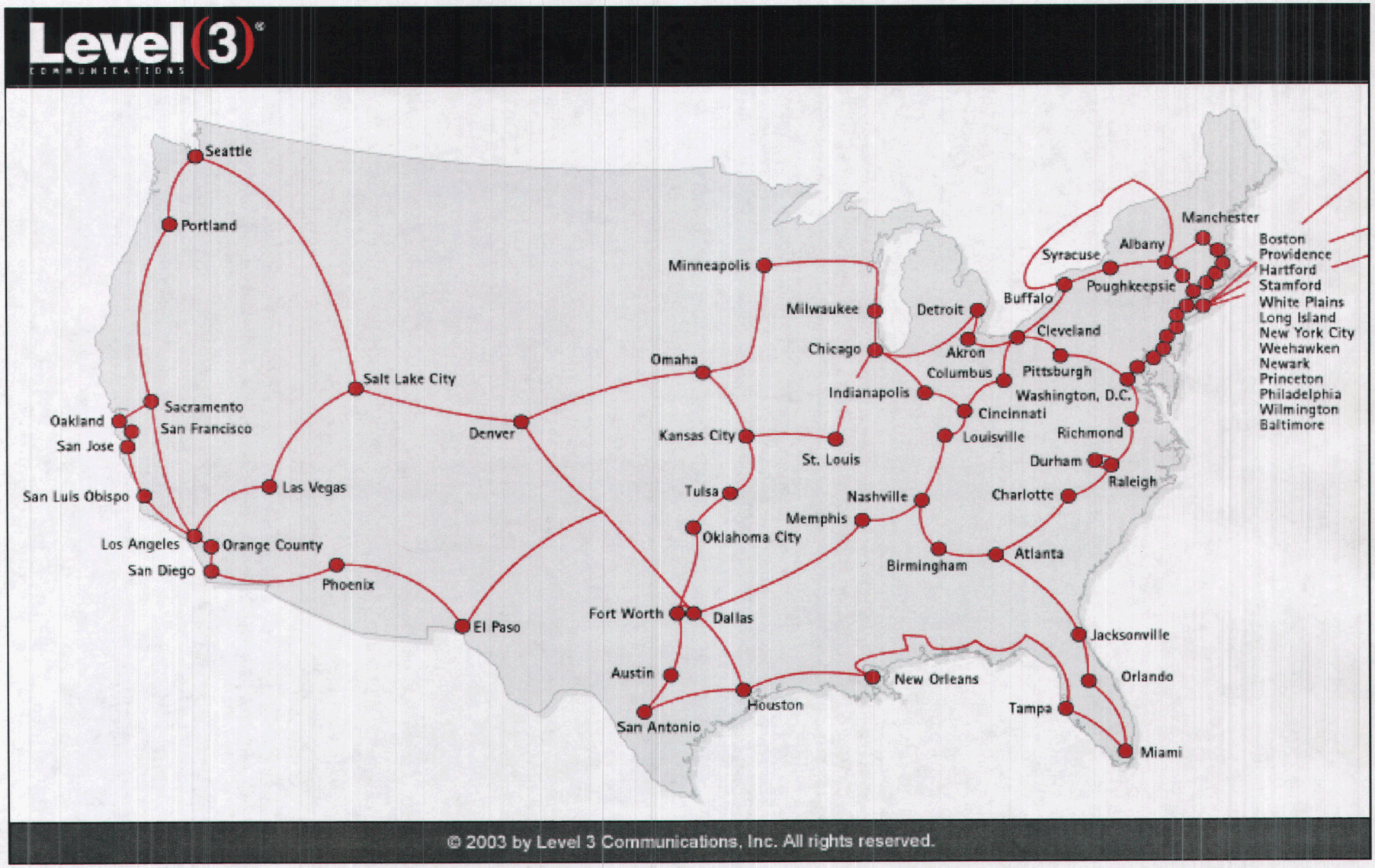
Q. FOR THE ISSUES YOU HAVE ADDRESSED, WHICH LANGUAGE IS MORE CONSISTENT WITH THE POINTS YOU HAVE MADE IN THIS TESTIMONY?

A. Level 3's language is reasonable and balanced from a technical and engineering standpoint and is consistent with the FCC's orders from an engineering point of view. Adoption of Qwest's language, by contrast, would require the parties to degrade the efficiency of their networks, imposing substantial costs on Level 3 and possibly on Qwest as well, while at the same time potentially permitted Qwest to bill Level 3 for costs and charges for functions that Qwest itself should perform without a charge to Level 3.

1 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

2 A. Yes

Exhibit RRD #1: Level 3 Fiber Network



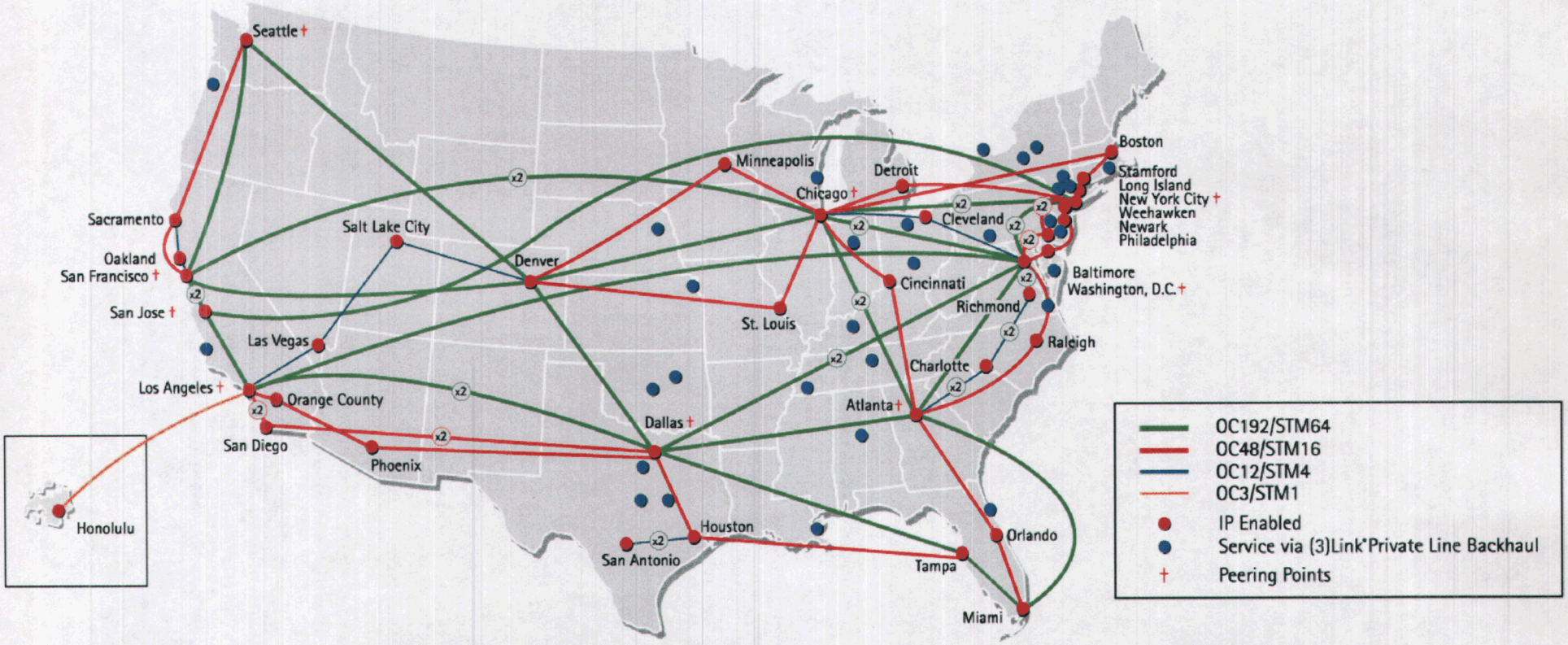
© 2003 by Level 3 Communications, Inc. All rights reserved.

Level 3 COMMUNICATIONS

The Level 3 Fiber Network

MAKE THE SWITCH

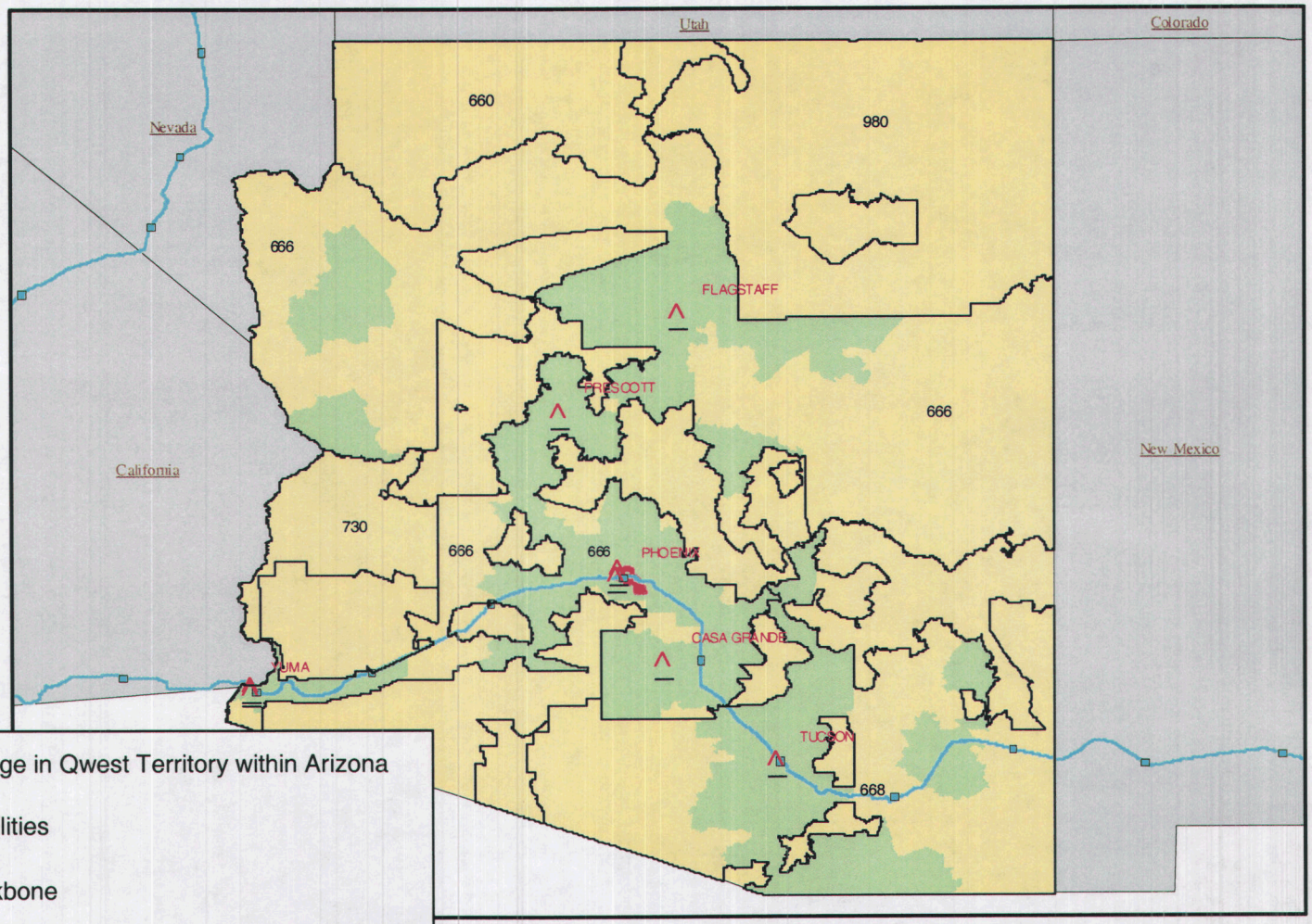
Exhibit RRD #2: Level 3 IP Network



Level(3)® COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD #3: Level 3 Facilities in Arizona



Level 3 Code Coverage in Qwest Territory within Arizona
Region

Level 3 Physical Facilities
Point

Level 3 Intercity Backbone
Line

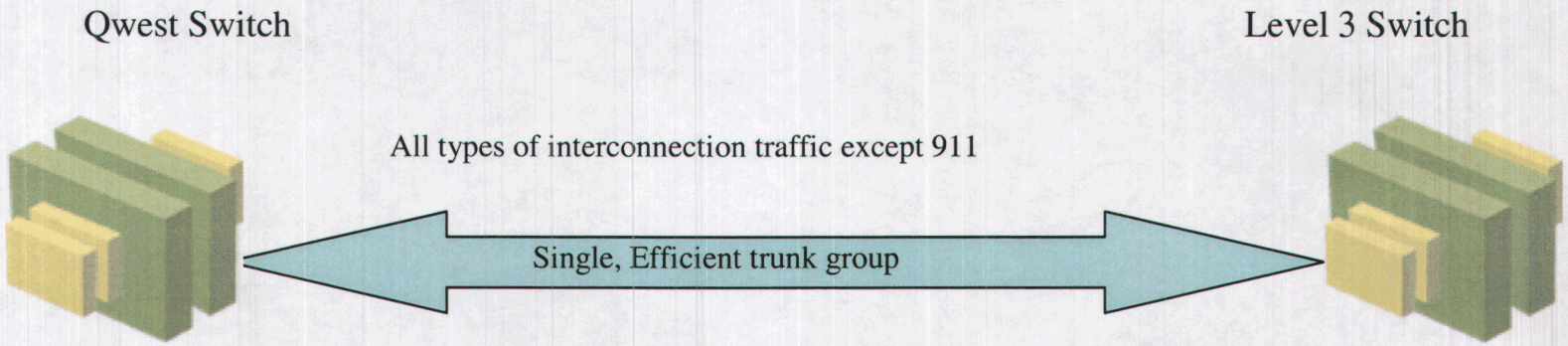
Level 3 Metro Loops
Line

Level 3 POIs in Arizona
Point

Level (3)SM COMMUNICATIONS

deliver the difference (3)SM

Exhibit RRD #4: COMBINING TRAFFIC ON A SINGLE TRUNK GROUP

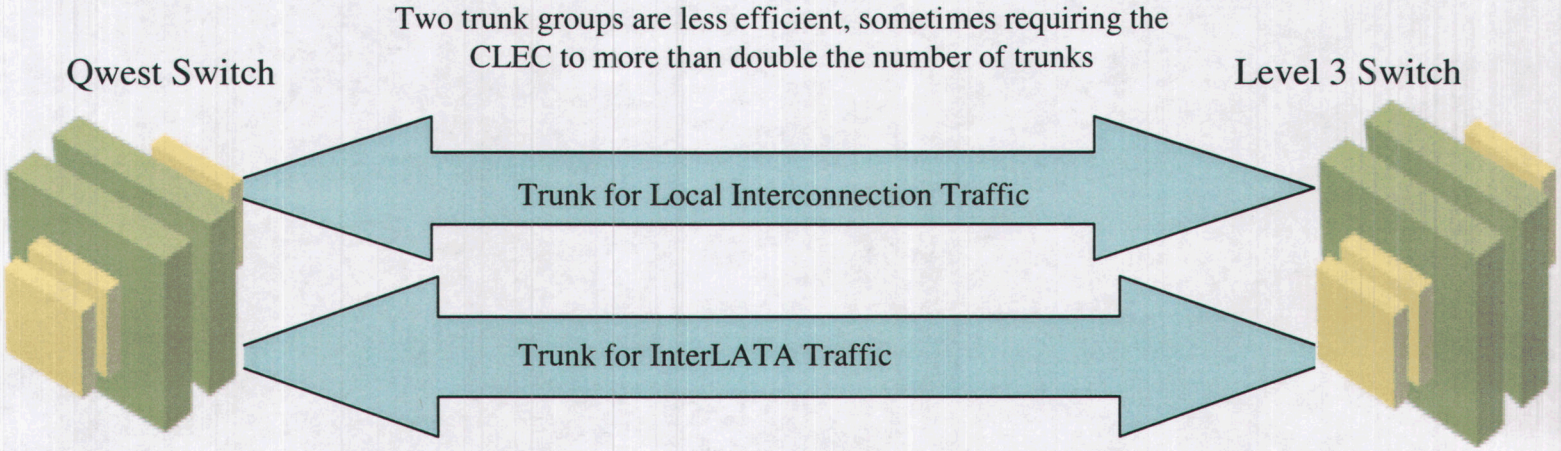


A single trunk group with combined traffic is much more efficient, requiring fewer facilities, fewer trunk ports and less equipment

Level(3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD #5: QWEST DEMANDS SEPARATE TRUNK GROUPS

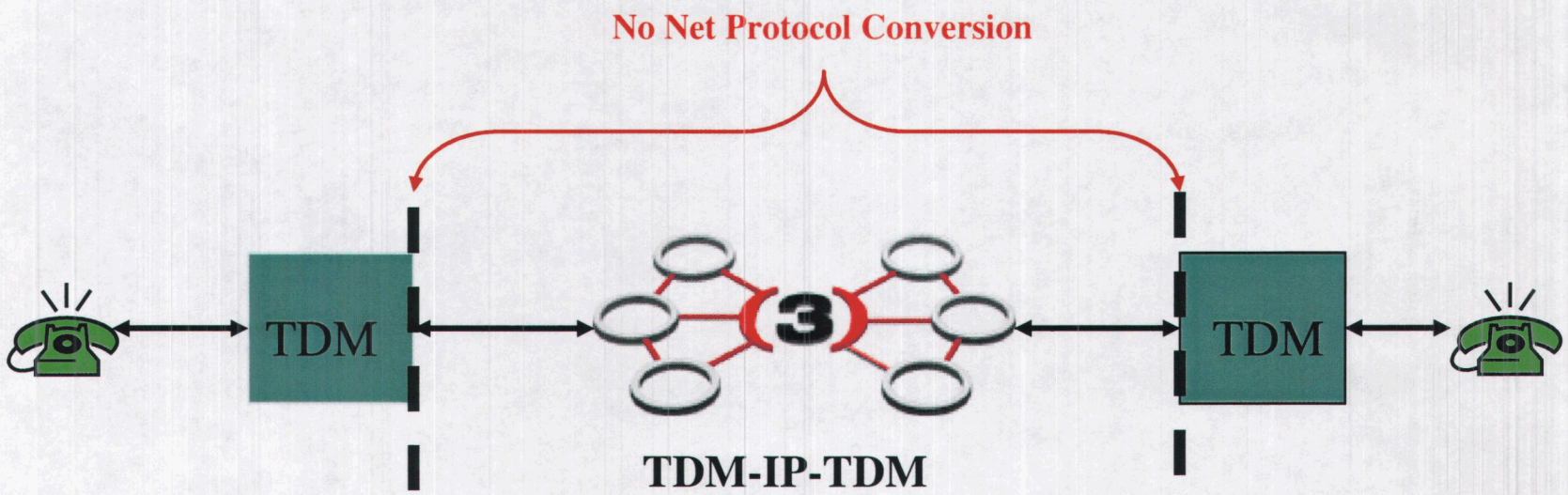


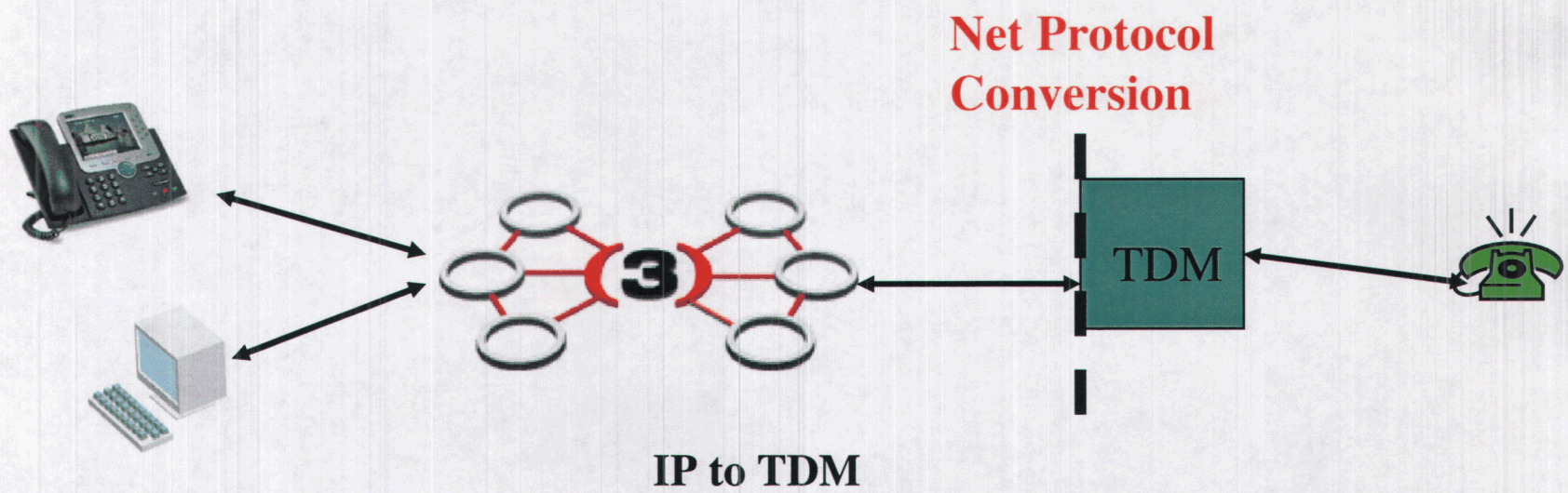
Two trunk groups do the work of one efficient trunk group. Qwest's demand would force Level 3 to build two separate networks. This requires additional trunk terminations for Qwest as well. Qwest may actually be demanding additional trunk groups for Transit Traffic and IP Traffic.

Level (3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD #6: VoIP Network Configurations

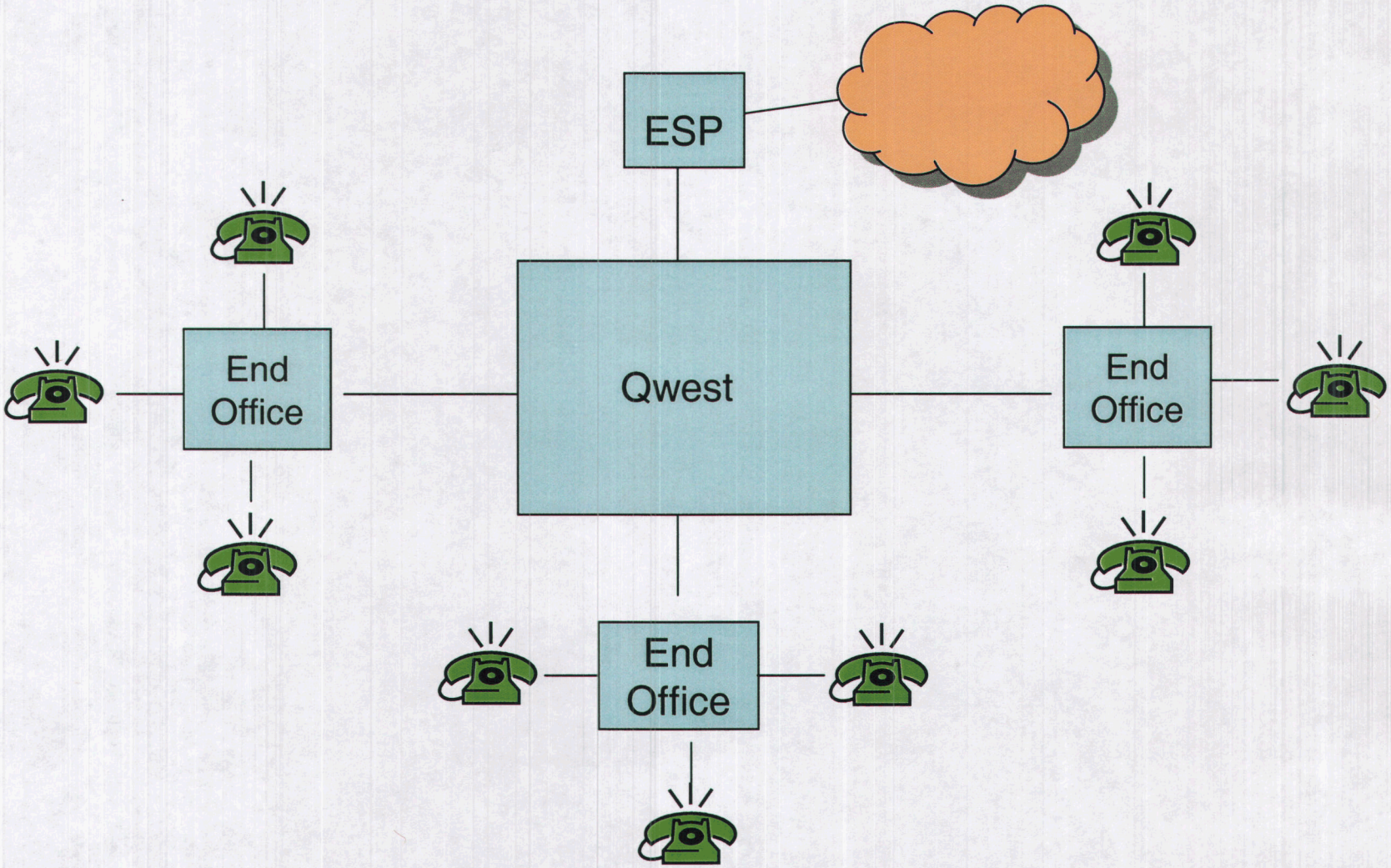




Level (3) COMMUNICATIONS

MAKE THE SWITCH

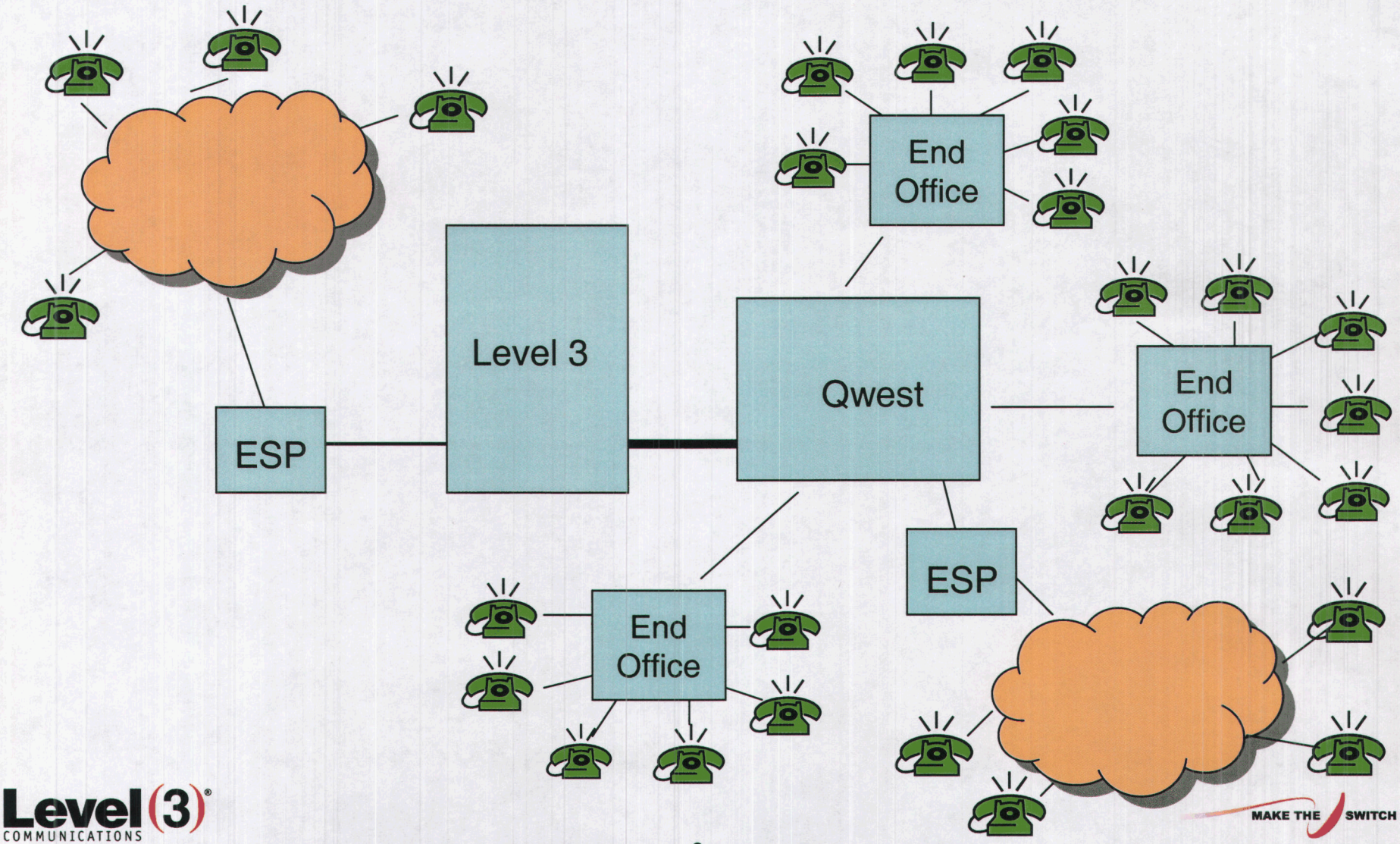
Exhibit RRD #7: ESP Exemption—Pre 1996



Level (3) COMMUNICATIONS

MAKE THE SWITCH

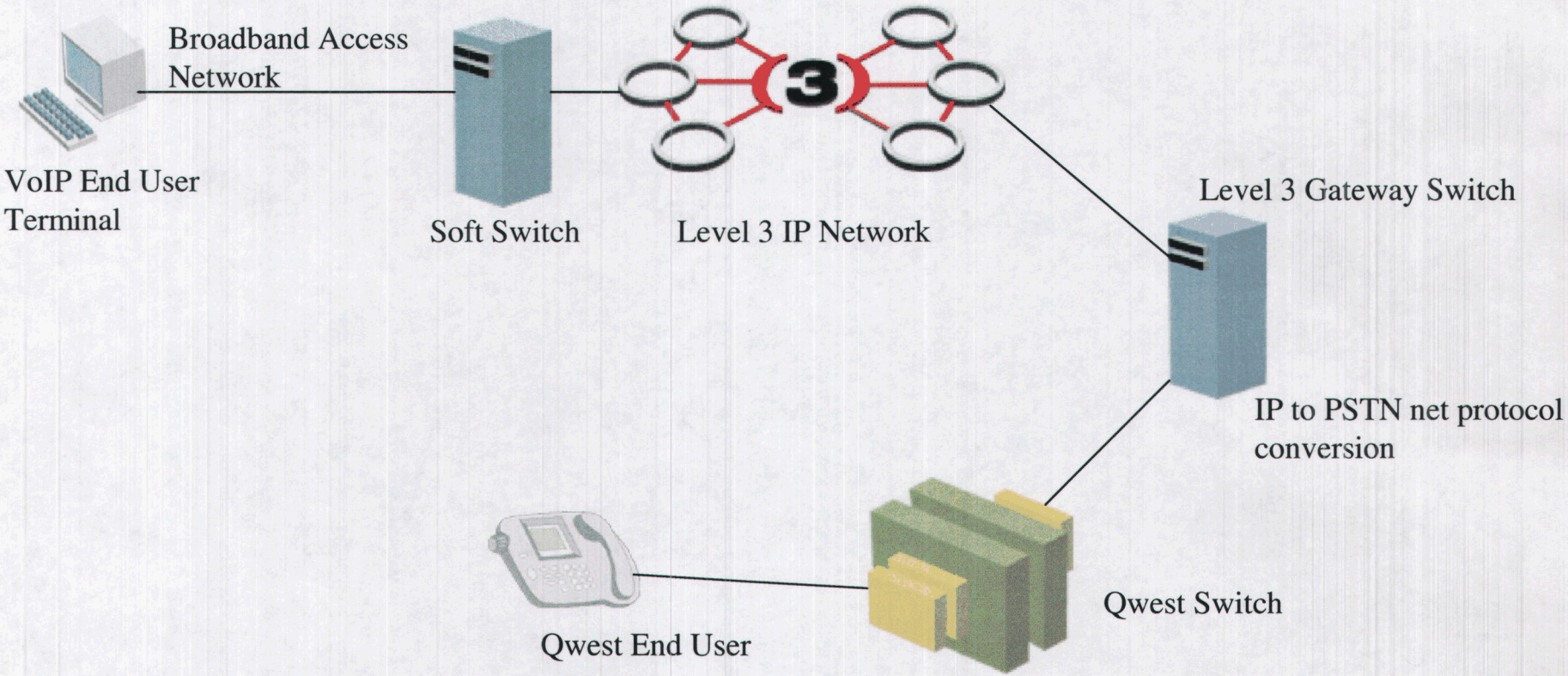
Exhibit RRD #8: ESP Exemption–post 1996



Level (3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD #9: VoIP CALL FLOW



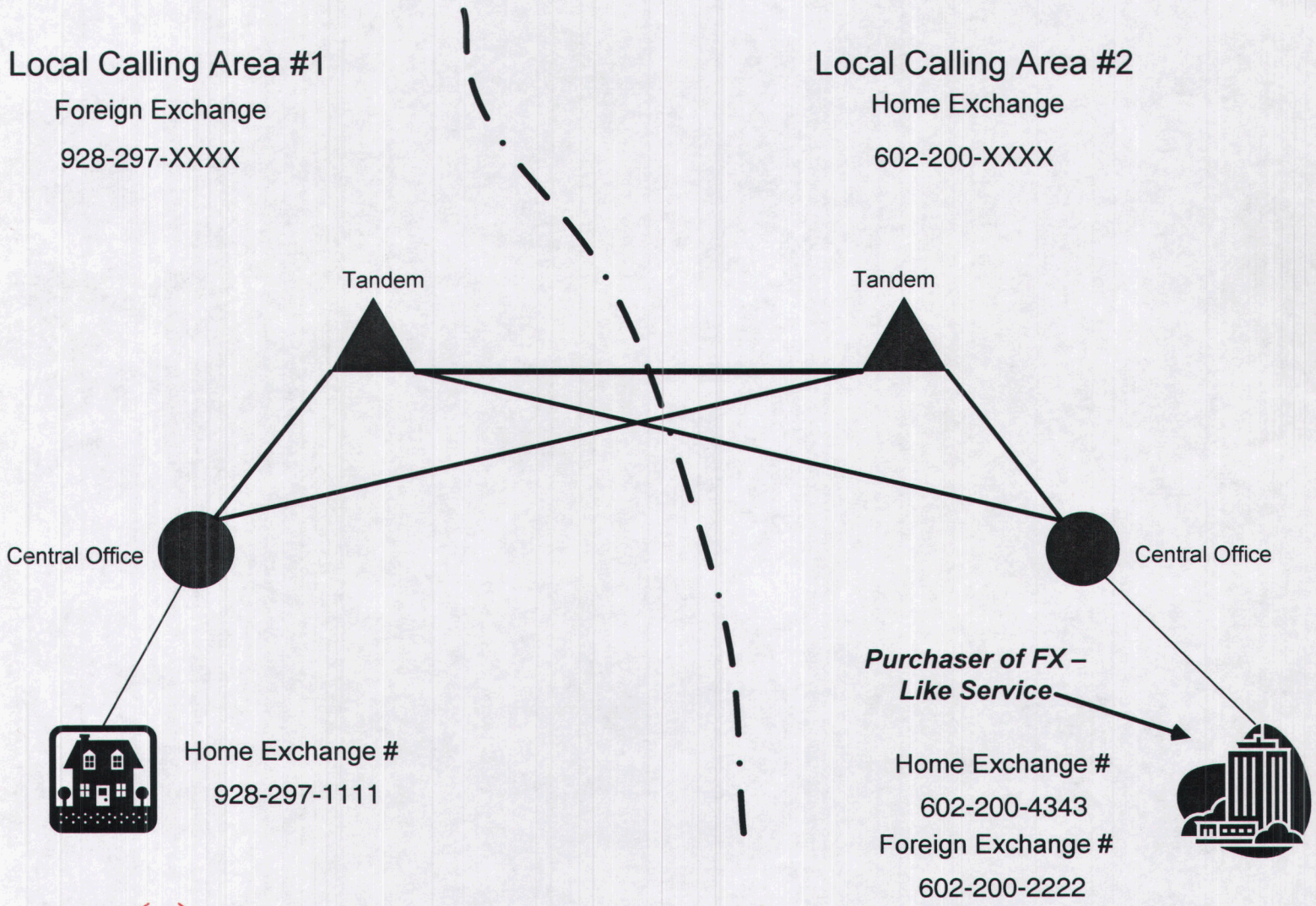
VoIP terminals allow new features and functions and a host of data and network applications

Level 3 COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD #10: Traditional FX Service (a)

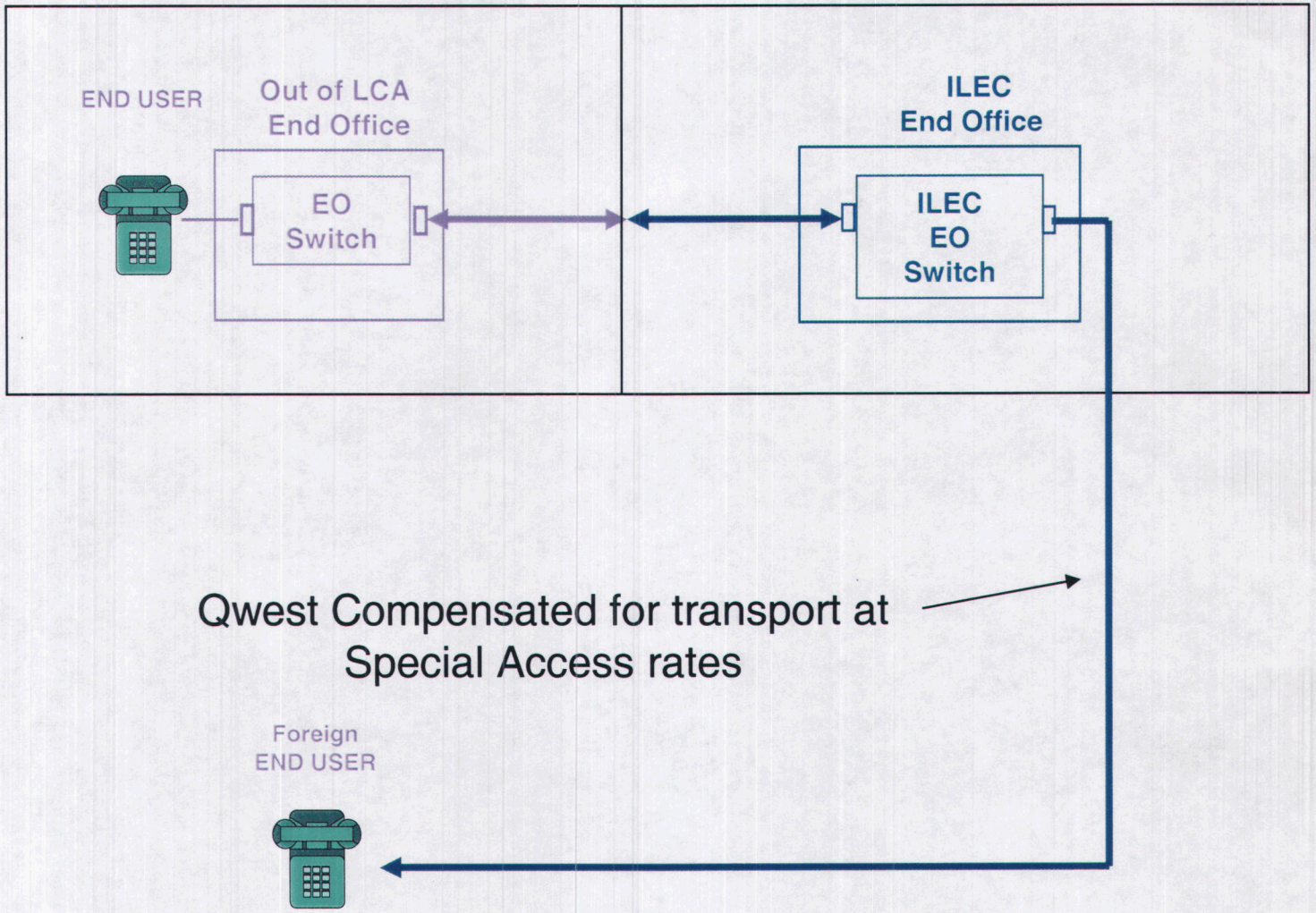
Traditional FX Call
From LCA 1 to LCA 2



Level(3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD # 11 Traditional FX Service

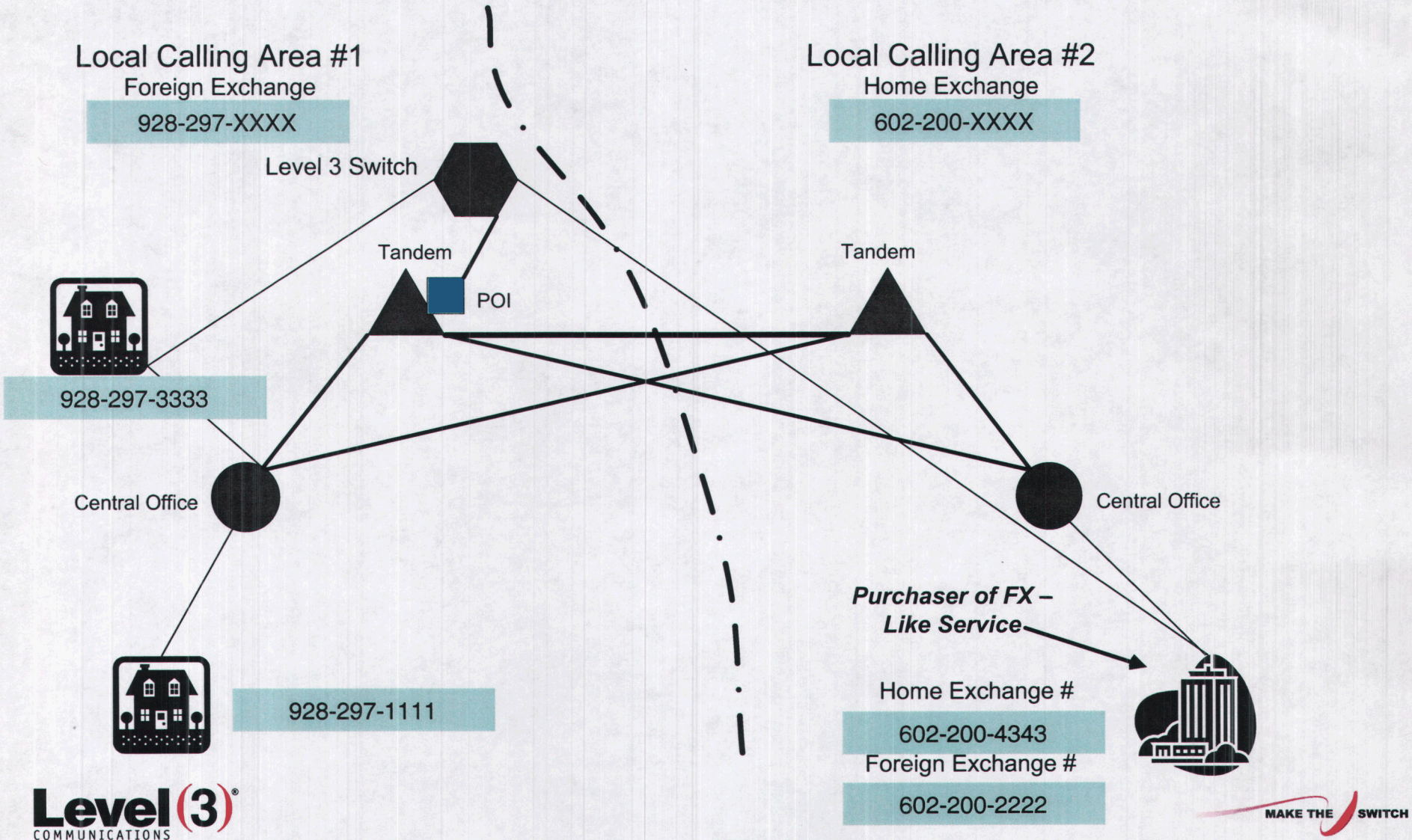


Level (3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD #12: FX-Like Service

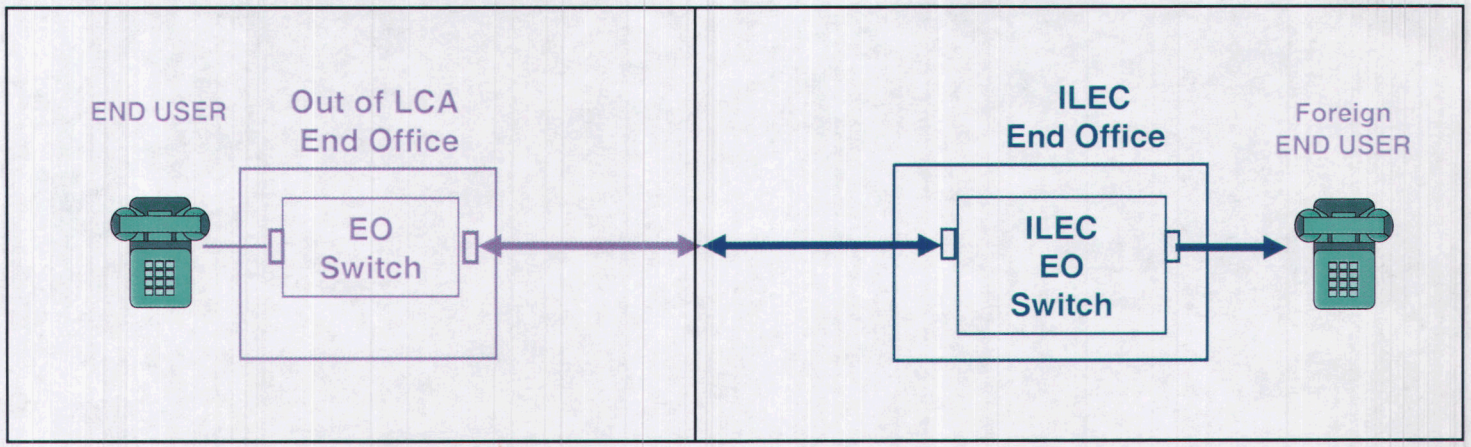
Typical "FX – Like" or "VNXX" Call From LCA 1 to LCA 2



Level (3) COMMUNICATIONS

MAKE THE SWITCH

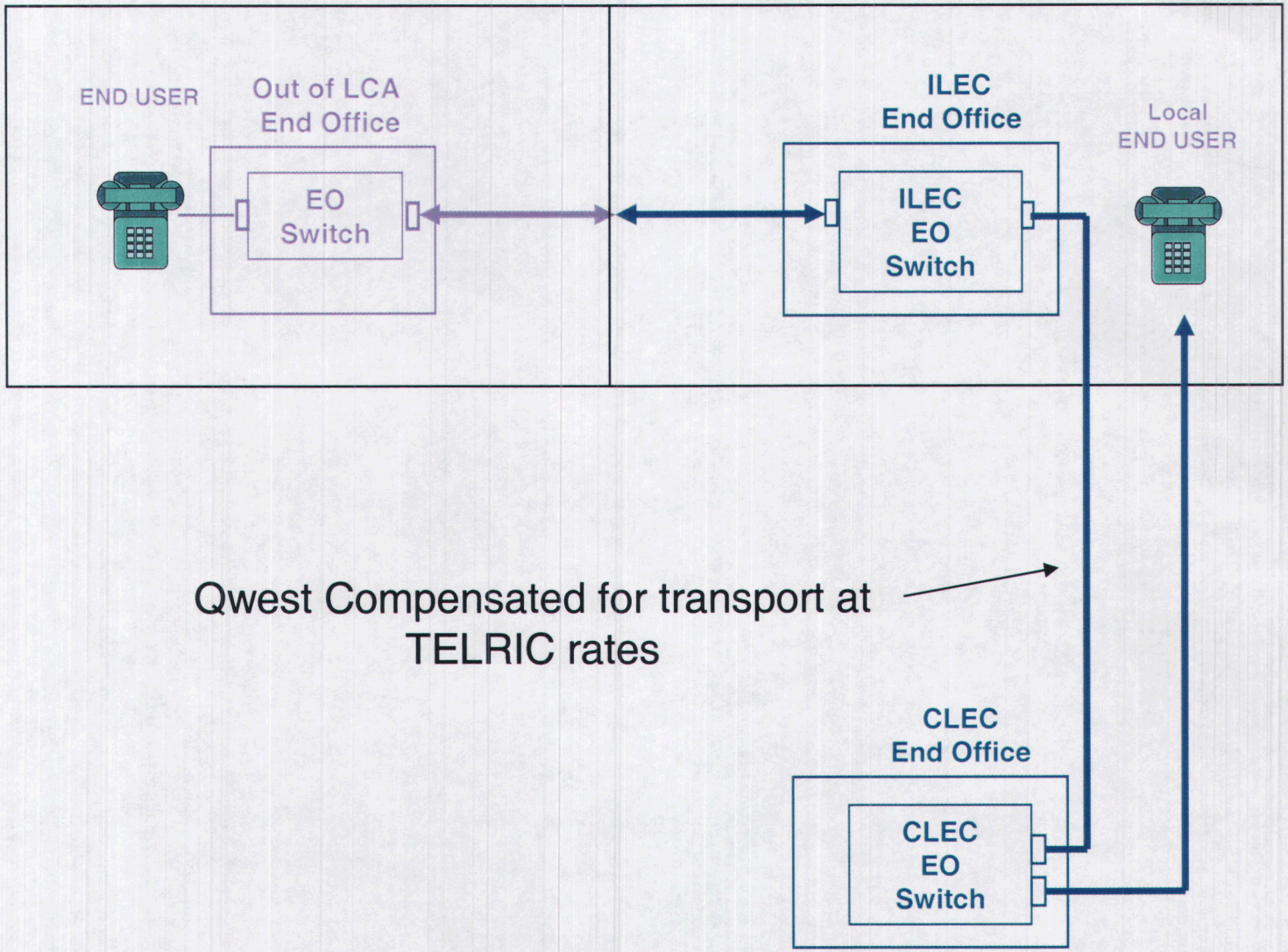
Exhibit RRD # 13: Traditional Local Service



Level(3) COMMUNICATIONS

MAKE THE SWITCH

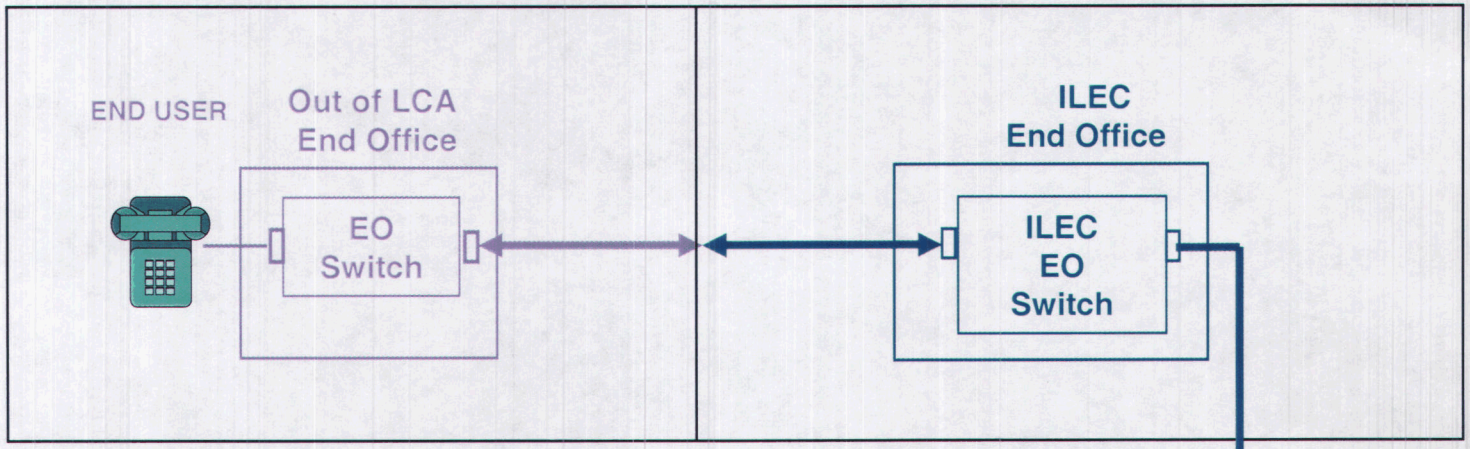
Exhibit RRD # 14: CLEC Local Service



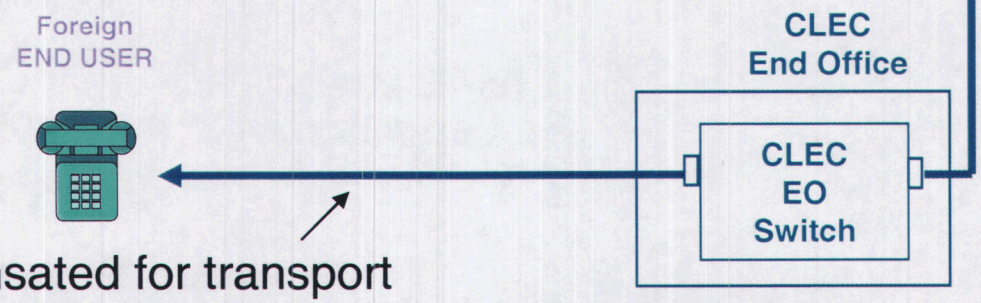
Level(3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD #15: CLEC FX Service



Qwest Compensated for transport at TELRIC rates

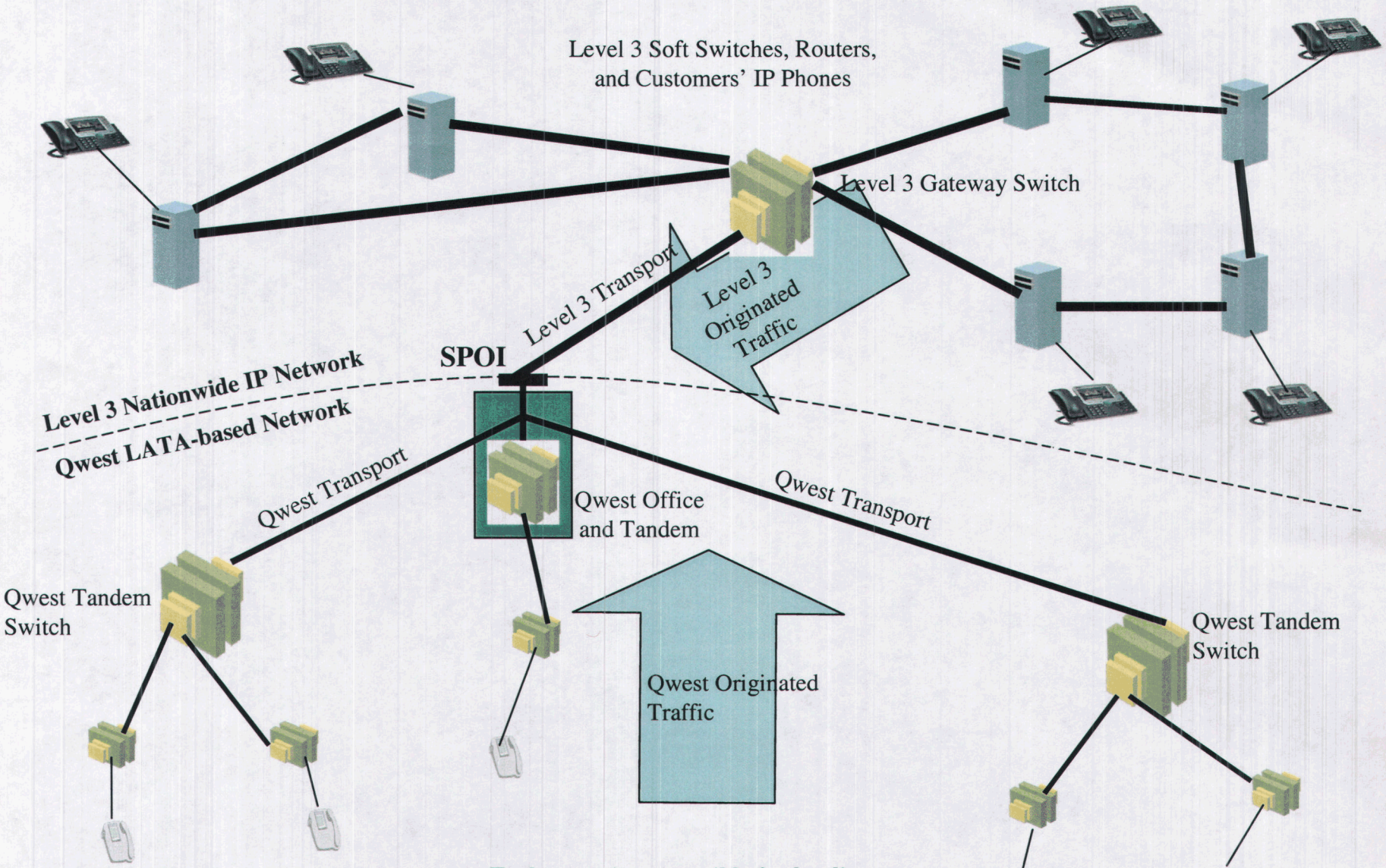


CLEC Compensated for transport

Level(3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD # 16: SPOI CONFIGURATION

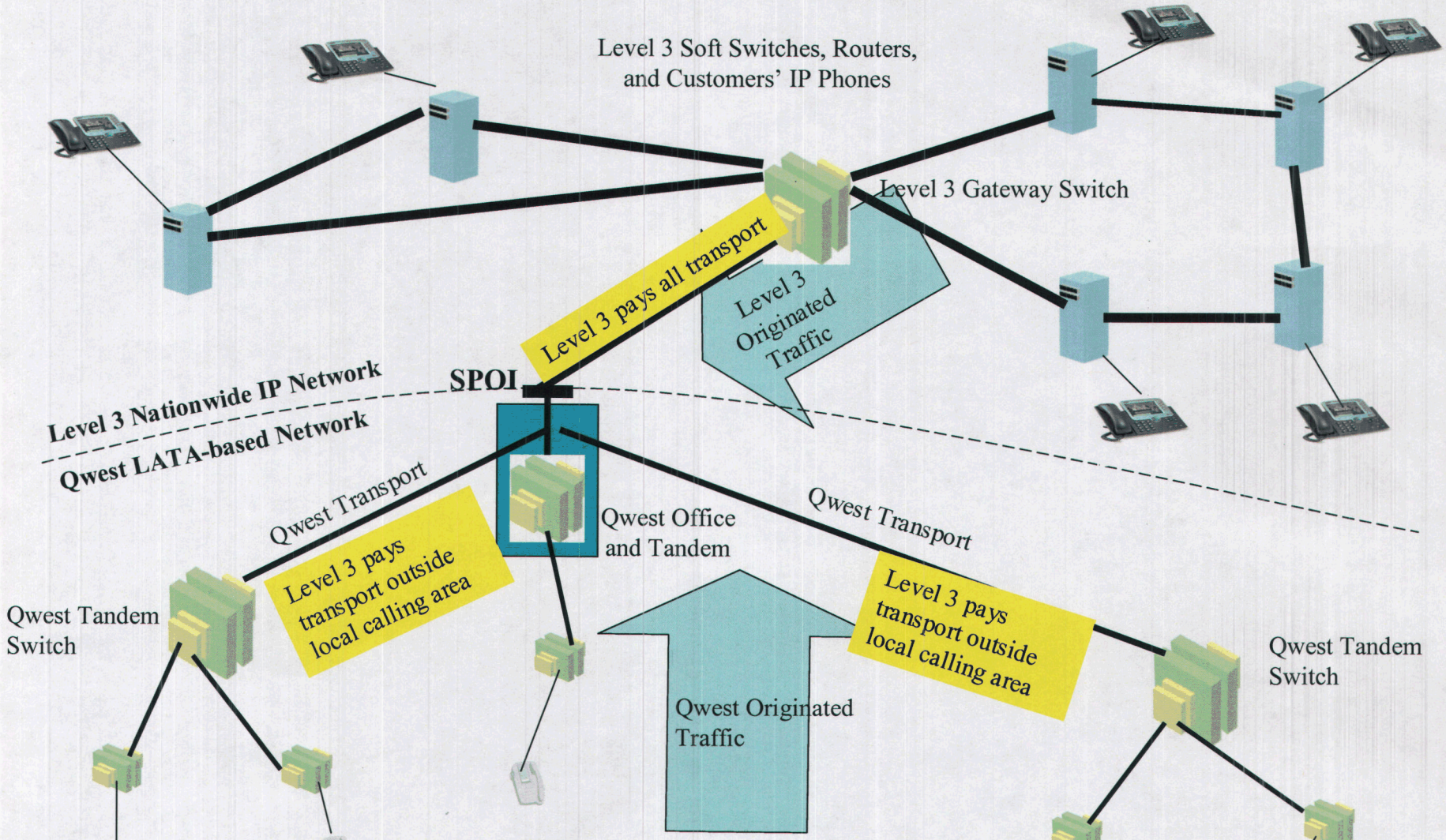


Each party is responsible for hauling their traffic to the SPOI. This is currently accepted practice.

Level (3) COMMUNICATIONS

MAKE THE SWITCH

Exhibit RRD # 17: SPOI CONFIGURATION – QWEST PROPOSAL



Qwest is demanding that Level 3 pay for transport within the Qwest network from the Qwest originating local calling area to the POI. Qwest would not pay Level 3 commensurate transport for transport to the POI from the Level 3 switch

Level 3 COMMUNICATIONS

MAKE THE SWITCH

EXHIBIT
L-2
admitted

ARIZONA CORPORATION COMMISSION

DOCKET NOS. T-03654A-05-0350; T-01051B-05-0350

IN THE MATTER OF LEVEL 3 COMMUNICATIONS, LLC'S PETITION FOR ARBITRATION PURSUANT TO SECTION 252(b) OF THE COMMUNICATIONS ACT OF 1934, AS AMENDED BY THE TELECOMMUNICATIONS ACT OF 1996, AND THE APPLICABLE STATE LAWS FOR RATES, TERMS, AND CONDITIONS OF INTERCONNECTION WITH QWEST CORPORATION

REBUTTAL TESTIMONY OF ROGIER R. DUCLOO
ON BEHALF OF LEVEL 3 COMMUNICATIONS, LLC

August 15, 2005

Table of Contents

I. Introduction 3

II. ISSUE 1: Single Point of Interconnection Per LATA 4

II. ISSUE 2: Combining Different Traffic Types on Interconnection Trunks 21

III. Additional Interconnection Trunking Issues Raised by Qwest 34

IV. ISSUE 3: VNXX/FX Traffic 44

V. ISSUE 8: Definition of Call Record 50

VI. ISSUE 20: Signaling Parameters 52

REBUTTAL TESTIMONY OF ROGIER R. DUCLOO ON BEHALF OF LEVEL 3 COMMUNICATIONS, LLC

I. Introduction

Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND BUSINESS ADDRESS.

A. My name is Rogier R. Ducloo. I am a Director with Level 3 Communications, LLC. My business address is 1025 Eldorado Blvd, Broomfield, CO, 80021. I am filing this testimony on behalf of Level 3 Communications, LLC of Broomfield, CO.

Q. ARE YOU THE SAME ROGIER DUCLOO WHO FILED DIRECT TESTIMONY IN THIS CASE ON JULY 15, 2005?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I am testifying in reply to the testimony of Qwest witnesses Mr. Brotherson, Mr. Easton, and Mr. Linse. They make statements in their testimony that are inaccurate and confusing, and they do not always represent the Level 3 position correctly. I would like to clarify some of the issues they address.

Q. HOW HAVE YOU ORGANIZED YOUR TESTIMONY?

A. I demonstrate below that Qwest's objections to Single Point per LATA are without merit; that Level 3's contract language addresses their concerns with exchanging differently rated traffic over a single interconnection network; and address several additional points made by their witnesses.

II. ISSUE 1: Single Point of Interconnection Per LATA

Q. MR. LINSE STATES THAT THE REAL ISSUE IN THIS ARBITRATION IS "WHETHER QWEST SHOULD BE REQUIRED TO PROVIDE INTERCONNECTION WHERE IT IS NOT TECHNICALLY FEASIBLE OR TO PROVISION/BUILD TRANSPORT FACILITIES WITHOUT COMPENSATION FOR THE BUILDING OF SUCH TRANSPORT FACILITIES." IS THAT THE REAL ISSUE?

A. No. Mr. Linse's statement assumes that Qwest is entitled to compensation for originating traffic on Qwest's side of the POI. This is contrary to federal law. Secondly, Mr. Linse mixes issues of technical feasibility and compensation. The two are not linked. The rule is quite simple: no carrier may charge an interconnecting LEC for originating telecommunications traffic on its side of the POI. Accordingly, Qwest's contract language throughout Section 7 which

requires interconnecting facilities-based LECs mirror its retail local calling area distinctions should be rejected.

Q: YOU SAY THAT QWEST'S CONTINUED RELIANCE UPON RETAIL LOCAL CALLING AREA DISTINCTIONS AS DETERMINED BY THE "PHYSICAL PRESENCE" OF THE END USER FOR PURPOSES OF INTERCARRIER ARCHITECTURE AND COMPENSATION REQUIREMENTS ONLY BENEFIT QWEST WITHOUT ANY CORRESPONDING BENEFIT TO THE PUBLIC INTEREST. PLEASE EXPLAIN.

A. Mr. Linse combines several concepts to come up with this assertion. Each must be examined individually in order to understand the relation of these parts to the assertion he makes. Let's start with Single POI. Mr. Linse claims that Qwest should be required to provide interconnection where it is not technically feasible. (Linse Direct p. 3) But a few lines later on the same page, Mr. Linse claims that "the real issue here is one of Level 3 not wanting to compensate Qwest for the use of its network." So it appears that Mr. Linse actually equates technical feasibility with economic cost. This is a judgment that the FCC, Congress and the federal courts have already made. The single POI rule says what it says: each carrier

bears the costs of originating and transporting its traffic to the POI. Mr. Gates provides a discussion on the economics underlying the wisdom of a single POI per LATA rule in his testimony.

Q. SETTING ASIDE THAT MR. LINSE'S POSITIONS ARE CONTRARY TO THE SINGLE POI RULE, ARE THERE ANY OTHER INCONSISTENCIES IN THIS PART OF HIS TESTIMONY?

A. Yes. When one thinks a little deeper about Mr. Linse's claim that Level 3 doesn't want to pay Qwest for use of Qwest's network, two things are apparent. First, he claims that Level 3 is making use of Qwest's network when a Qwest customer calls Level 3. From a business perspective, that's a convenient theory, but it doesn't pass the straight face test. I'd love to charge my competitors for my costs when customers on my networks call customers on their network. But that's not how interconnection works. When a Qwest customer calls a Level 3 customer that customer makes a call that utilizes Qwest's network until that call reaches the POI where Level 3 places it on Level 3's facilities and, if it is a modem call, places it on the worldwide web to any point, including the New York Times web page, wherever that may "physically reside". By the same token, when the Qwest end user calls the Arizona Business Gazette, the call rides

on the Qwest network until it either terminates to the end office serving the Arizona Business Gazette (assuming that the Arizona Business Gazette is also Qwest's customer) or to the carrier who serves the Arizona Business Gazette. In the latter example, Qwest would hand off the call to a fellow carrier at the Single POI. That carrier would carry the call over its own facilities and terminate it to the Arizona Business Gazette. In both examples Qwest's responsibilities ended at the POI. The difference with the second example is that the call terminated to a brick and mortar building "physically located" in the Phoenix local calling area. So it seems like a "local" call. In the previous example, it terminated into the vastness of the Internet. As to the previous example, there is an intuitive appeal to the idea that such a call is somehow "interexchange" because relative to the Arizona Business Gazette, the New York Times web page is somewhere else. That's part of the challenge of the Internet – distance (and time) do not matter on an IP network. Accordingly IP-based carriers (including Qwest or its affiliates who offer these services – I really can't tell from their webpage which it is) do not charge their end user customers "long distance" charges, nor is the service offered as a "long distance" service. So from a retail perspective, the service is no different than a call to the Arizona Business Gazette. From a

network perspective it is no different either. It is always a locally dialed call that is handed off at the POI. The call makes no use of the access network. If one accepts Qwest's reasoning, prior to the 1996 Act, Qwest was not allowed to provide an "interexchange" service that crossed LATA boundaries. Rather Qwest would have handed that call off to an "interexchange carrier" that charged minute-sensitive rates for such carriage and received "originating access" which included the subsidy given to ILECs who were precluded from offering such services at that time. Along comes competition, however, and now another LEC can pick up that locally dialed call and take it anywhere. While a call terminating to the Internet is "interstate" for purposes of jurisdiction, the FCC has stated that the call is not an "interexchange" call in the traditional sense of someone pre-selecting an IXC and paying that IXC to utilize the access network to carry a call. The truth of the matter is that as much as Qwest would like to make calls to the Internet appear as traditional "interexchange" calls, they aren't. There are no exchanges on the Internet. These are locally dialed calls handed off at the POI. Level 3 does the work and receives no additional compensation from Qwest's customer for providing such service.

Second, his claims that Level 3 will not pay Qwest for using Qwest's network is not true at all relative to what really happens when calls are exchanged. Let me explain. When a Level 3 end user calls an end user connected to Qwest's network, Level 3 would pay Qwest the costs of terminating that call. For VoIP traffic that would be seven one hundredths of a penny per minute, which is consistent with what the FCC stated in the ISP-Remand Order: that the costs of terminating an ISP-bound or voice call were the same. Since the costs are the same on Qwest's side of the network regardless of whether Qwest brings the call to Level 3 at the POI or accepts a call from Level 3 at the POI, symmetrical intercarrier compensation rates make sense. Moreover, to the extent the calls are "IP-in the middle", or traditional interexchange calls that Level 3 would terminate to Qwest over this same network, Level 3 would pay Qwest the same subsidy laden rates Qwest would receive were these calls handed off over the duplicative Feature Group D ("FGD") network Qwest would have Level 3 establish. So either way, Qwest is paid for its use of the network.

Q. ARE MR. LINSE'S CLAIMS CONTRADICTED BY QWEST'S DISCOVERY RESPONSES?

A. Yes. Qwest admits in response to Level 3 RFA 47 that the location of the POI does not determine whether Qwest has an obligation to pay reciprocal compensation. (Ducloo Exh. RRD-18). Interestingly Qwest qualifies this answer by stating that "under Qwest's proposed language the physical location of the called and calling parties determine the nature of the compensation" but as I've stated above, from a network perspective there is no difference in costs because all calls are handed off between the two carriers at the POI and the FCC has already affirmed as much in the ISP-Remand Order. In its response to Level 3 Request No. 48, Qwest admits that its obligations to pay reciprocal compensation do not vary based upon the location of Level 3's switch. Again Qwest explains away its contract proposals by importing concepts of retail regulation by claiming that the location of the calling and called parties have something to do with its costs. This is true only as a matter of how Qwest words its contract; it bears no relationship to what actually occurs on the network. (Ducloo Exh. RRD-19).

Q. MR. LINSE CLAIMS AT PAGE 6 OF HIS TESTIMONY THAT THE SINGLE POI IS NOT THE FINANICAL DEMARCATION POINT.

A. I am not entirely certain of the genesis of Mr. Linse's claim. Just to be clear, he states the following:

> As Mr. Easton's testimony explains, the POI is not the financial demarcation point between Level 3 and Qwest. Level 3 also incorrectly defines its POI as a point that is physically located on Qwest's network. In addition Level 3's proposed language is inconsistent and attempts to extend Qwest's interconnection responsibility to any point on the Qwest network to a point not even within Qwest's serving territory. (Linse Direct, Arizona, page 6, lines 4-8) [sic]

Mr. Linse's statement above is packed with several overlapping concepts best examined individually.

First, he states that the single point of interconnection per LATA is not the "financial demarcation point between Level 3 and Qwest." He provides no authority for this proposition other than his opinion. I would note that the single POI per LATA rule would have little meaning if it did not require originating carriers to haul traffic to the single POI in the LATA at their own expense. Mr. Gates explains the economic reasons that led the FCC and multiple federal district and federal circuit courts to affirm this rule.

Second, Mr. Linse states that Level 3 incorrectly defines the POI as a point that is physically located on Qwest's network. This raises factual questions about how parties interconnect and some legal questions that I'm sure Level 3's lawyers find interesting. I'll deal with the facts and only point to what might be a legal explanation for Mr. Linse's statement. The single POI is an interface between the Qwest network and the Level 3 network. At the physical, network

level, Level 3 typically brings fiber optic strands to the single POI, which is usually located within a Qwest tandem office. There the strands terminate to fiber optic termination equipment, which connect to add / drop multiplexers and other equipment that allow Level 3's network to communicate directly with Qwest's network. Qwest, for its part, typically connects DS-1 or DS-3 copper coaxial and other cabling to Level 3's facilities in collocation space Level 3 purchases from Qwest. While there may be other arrangements, none that Level 3 uses are so atypical as to raise the question of whether Level 3 has connected "on" or "within" Qwest's network. It really depends upon how you look at it, but common sense tells me that Qwest's distinction is largely semantic: Level 3's single POI is equally a point **on** the Qwest network as it is **within** the Qwest network.

Another possible explanation for Mr. Linse's statement that Level 3 had incorrectly defined its POI as "on" Qwest's network might be a point that Mr. Gates has provided regarding the concept of relative use of facilities (RUF). Backing up just slightly, RUF is the concept that applies to entrance facilities that Level 3 might purchase from Qwest which are dedicated to the exclusive use of the two carriers. So, if Mr. Linse bases his claim upon a world view that

(incorrectly) sees RUF as an exception to the single POI rule, his statement might have a basis. As Mr. Gates explains at page 46 of his direct testimony, RUF arises from and applies only to entrance facilities dedicated to the transmission of traffic ***between*** an ILEC's network and the CLEC's network. In other words, where a CLEC obtained an entrance facility from the ILEC to connect to the CLEC's switch, the effect of this rule (which remains embodied in 47 CFR § 51.709(b)) was to reduce the ILEC's charges for the entrance facility based on what proportion of the traffic going over it was ILEC-originated, as opposed to CLEC-originated. As Mr. Gates indicates, the FCC's *Triennial Review Remand Order,* however, relieved ILECs from obligations to provide entrance facilities — at least not at TELRIC-based rates — for these purposes. But even here, Mr. Linse's claim about "on" or "within" doesn't follow because the FCC's determination suggests therefore, that interconnection must occur "on" the ILEC's network and not "within" it as one can no longer unbundle entrance facility elements "within" the ILEC network. This seems logical. Therefore, Level 3 is not responsible for the costs "within" Qwest's network.

Q. DOES THE LEVEL 3 LANGUAGE PROPOSE THAT THERE IS NO DEMARCATION POINT BETWEEN THE NETWORKS AS MR. LINSE SUGGESTS?

A. Absolutely not. It is physically impossible not to have a demarcation point. Any fiber, coaxial cable, copper twisted pair or other means of connectivity must have a termination block or termination point. The demarcation point is always a location of that type and is always clear. Control and maintenance on one side of that point will be Qwest's responsibility and on the other side Level 3's responsibility. Physically, it can't be any other way.

Moreover, according to agreed upon terms within the contract there is no way that Level 3's contract provisions (presumably Level 3 Section 7.1.1) "extend Qwest's interconnection responsibility to any point on the Qwest network to a point not even within Qwest's serving territory." Setting aside the clarity of the single POI per LATA rule, and the physical impossibility of what Mr. Linse appears to suggest, the contract itself contains several references to demarcation point. The first refers to a demarcation point as the boundary line between Qwest's network and any other networks including a CLEC's network ("'Demarcation Point' means the point where Qwest owned or controlled

1 facilities cease, and CLEC, End User Customer, premises owner or landlord
2 ownership or control of facilities begin."). The second reference is within the
3 definition of POI ("'Point of Interface', "Point of Interconnection," or "POI" is a
4 demarcation between the networks of two (2) LECs (including a LEC and CLEC).
5 The POI is that point where the exchange of traffic takes place."). Moreover, the
6 POI is often accomplished by using meet points. As Mr. Gates explained in his
7 direct testimony the FCC has relieved ILECs of the obligation to unbundle
8 entrance facilities. Accordingly, if a carrier wants to interconnect with Qwest,
9 then that carrier must interconnect "on" Qwest's network, which means it pays
10 the full freight to get to the POI for its traffic and to pick up Qwest's traffic. In
11 that regard, the concepts of meet point and POI merge. Interestingly, the agreed
12 upon definition of Meet Point ("'Meet Point' is a point of Interconnection
13 between two networks, designated by two Telecommunications Carriers, at which
14 one Carrier's responsibility for service begins and the other Carrier's responsibility
15 ends.") again confirms that the POI would be the financial, legal and technical
16 boundary between the two parties' networks. Taken together and examined
17 against the background, common usage and practice within the
18 telecommunications industry these definitions make very clear that financial, legal

and technical responsibility for each company's network ends at the POI. So Mr. Linse's claims that Level 3's contract provisions require Qwest to extend its interconnection obligations to anywhere, including outside of Qwest's serving territory make no sense.

Q. NEVERTHELESS MR. LINSE IMPLIES AT PAGES 9 AND 10 OF HIS TESTIMONY THAT THE LEVEL 3 LANGUAGE MAY OBLIGATE QWEST TO EXCHANGE TRAFFIC WHERE IT IS NOT TECHNICALLY FEASIBLE TO DO SO. IS THIS TRUE?

A. No. Mr. Linse is mainly concerned with the potential routing of long distance traffic over Qwest's Local Only Tandem switches. He appears concerned that Level 3 might route jointly provisioned switched access traffic over the interconnection trunks. This is incorrect. Not only do the parties already have in place jointly provisioned trunk groups that provide for routing of switched access traffic to and from third party long distance carriers, they have also agreed to language in Section 7.5.1 of the Agreement that keeps these arrangements in place. So any suggestion of misrouting is not only technically not possible as these trunks are in place, the contract already deals with the issue.

To the extent Mr. Linse is concerned that "switched access" traffic will be routed to local only tandems, there are two responses. The first is technical: whether a call is destined for an NPA-NXX that subtends the "local only" tandem. If so, then it makes no difference whether the call is later characterized for billing purposes as "switched access", "VoIP", "ISP-bound", or "interexchange" or whatever. That's a rating issue, which is entirely separate from and occurs subsequent to the routing of the call. Again, to the extent that the call must route to another carrier or route to another end office, Level 3's proposals address those situations. Moreover, where the occasional exception comes up, Level 3 is a practical company and has worked with Qwest and every other ILEC including SBC, Verizon and BellSouth, to solve issues like these in practical ways for all parties concerned.

As to the question of rating, Qwest has a legal theory through which it attempts to base characterization of the nature of traffic based upon Qwest's network architecture. Whatever appeal that may have to the logic of how things appear from solely a circuit-switched incumbent's perspective, their determinations are legal claims, not technical network issues. Let me provide an example to make this clearer. Take a call made by a Level 3 or Qwest VoIP

customer. The call originates in IP format. Neither company's network knows or can know the "physical location" of the end user. The call originates somewhere on the Internet over some sort of broadband – whether DSL, WiFi, cable Modem or other technology. A traditional NPA-NXX number is associated with the device that the customer making the call uses because telephones on circuit switched networks cannot make calls to IP addresses. A call is placed to another NPA-NXX, but this call is headed toward a circuit switched landline customer. Once Level 3 hands that call off at the single POI per LATA (or via an additional POI that Level 3, for network control and other reasons, has established within the LATA), such traffic could route to a "local only" tandem with no difficulty so long as the terminating NPA-NXX was associated with an end office that subtended that tandem. As to the network, there is no logic to Qwest's distinction because calls are routed to and from NPA-NXX according to the routing instructions contained in the local exchange routing guide (LERG). So it really doesn't matter as a technical matter whether, when, or how the FCC classifies this traffic (unless, of course, in the highly unlikely event that the FCC includes specific routing instructions in its rules). Accordingly, Level 3's language accommodates this by focusing on the technical routing issues and proposes, as a

policy matter, that the compensation for information services mirror existing compensation for information service. So one is an issue of making the networks work, the other is an issue of who gets paid how much for exchanging traffic.

Q. MR. LINSE MAKES A POINT THAT QWEST MUST BUILD FACILITIES TO THE LEVEL 3 POI. IS THAT CORRECT?

A. No. Federal law is clear: competitive carriers may establish a single point of interconnection per LATA. Qwest's view of SPOI actually mixes concepts of retail regulation with interconnection between LECs to require that Level 3 assume costs of transport within Qwest's network (where Level 3 has no control over such costs). As a facilities-based competitor of Qwest, Level 3 has constructed a nationwide (and international) network. In order to connect its network to Qwest's network, Level 3 constructed, leased or purchased transmission facilities and equipment that reaches into the Qwest network at POIs Level 3 has established. Qwest customers benefit from Level 3 building these facilities in many ways, not the least of which is obtaining access to one of the world's largest Internet backbone.

Q. MR. LINSE STATES THAT LEVEL 3 LANGUAGE FOR PARAGRAPH 7.1.2 "METHODS OF INTERCONNECTION" IS INAPPROPRIATE. WOULD YOU AGREE?

A. No, I would not. He states that the Level 3 language mischaracterizes the methods of interconnection with the methods of establishing a POI. Since the establishment of a POI is essential for several of the methods of interconnection, any language that talks about methods of interconnection will logically need to talk about methods of establishing a POI. In point of fact, the Qwest language talks about the POI as well.

Q. ARE THERE PROBLEMS WITH THE QWEST CONTRACT LANGUAGE FOR PARAGRAPH 7.1.2?

A. Yes. The Qwest language does not specifically allow interconnection through a POI established at a third party collocation site. It is relatively common for CLECs to share a collocation site. Level 3 establishes POIs in third party collocation sites in a number of states and may need to do so in new locations in the future. Language in 7.1.2 should allow for this circumstance.

II. ISSUE 2: Combining Different Traffic Types on Interconnection Trunks

Q. WHAT IS LEVEL 3'S POSITION ON THIS ISSUE?

A. Level 3 and Qwest are perfectly capable of exchanging locally dialed traffic as well as all forms of traffic (including traditional circuit switch "interexchange" or "switched access" traffic) over Level 3's existing and extensive interconnection network. Qwest's requirement for Feature Group D ("FGD") trunks is unnecessary and duplicative.

Q. WHAT IS QWEST'S POSITION?

A. Qwest asserts that Level 3 must order and provision FGD trunks to each POI as well as separate interconnection trunk groups for local and intraLATA traffic based solely upon billing concerns. Qwest further claims that establishing a duplicative FGD network for purposes of exchanging "switched access" or "interexchange" or "FGD" would be just as efficient for Level 3 as it would be to use Level 3's existing and extensive interconnection network to exchange all such traffic today.

Q. WHY ARE MR. LINSE'S CLAIMS THAT LEVEL 3 MUST ESTABLISH FGD TRUNKING INCORRECT?

A. There is no issue as to whether traffic subject to different rating schemes can be exchanged over a single network. Though Qwest refuses to admit this in Arizona (Level 3's Motion to Compel is pending), Qwest admitted this in other states (such as Iowa) and I would expect the same answer in Arizona (Ducloo Exh. 20). Mr. Linse readily concedes as much at page 28 of his testimony when he states that Qwest can route local traffic over the same trunks as Qwest currently routes "switched access" or "interexchange" or "FGD" traffic today. The converse is equally as true. Thus, regardless of whether a small amount of "locally" rated traffic rides over FGD trunks (as with AT&T and others) or a small amount of "switched access" or "long distance" traffic rides over interconnection trunks (as Level 3 has accomplished with Verizon, SBC, and BellSouth) the billing concerns are the same: either way there is a concern that the CLEC terminating traffic to the ILEC or the ILEC terminating the traffic to the CLEC will over-report the lower rated traffic. Or looked at from the perspective that Qwest addresses, the party receiving the traffic will be concerned about ensuring that the traffic subject to the highest compensation rates will be reported at the most "accurate" levels.

All telecommunications traffic, regardless of what compensation billing systems later apply to it – whether those systems "mechanically" record the traffic

or whether the parties sample traffic streams and apply billing factors – can be exchanged over Level 3's existing, well-engineered network today without the need for any additional billing systems or personnel. Rather, as the parties today routinely exchange billing information and factors related to intraLATA toll, ISP-bound and other forms of traffic that occasionally appear on these trunks, there would not be any additional cost to Qwest for the parties to do the same and include "interstate" circuit switched (*i.e.* IP in the middle) and VoIP traffic within that calculation. Moreover, Qwest has no systems in place today, nor could it reasonably develop systems capable of determining the actual physical location of any end user. Thus, FGD trunks are irrelevant to rating any call. There is no certainty that the end users are physically located in the rate center associated with the switch associated with the calling and called NPA-NXX codes. Accordingly, Mr. Linse's objections to Level 3's Section 7.2.2.9.3.1 are unfounded.

Q. WHAT IS THE PROBLEM WITH ORDERING FGD TRUNK GROUPS TO EACH POI?

A. Almost all of Level 3's traffic is locally dialed traffic. In other words, Level 3 picks up and delivers all traffic to POIs located within the LATAs in which the

traffic originates from Qwest's customers or in which Level 3 brings it for termination to Qwest customers. Level 3 offers no retail interexchange services. Accordingly, end users have no reason to dial 1+ to reach Level 3's services. Thus, Level 3 has, and will have, very little traffic that utilizes traditional "access" networks such that any separate trunking, much less FGD trunks, which merely provide additional call recording functionalities, are necessary. So, it makes no sense for Level 3 to order separate FGD trunks for a small amount of access traffic. To the extent that 1+ dialed traffic must be exchanged with third party "interexchange carriers" Level 3 and Qwest have "meet point" trunk groups in place that provide that functionality.

Q. WHY DOES LEVEL 3 WANT TO PUT ALL OF THE TRAFFIC ON INTERCONNECTION TRUNKS RATHER THAN FGD TRUNKS AS QWEST IS PROPOSING?

A. Setting aside the sheer lack of necessity of establishing a duplicative network solely to address Qwest's illusory billing concerns, Qwest claims that its tariffs require that Level 3 utilize these trunks. Under those tariffs, Qwest would essentially impose retail rates on a co-carrier. In today's world, there is no justification for forcing retail rates upon a facilities-based co-carrier's exchange of

traffic within a LATA. That traffic is, can be and should be exchanged over interconnection trunks. Even assuming that Qwest's insistence upon Feature Group D trunks were rational, and assuming that billing concerns for these charges could not be addressed as Level 3 has addressed them with Verizon, BellSouth and SBC in interconnection agreements approved by thirty-six (36) state commissions, and assuming that the entire reason for distinguishing between "access" traffic and "local" traffic evaporated with the approval of 271 authority for every major ILEC, there is simply no technical reason for doing so.

Q. WHAT IS QWEST'S OBJECTION TO THE USE OF INTERCONNECTION TRUNKS FOR ALL TRAFFIC TYPES?

A. Qwest's objections boil down to an issue of access billing. Qwest is afraid that they won't receive their fair due for access charges on long distance calls. Historically they have billed access charges on FGD trunks. What they are proposing is for all traffic to go down FGD trunks so they can individually bill for the small number of access calls that go to and from Level 3. These FGD trunks would also unnecessarily tie up additional trunk ports on access and end office switches throughout Qwest's network. These circuits are sold in increments far beyond Level 3's existing needs, which results in additional unnecessary costs.

Moreover, requiring FGD trunks would require additional time and delay provisioning and testing these trunks, which would significantly (and unnecessarily) delay Level 3' ability to offer many of its VoIP services.

Q. WHAT IS LEVEL 3'S SOLUTION TO THE BILLING ISSUE THAT QWEST RAISES?

A. Level 3 is proposing that the companies use Percent Local Use (PLU) and Percent Interstate Use (PIU) to separately bill long distance traffic. PLU and PIU factors would be created based on periodic traffic studies. This method allows each company to bill the other for access charges in a fair and equitable manner. As I have said before, Level 3 expects to have only a small amount of access traffic anyway, and with access rates at historic lows, it isn't worth the effort to record minute by minute usage for each and every call and bill separately for those calls.

Q. IS LEVEL 3 USING THIS METHODOLOGY WITH OTHER ILECS?

A. Yes, Level 3 is combining all traffic on interconnection trunks in the SBC, BellSouth and Verizon territories. We are using the PLU/PIU method of billing in the 36 states comprising these Bell operating regions with problems no more severe or any different than the sorts of verification that occurs daily between carriers exchanging not only vast amounts of traffic, but vast amounts of billing

information about that traffic. If anything, Level 3's billing factors tend to reduce the costs of billing by virtue of the fact that reliable sampling and application of factors, as proposed by Level 3, actually requires far less effort than billing each and every call. It is unreasonable for Qwest to refuse this efficient and equitable solution.

Q. QWEST RAISES AN ISSUE OF BILLING JOINTLY PROVIDED SWITCHED ACCESS CALLS IF THE PLU/PIU METHODOLOGY IS ADOPTED. HOW DOES LEVEL 3 PROPOSE TO HANDLE THIS ISSUE?

A. Both Mr. Linse and Mr. Easton raise this issue in their testimony (pages 32 and 30 respectively). They both claim that traffic cannot be combined on interconnection trunks because billing records cannot be created for third parties for jointly provided switched access. However, Level 3 has already agreed to provision separate Meet Point Trunks to handle jointly provided switched access traffic according to the terms mutually agreeable to Qwest in the most current round of interconnection negotiations leading up to this arbitration. Accordingly, any claims even remotely related to problems about such billing (or routing) are unfounded.

Q. ARE MEET POINT TRUNKS COMMONLY USED FOR JOINTLY PROVIDED SWITCHED ACCESS TRAFFIC?

A. Yes. Since Level 3 does not have connectivity to all IXCs, Qwest is required to provide access to those IXCs through its tandem switches. Special trunks, called Meet Point Trunks, are typically provisioned to handle this traffic. The appropriate billing records can be created for traffic on the Meet Point Trunks.

Q. HAS LEVEL 3 AGREED TO PROVISION MEET POINT TRUNKS AT QWEST TANDEM SWITCHES?

A. Yes. Level 3 has agreed to provision Meet Point Trunks at Qwest tandem switches where Level 3 has traffic to the area served by the tandem switches. These trunks are in addition to interconnection trunks.

Q. WILL MEET POINT TRUNKING HANDLE THE PROBLEM RAISED BY MR. LINSE AND MR. EASTON?

A. Yes. Since Level 3 has agreed to establish Meet Point Trunks, the issue raised by the Qwest witnesses regarding jointly provided switched access is not an issue for the interconnection trunks. All remaining traffic can be carried on the Interconnection Trunks and billed using PLU/PIU factors.

Q. IS THIS THE WAY THAT JOINTLY PROVIDED SWITCHED ACCESS TRAFFIC IS HANDLED IN THE SBC, VERIZON AND BELLSOUTH REGIONS?

A. Yes it is.

Q. IS THERE A RELATED ISSUE WITH SS7 CALL SET UP MESSAGES?

A. Yes, there is. Qwest and Level 3 need to exchange SS7 messages in the course of interconnection and the exchange of traffic. Qwest would like to require unnecessary, duplicative links between the two SS7 networks. Level 3 would like to use the same SS7 links for both local and toll messages.

Q. WHAT IS LEVEL 3'S POSITION ON THIS ISSUE?

A. This issue is similar to the previous issue on combining both local and InterLATA switched access traffic on single trunk groups. Level 3 is proposing to use SS7 Quad Links for both local and toll traffic. This is an efficient use of scarce resources for both the links (which are already provisioned in a redundant manner for reliability) and ports on the Signaling Transfer Points (STPs). Level 3 proposes using the same PLU and PIU calculations discussed above for calculation of charges for SS7 messages.

Q. WHAT IS QWEST'S POSITION ON THIS ISSUE?

A. Qwest is proposing that Qwest and Level 3 put in separate, duplicative SS7 quad links (one set for local traffic and one set for toll traffic) between their SS7 networks. Qwest does not want Level 3 to use existing SS7 quad links for both local and toll traffic.

Q. DOES THIS ISSUE HAVE ANYTHING TO DO WITH SS7 AS AN *UNBUNDLED NETWORK ELEMENT?*

A. No. Level 3 does not use Qwest SS7 as a UNE and does not desire to do so. The dispute concerns how to interconnect the Qwest SS7 network with a future, as yet to be constructed, Level 3 SS7 network. This is purely an interconnection issue and does not involve UNEs. The exchange of SS7 traffic is essential for interconnection and should be done efficiently and economically.

Q. WHAT IS THE SS7 NETWORK AND WHAT ARE SS7 QUAD LINKS?

A. The SS7 network is the part of the PSTN that allows switches and databases to communicate with each other. Its main function is for call set up, but it is also used for database look up such as required by 800 service. SS7 quad links are the data links that connect two SS7 networks. Without these links, neither Qwest nor Level 3 could complete calls to the other company's network. Figure 1 (Attached

here to as Exhibit RRD-21, p.1) shows a set of Quad Links connecting Level 3 Signaling Transfer Points (STPs) and Qwest STPs with the associated Interconnection Trunk Groups. Figure 2 (Attached here to as Exhibit RRD-21, p.2) shows the SS7 Quad links and the associated signaling and transport paths for "Local" traffic over Interconnection Trunk Groups. Figure 3 (Attached here to as Exhibit RRD-21, p.3) shows Quad Links and the associated signaling and transport paths for IntraLATA Toll traffic. Figure 4 (Attached here to as Exhibit RRD-21, p. 4) shows Quad Links and the associated signaling and transport paths for InterLATA Toll traffic.

Q. WHAT EFFICIENCIES WOULD BE OBTAINED BY COMBINING LOCAL AND TOLL SS7 MESSAGES ON ONE SET OF QUAD LINKS?

A. Using the same quad links for both local and toll call set up messages will save both Qwest and Level 3 transmission links and ports on their SS7 switches. Since transmission links and SS7 ports are provisioned in a redundant manner for additional reliability, the Qwest proposal will waste a significant number of transmission links and ports on both networks, doubling the links and ports that are needed. Figure 5 (Attached here to as Exhibit RRD-21, p. 5) shows the Level 3 Configuration that requires only one set of Quad Links between the companies.

Figure 6 (Attached here to as Exhibit RRD-21, p. 6) shows the Qwest proposal that would require a duplicate set of Quad links, wasting network resources.

Q. IS IT POSSIBLE FOR QWEST TO IMPLEMENT THE SHARING OF LINKS BETWEEN LOCAL AND TOLL TRAFFIC?

A. Yes. Qwest does not need to distinguish between messages relating to local calls and messages relating to toll traffic. There is a simpler way to handle the billing issues for these messages. The same PLU and PIU factors that are used to correctly bill access charges for the actual calls can be used to charge for SS7 messages. The data traffic flowing between the two SS7 networks mirrors the actual call traffic flowing between the two networks as the SS7 messages are setting up and managing the calls. The PLU and PIU for the one can be used to accurately calculate billing for the other. Qwest can simply calculate the charges based on total messages and then factor the bill down using the PLU and PIU. If, hypothetically, the bill from Qwest to Level 3 for SS7 messages was $20,000 for one month and the PLU is 65%, then the actual bill would be $7,000. The calculations are simple and eliminate the concerns expressed by Mr. Linse.

Q. IF THE COMMISSION DECIDES THAT LOCAL AND TOLL MESSAGES CAN SHARE COMMON QUAD LINKS, SHOULD ACCESS

CHARGES APPLY TO ALL OF THE MESSAGES AS QWEST SUGGESTS?

A. No, that would be patently unfair to Level 3, especially since Qwest customers originate most of the local calls. Local calls should remain on a bill and keep basis. Only messages for toll traffic should be assessed access rates. The method I describe above will provide for the correct compensation without the difficulties of billing each message as Qwest would propose.

Q. WHAT DOES QWEST SAY ABOUT THE USE OF SS7 QUAD LINKS FOR LOCAL AND IP TRAFFIC?

A. Qwest in other states has made the very troubling statement that SS7 quad links that are used for local traffic cannot be used for IP traffic. Nowhere in the network today are SS7 messages segregated into IP messages and non-IP messages. To segment these messages would require the proliferation of SS7 Quad links throughout the industry. A ruling in favor of this Qwest proposal could disrupt call flow among many companies, forcing whole network architectures to change.

Q. WHAT SHOULD THIS COMMISSION DO WITH RESPECT TO THIS SS7 ISSUE?

A. The Commission should rule in favor of Level 3's language, which presents an efficient and fair way of managing the SS7 network, saving transmission links and SS7 switch ports in both the Level 3 and the Qwest networks.

III. Additional Interconnection Trunking Issues Raised by Qwest

Q. QWEST WITNESSES STATE IN THEIR TESTIMONY THAT QWEST SHOULD NOT BE REQUIRED TO PAY FOR INTERCONNECTION COSTS WITHIN THE QWEST NETWORK. IS THIS AN EQUITABLE VIEW OF INTERCONNECTION?

A. No. Nine years after the Act, Qwest is still trying to treat interconnection as a new form of access. After divestiture, Qwest was allowed to collect access revenue from all of the IXCs, which made sense at the time as its ILEC predecessor was not allowed to sell retail interexchange (for which IXCs charged per minute of use charges) services outside of LATA boundaries. That has changed, and now Qwest competes nationwide for the provision of service packages on a nationwide basis. Mr. Gates examines some of these service offerings in his testimony.

1 Despite the passage of the Act, enormous change in telecommunications
2 markets, advent of IP technologies that remove the necessity of most traditional
3 regulatory distinctions, Qwest still wants to treat its competitors as if they were
4 interexchange carriers. While I can understand Qwest's motives – what carrier
5 would not want to reverse compensation flows and receive 50 to 100 times what
6 its competitor currently charges for the termination of vast amounts of traffic
7 within each LATA - this is not the way interconnection was set up by the Act, the
8 FCC or, I believe, by the Commission.

9 **Q. WHICH PARTY PAYS FOR INTERCONNECTION TRUNKING?**

10 A. As Mr. Gates points out and as Level 3 will prove in its briefs, the FCC, federal
11 district courts, and federal circuit courts nationwide have repeatedly confirmed
12 that each party is responsible for its costs of originating traffic to the single point
13 of interconnection per LATA. In a sense, as Mr. Gates explains, in both his direct
14 and his rebuttal testimony, the Act, for purpose of intercarrier compensation and
15 to ensure that ILEC retail offerings were not used to constrain competition,
16 established the LATA as a local calling area for interconnection purposes. This
17 means that each party pays its own costs of originating traffic to the POI. Where
18 the terminating party is also the presubscribed long distance carrier of the

originating ILEC customer, the call is routed via an access tandem to the access network, in which case rules governing the offering of access services would apply. In either case, however, the long established rule, and until the rules change, the party **originating** a call is supposed to compensate the other party for transport and termination applies. This means that with respect to locally dialed traffic handed off at the POI – where the originating customer is not presubscribed to and paying the terminating carrier an additional per minute of use charge for what until after the Telecommunications Act of 1996 was the only way to receive a competitive telecommunications service – and the originating carrier pays the freight to get there. So the party originating traffic pays for transport (trunking) in both networks. While a terminating party pays system is conceivable, it is likely that regulators have stayed away from it for the very simple reason that it would lead to regulatory arbitrage because the originating carrier would have great incentive to shift its costs to the terminating carrier.

Q. WHAT IS QWEST'S POSITION ON CHARGES FOR TRANSPORT AND TERMINATION?

A. Qwest's positions result from reverse engineering sound network principles, sound technical principles, as demonstrated in my direct testimony and herein,

and rational economic principles as Mr. Gates demonstrates, into a system that asymmetrically compensates Qwest. When traffic enters the Internet from Qwest customers dialing into Level 3's network, Qwest would have Level 3 assume Qwest's costs of bringing the traffic to the POI and/or receive nothing for terminating this traffic. When traffic leaves Level 3's network – *i.e.* VoIP calls terminating from the single POI to Qwest's network, Qwest would have Level 3 pay terminating access charges that exceed FCC reciprocal compensation rates by several orders of magnitude. Qwest's contract proposals consistently result in the competing carrier always paying much more to Qwest – whether Qwest changes the rules of compensation or disguises their cost shifting via requirements that tie intermodal competitors to legacy retail distinctions. While such a system might continue to insulate Qwest from competitive pressures, it is neither mandated by the Act, pro competitive policy, or sound principles for exchange of traffic.

Q. IS THIS THE REASON THAT LEVEL 3 ADDS LANGUAGE TO THE CONTRACT IN SEVERAL PLACES IN AN ATTEMPT TO CLARIFY THE LIMITATIONS ON THE CHARGES QWEST CAN ASSESS TO LEVEL 3 ON THE QWEST SIDE OF THE POI?

A. Yes. Level 3 was careful in its revisions to Qwest's proposed agreement to highlight those areas where Qwest shifts the costs to Level 3 for traffic originating on Qwest's side of the POI. At several places throughout the contract, Level 3 has added the following language:

> Nothing in this agreement shall be construed to require CLEC to pay Qwest for any services or facilities on Qwest's side of the POI in connection with the origination of traffic from Qwest to CLEC; and nothing herein shall be construed to require CLEC to pay for any services or facilities on Qwest's side of the POI in connection with the termination of traffic from CLEC by Qwest, other than reciprocal compensation payments as provided in this Agreement.

Qwest claims in its testimony that Level 3 is trying to avoid paying Qwest what is due under the law. While the lawyers can argue over the meaning of the law, one thing is clear: Qwest's interpretations of the flow of payments make sense only if one adopts Qwest's view of the law.

Q. IS THERE ANY TECHNOLOGICAL REASON TO ADOPT QWEST'S POSITION THAT LEVEL 3 SHOULD PAY QWEST'S COSTS OF ORGINATING AND TRANSPORTING TRAFFIC TO THE POI?

A. Viewed from a network perspective, Qwest's propositions make no sense: there can be no sound technological reason for forcing a network built around the

technological reality that transport and switching permit Level 3 (and Qwest where it deploys IP networks) to control vast networks covering enormous geographic areas with a few strategically deployed softswitches and related equipment to vastly increase either the deployment of the equipment or the costs of using that equipment every time it touches circuit switched networks controlled by Incumbent LECs. Accordingly, Level 3's language reflects the very straightforward principle: all traffic is exchanged at the single POI per LATA. Each party bears its costs for getting to that point. Intercarrier compensation payments would flow accordingly.

Q. HAS LEVEL 3 EVER CHARGED QWEST FOR TRANSPORT WITHIN THE LEVEL 3 NETWORK?

A. No. Level 3 only charges Qwest for termination. By FCC rules, Level 3 could charge Qwest for transport on Qwest originated traffic. Under FCC rules, reciprocal compensation should pay for transport and termination. Level 3 does not charge Qwest for transport, only for termination.

Q. MR. LINSE SEEMS TO BE CONCERNED ABOUT LEVEL 3'S LANGUAGE ALLOWING DIRECT CONNECTION TO QWEST EQUIPMENT. IS THIS A LEGITIMATE CONCERN?

A. No, it is not. Connection to any type of equipment, whether it is to a switch, a multiplexer, a fiber hub or any other type of equipment, is always accomplished through a connection block on some type of distribution frame. Typically, Level 3 comes into a Qwest office with fiber facilities that are either terminated on collocated equipment or to a Qwest fiber panel. The POI or SPOI can be at either of those facilities. The fiber connects to equipment that converts the optical signal to an electrical signal and "demultiplexes" (*i.e.* unpacks the multiple high speed signals into lower speed component increments) to DS3 or DS1 speeds (and signaling parameters). On this side of the Level 3 equipment, Qwest coaxial cables providing operating at those speeds are connected. The POI or SPOI may be a terminal on the multiplexer, either a Qwest demultiplexer or a Level 3 demultiplexer. Or the POI or SPOI may be on a terminal block or distribution frame at the DS3 or DS1 level somewhere in the collocation space or somewhere in the Qwest office. Generally, Qwest and Level 3 engineers and technicians decide where the most convenient place is for the actual, physical hand off. Mr.

Linse's concern is unfounded. The Level 3 equipment and Level 3's interconnection with Qwest equipment is not some alien invasion that will somehow pollute Qwest's network.

Q. MR LINSE SUGGESTS ON PAGE 21 OF HIS TESTIMONY THAT LEVEL 3 WILL NOT ADD DIRECT TRUNKING WHEN TRAFFIC VOLUMES WARRANT. IS THIS CORRECT?

A. No, it is not. Level 3 always operates in a manner consistent with good engineering policy. Level 3 has always added direct trunks when the traffic warrants. Level 3 typically adds direct trunks when traffic volumes reach 512 BHCCS. There may, however, be circumstances when traffic should be allowed to increase beyond this point for a period of time. Level 3 may expect a decrease in traffic to a particular end office, for example. Level 3 does not think that the 512 BHCCS rule should be applied without any consideration of business and technical realities.

Q. MR. LINSE SPENDS A GOOD BIT OF TIME DEFENDING THE 512 BHCCS THRESHOLD FOR ADDING DIRECT TRUNKING TO END

OFFICES. DO YOU HAVE SOME CONCERNS WITH THE 512 BHCCS THRESHOLD?

A. Yes, I do. If you do the calculation, the 512 BHCCS threshold has the CLEC adding a direct trunk when the equivalent traffic will fill only 14 of the 24 channels in the DS1 that will be established. This represents slightly less than 60% utilization of the direct trunk. Qwest becomes very concerned when utilization of any interconnection trunk drops below 50%. So they are having the CLEC establish a direct trunk when the traffic barely reaches 60% and they want to disconnect trunks when the utilization falls below 50%. A very small change in business, like the loss of one customer with 20 phone lines, could cause Level 3's business to a particular end office to change by 10%. So the 512 BHCCS rule that Qwest is promoting may be a bit too restrictive. The maximum capacity of a DS1 is 864 BHCCS. A more reasonable threshold would be 75% of this level, or 648 BHCCS instead of 512. In some situations where business is known to be quite variable, even higher thresholds should be contemplated. The Level 3 Language is more flexible in dealing with the unique situations that may arise.

Q. DOES MR. LINSE ADMIT THAT LEVEL 3 HAS BEEN COOPERATIVE WHEN WORKING WITH QWEST ON TRUNKING ISSUES?

A. Yes, he does. Level 3 plans to continue its cooperation in maintaining efficient interconnection with Qwest. The Level 3 language allows for more innovation in doing this.

Q. MR. LINSE STATES A CONCERN THAT IF CLECS DO NOT FOLLOW THE 512 BHCCS RULE, IT WILL EXHAUST QWEST'S TANDEM SWITCHES. IS THIS A REAL ISSUE?

A. No, it is not. Seven years ago, when there were dozens of new CLECs with little engineering experience, this may have been a concern. Today, with far fewer CLECs, all of whom have experienced engineering staffs, there is no need to worry about this issue. CLECs have just as much interest in maintaining an efficient network as Qwest does. It is more expensive to route traffic through the Qwest tandem, and CLECs realize this. There are economic constraints that dictate an efficient network, as well as good engineering practice that everyone understands.

Q. MR. LINSE SEEMS CONCERNED THAT LEVEL 3 HAS REMOVED LANGUAGE FROM 7.2.2.9.6 THAT SPECIFIES THE TYPES OF

SWITCHES WHERE TRAFFIC IS TERMINATED. WHY IS LEVEL 3 REMOVING THE SPECIFIC SWITCH TYPE?

A. There are two reasons. First, as I have mentioned several times before, the Qwest language is limiting and restrictive. The Level 3 language is permissive and flexible. Second, it is not clear how the Qwest language would be applied to switches that carry multiple traffic types. Qwest does not mention switches that handle both local and toll traffic types. It is also not clear that Level 3 would be allowed to interconnect with new, VoIP switches that Qwest may install in its network. Level 3 should have the ability to interconnect with any switch type, either existing or future switch types. Future switches may be called "edge switches" instead of tandems or end offices, for example. Level 3 should be allowed to interconnect at any technically feasible point on the west network.

IV. ISSUE 3: VNXX/FX Traffic

Q. MR. BROTHERSON CLAIMS THAT VNXX/FX IS COMPLETELY DIFFERENT FROM NORMAL FX SERVICE THAT QWEST OFFERS. WOULD YOU AGREE FROM A TECHNICAL POINT OF VIEW?

A. No, I would not. VNXX and FX are essentially the same in the modern network where CLECs coexist with Qwest. With both Qwest FX and Level 3 VNXX, the

originating party must take their customer traffic to the POI. Mr. Brotherson makes the point that Qwest does this by selling private line service to the FX subscriber. Level 3 provides the same type of transport to its VNXX/FX customers.

Q. HOW ARE THESE VNXX/FX CALLS ROUTED?

A. VNXX/FX calls are routed between the local switches as normal local calls, or as toll calls, depending on whether the NPA-NXX of the VNXX/FX number being called is included in the calling switch's table of "locally dialable" NPA-NXXs. Neither the originating nor terminating switch has any way to know where the end user with the VNXX/FX service is actually located, nor does it matter for proper switching and delivery of the traffic. The switch that hosts the VNXX/FX customer has a circuit coming in that it associates with phone service, providing dial tone and other local services. The switch has no way to know whether the customer loop is 500 yards, 2 miles, or 200 miles long.

Q. HOW ARE THESE VNXX/FX CALLS BILLED?

A. Neither CLEC nor ILEC billing systems, nor the FCC for that matter, distinguishes between "local" ISP-bound traffic and "toll" ISP-bound traffic. Accordingly, carriers bill for ISP-bound traffic based upon billing records collected from the interconnection trunks and other factors that the parties have agreed to use. For example, assume that a person signs up for Qwest's wireline

(circuit-switched) telephone service. Assume further that this person decides to access the Internet via a dial-up account (perhaps DSL or cable modem are too expensive or not available). They call a telephone number that routes to Level 3's network. When that person wishes to access the Internet, Qwest's network routes that call to Level 3's POI. As to how these calls might be rated according to traditional (largely pre-Act) methods, the originating and terminating phone numbers are assigned to switches. Those switches also have rate centers associated with them. Rate centers are geographic coordinates that carriers on circuit switched networks have traditionally used to apply distance sensitive charges to calls. In that sense, they are economic boundaries, not network boundaries. Returning to our call flow, if the originating and terminating NPA-NXX appear as "local" to each other when the call record data is later examined, then the originating carrier would rate the call as "local" call and there is no toll charge. It does not matter if the calling or called party is 500 yards, 2 miles, or 200 miles from the end office out of which the number is assigned because in every instance the call is handed to Level 3 at the POI where Level 3 then carries this call.

Q. WHAT ARE THE MAIN ISSUES THAT SHOULD BE CONSIDERED WHEN DECIDING THE DISPOSITION OF VNXX/FX TRAFFIC?

A. The use of VNXX/FX allows CLECs and their ISP customers to compete with Qwest and the Qwest ISP without duplicating the Qwest network or placing modem banks in every wirecenter. The use of VNXX/FX allows the CLEC and its customers to provide Internet service in small to medium sized communities where competitive ISP service would not otherwise be available.

Q. WILL QWEST'S POSITION ON VNXX/FX HARM THE INTERNET?

A. Yes, it will. Qwest essentially wants to charge access rates for Internet traffic. This will kill competition among ISPs and will lead to higher prices for Internet service. Only ISPs who collocate modem banks at every Qwest office will be able to compete. This is more expensive and will drive up costs.

Q. AT PAGE 50 OF HIS TESTIMONY, MR. BROTHERSON SAYS THAT A VNXX/FX CALL "...IS ROUTED AND TERMINATED AS ANY OTHER TOLL CALL." IS THAT A CORRECT STATEMENT?

A. No. The call routing and processing requirements for VNXX/FX and toll services are dramatically different. VNXX/FX calls are routed to the local switch like any other local call. They are then routed to the foreign exchange via some form of transport for termination. Further, the VNXX/FX number is almost always

associated with one exchange. However, toll calls such as an 8XX service are routed from the customer premise, through the local central office to the access tandem for additional routing and billing instructions. The call requires a Line Information Database ("LIDB") dip for information on the IXC carrying the call and the true ten digit terminating routing number associated with the 8XX number. Plus, unlike VNXX/FX calls, the 8XX calls could be coming from numerous, even hundreds of exchanges in a large geographic area (i.e. eastern United States), while VNXX/FX service is generally associated with just one foreign exchange. Finally, the ILECs have always booked FX revenues and expenses as local, while they booked 8XX service revenues and expenses as toll.

VNXX/FX and 8XX services also impact the ILEC in different ways. VNXX/FX service routes calls just like other local calls. There is no need to take a VNXX/FX call to the access tandem, although depending upon network configuration, a FX call could be routed through a local tandem. I'm not aware of any ILEC claiming that VNXX/FX calls impose additional costs on their network or operations. There is an additional cost associated with 8XX service calls because the toll dialing pattern automatically routes the call to the access tandem.

At the tandem there is the additional cost associated with a database dip and number conversion.

Level 3's service, which is provided in essentially the same manner as FX service, is therefore clearly distinct from 8XX service. Customers perceive the service as local and the ISPs use the service to acquire a "local presence" for their customers, just like Qwest's customers who purchase FX service. (Indeed, one might wonder why ILECs need to offer FX service when 8XX service is available to consumers? The reason, of course, is consumer demand to which any reasonable carrier wants to respond.) The Level 3 service is dialed and routed on a local, as opposed to a toll basis. Like FX service, the Level 3 service does not require sophisticated database dips or number conversions, and as such, does not impose those additional costs on the ILEC. The Level 3 service is associated with a specific exchange, and not hundreds or thousands of exchanges normally associated with 800 service.

Q. AT PAGE 51 OF HIS TESTMONY, MR. BROTHERSON STATES THAT "LEVEL 3 WANTS THE CALL ROUTED OVER THE PSTN, BUT FEELS NO RESPONSIBILITY FOR PROVIDING THE TRANSPORT TO THE DISTANT LOCATION." IS THAT A CORRECT STATEMENT?

A. No. Level 3 is completely responsible for the termination of the call regardless of the location of the Level 3 subscriber. All Qwest is required to do is to deliver the call to the POI. Mr. Brotherson's statement completely misstates the way these calls are routed. He suggests that Level 3 uses Qwest's "toll network", and that is likewise incorrect. It is Level 3 – not Qwest – that is transporting these calls to their destination.

V. ISSUE 8: Definition of Call Record

Q. WHAT IS THE ISSUE BETWEEN THE COMPANIES ON CALL RECORDS?

A. As Mr. Linse indicates in his testimony under this issue, the companies have differences on the information that should be included in the record of a call.

Q. WHAT IS THE REASON THAT LEVEL 3 NEEDS ADDITIONAL INFORMATION IN THE CALL RECORD?

A. There are situations where Level 3 does not know the identification of the carrier originating a call. Without the information that Level 3 is requesting, Level 3 does not know what party to bill for the call. Level 3 needs the information it is

requesting for proper billing. Qwest should respect this request and provide the information.

Q. MR. LINSE MAKES A POINT OF SAYING THAT THE INFORMATION LEVEL 3 IS REQUESTING IS NOT ALWAYS AVAILABLE AND IS NOT REQUIRED BY CURRENT INDUSTRY STANDARDS. IS THIS TRUE?

A. Mr. Linse is incorrect in some of his statements. While the information Level 3 is requesting in the call record is not available 100% of the time, it is available most of the time. There are no industry standards on the information that must be provided. Telecommunications carriers, however, frequently tailor such guidelines to the practical realities of their operating environments. With the advent of new carriers and different types of call routing, the identification of originating carriers has become more difficult. The information Level 3 is requesting is an attempt to solve these problems.

Q. WILL THE QWEST LANGUAGE RESULT IN INCORRECT BILLING OF CALLS?

A. Yes, it will. As I stated above, the information Level 3 is requesting is necessary on an increasing number of calls for proper billing of the correct carrier to occur.

Qwest needs to realize these needs and accommodate them so that proper billing can go forward.

Q. WILL OTHER CARRIERS NEED THIS INFORMATION IN THE FUTURE?

A. Absolutely. Qwest is being short sighted on this issue.

Q. DOES THE QWEST LANGUAGE ON THIS ISSUE ADDRESS ALL OF LEVEL 3'S CONCERNS AS MR. LINSE SUGGESTS?

A. No it does not. Level 3 is making a specific request for language that will address new industry billing problems. These problems should be addressed here and now, between these companies, and not wait years before the industry advisory bodies decide on changes to the guidelines. Level 3's language should be adopted.

VI. <u>ISSUE 20: Signaling Parameters</u>

Q. WHAT IS THE MAIN ISSUE ON SIGNALING PARAMETERS?

A. Level 3 is proposing a new signaling parameter that Qwest and Level 3 could use to track VoIP traffic. Level 3 believes that there will be a need in the near future

to track VoIP traffic and to treat it differently than normal, PSTN traffic, with respect to reciprocal compensation.

Q. MR. LINSE RAISES NUMEROUS OBJECTIONS TO LEVEL 3'S PROPOSAL. DO YOU FIND HIS ARGUMENTS PERSUASIVE?

A. No, I don't. The SS7 protocol has many optional fields and many fields in use with unassigned codes. It is quite appropriate for two companies to decide on the use of an optional field or the use of an unassigned code in an existing field. Level 3 is proposing to use the Call Record Information (CRI) field to track VoIP traffic. This is a perfectly reasonable proposal and could easily be adopted by the industry as a guideline once Qwest and Level 3 begin using it.

Q. WHY SHOULD THIS BE DECIDED NOW, RATHER THAN WAITING FOR AN INDUSTRY STANDARD OR GUIDELINE?

A. It is our expectation that the FCC will rule in the near future on the disposition of VoIP traffic. When the FCC does rule, it would be very good for the companies to have experience with a methodology of tracking the amount of VoIP traffic to and from their respective networks for proper billing. The use of CRI is a good, efficient way to communicate to each other when a call is VoIP based.

Q. WOULD THE USE OF A CRI CODE FOR THIS PURPOSE BE A COLOSSAL UNDERTAKING AS MR. LINSE SUGGESTS?

A. No. It would be fairly easy. The companies could decide on the use of a non-assigned CRI code and then program that code into their SS7 networks. The selection could be done very quickly. Programming a new code in the SS7 equipment is not that difficult since CRI codes are added by the industry periodically and must be programmed once they are added.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes

EXHIBIT RRD 18

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-047

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 047

Please admit that the location of the POI between Qwest and Level 3 in Arizona does not determine whether Qwest has an obligation to pay reciprocal compensation to Level 3 for Level 3's transport of Qwest's traffic. If your answer is anything other than an unqualified admission, please describe in detail your qualification or denial, and provide any information or evidence which supports your qualification or denial.

RESPONSE:

Qwest objects to this request on the basis that it calls for a legal conclusion and is therefore not an appropriate subject for discovery.

Without waiving the foregoing objections, Qwest provides the following response:

Admit. Under Qwest's proposed language, the physical location of the called and calling parties determine the nature of compensation.

RRD-18

EXHIBIT RRD 19

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-048

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 048

Please admit that the location of Level 3's switch in Arizona does not determine whether Qwest has an obligation to pay reciprocal compensation to Level 3 for Level 3's transport of Qwest's traffic. If your answer is anything other than an unqualified admission, please describe in detail your qualification or denial, and provide any information or evidence which supports your qualification or denial.

RESPONSE:

Qwest objects to this request on the basis that it calls for a legal conclusion and is therefore not an appropriate subject for discovery.

Without waiving the foregoing objection, Qwest provides the following response:

Admit. Under Qwest's proposed language, the physical location of the called and calling parties determine the nature of compensation.

RRD-19

EXHIBIT RRD 20

State Of Iowa

Level 3 Communications, LLC

DATA REQUEST

DATE: 07/25/2005

DOCKET NO: ARB-05-4

REQUEST NO: 02 - 138

WITNESS: Easton, Bill

REQUEST:

At page 27 of his testimony, Mr. Easton states, "Qwest has no obligation to permit Level 3 to commingle switched access traffic with. other types of traffic on the interconnection trunks created under the Agreement." Please admit the following: There is no technical reason that would prohibit Qwest from combining all types of traffic, as suggested by Level 3, on the interconnection trunks. If your response is anything less than an unqualified admission, identify: (a) each fact upon which you base your response; (b) each person having knowledge of those facts; and, (c) each document that supports your response.

RESPONSE:

From a network perspective, there is no technical reason that would prohibit Qwest from combining all types of traffic on interconnection trunks. From a billing perspective, however, Qwest is unable to appropriately bill for switched access traffic carried on interconnection trunks. See Easton Direct Testimony, pages 24-32.

RRD-20

EXHIBIT RRD 21

SS7 Quad Links

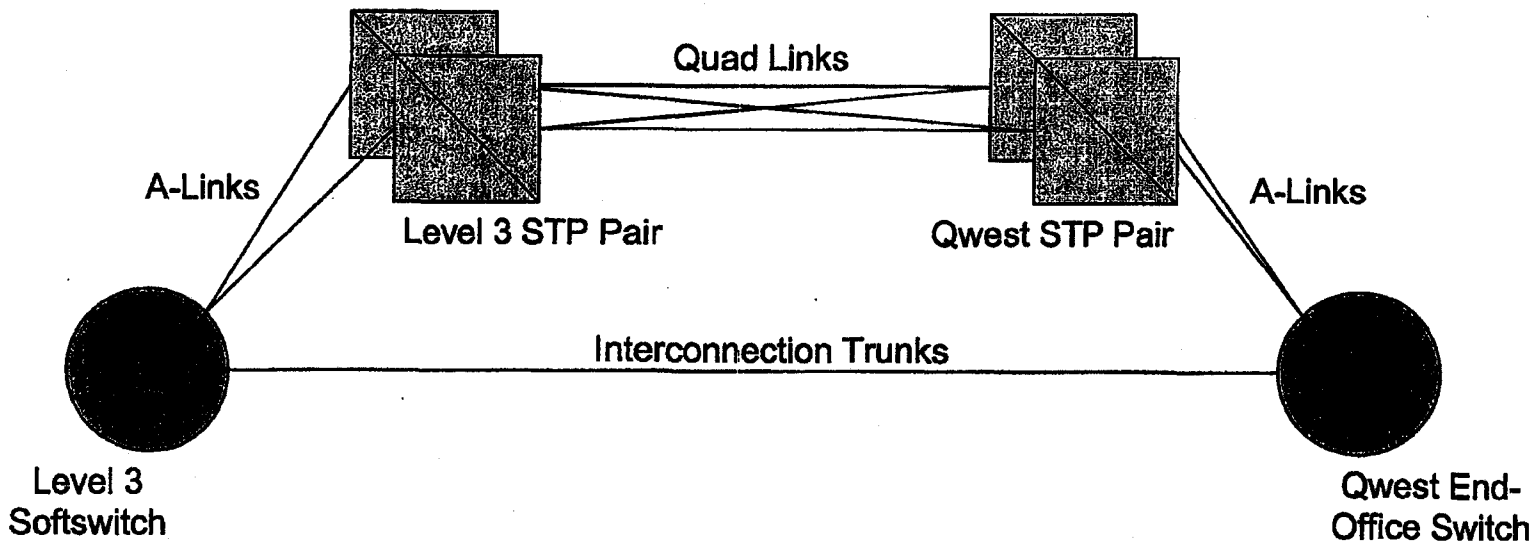


Figure 1

SS7 Signaling for local traffic

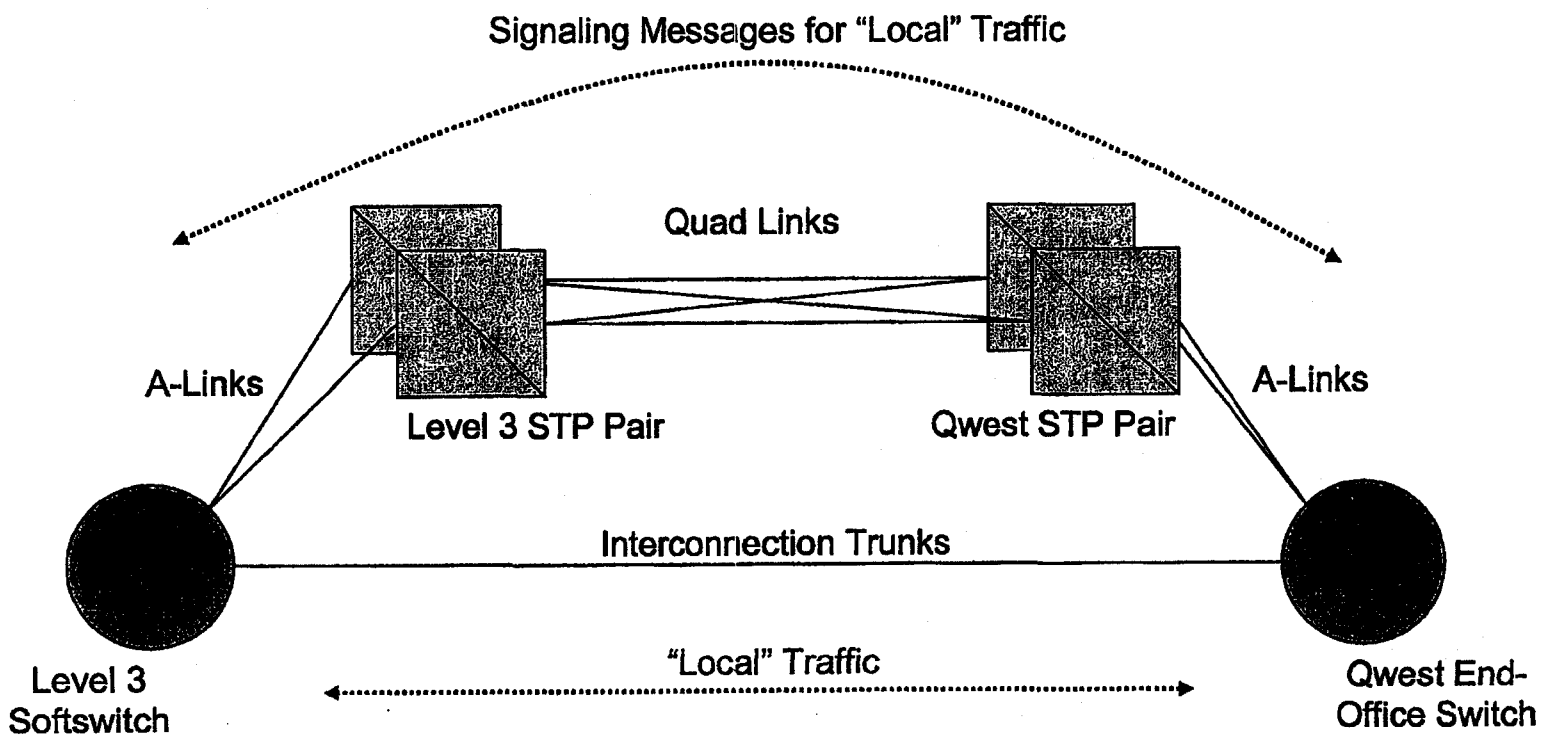


Figure 2

SS7 Signaling for IntraLATA toll traffic

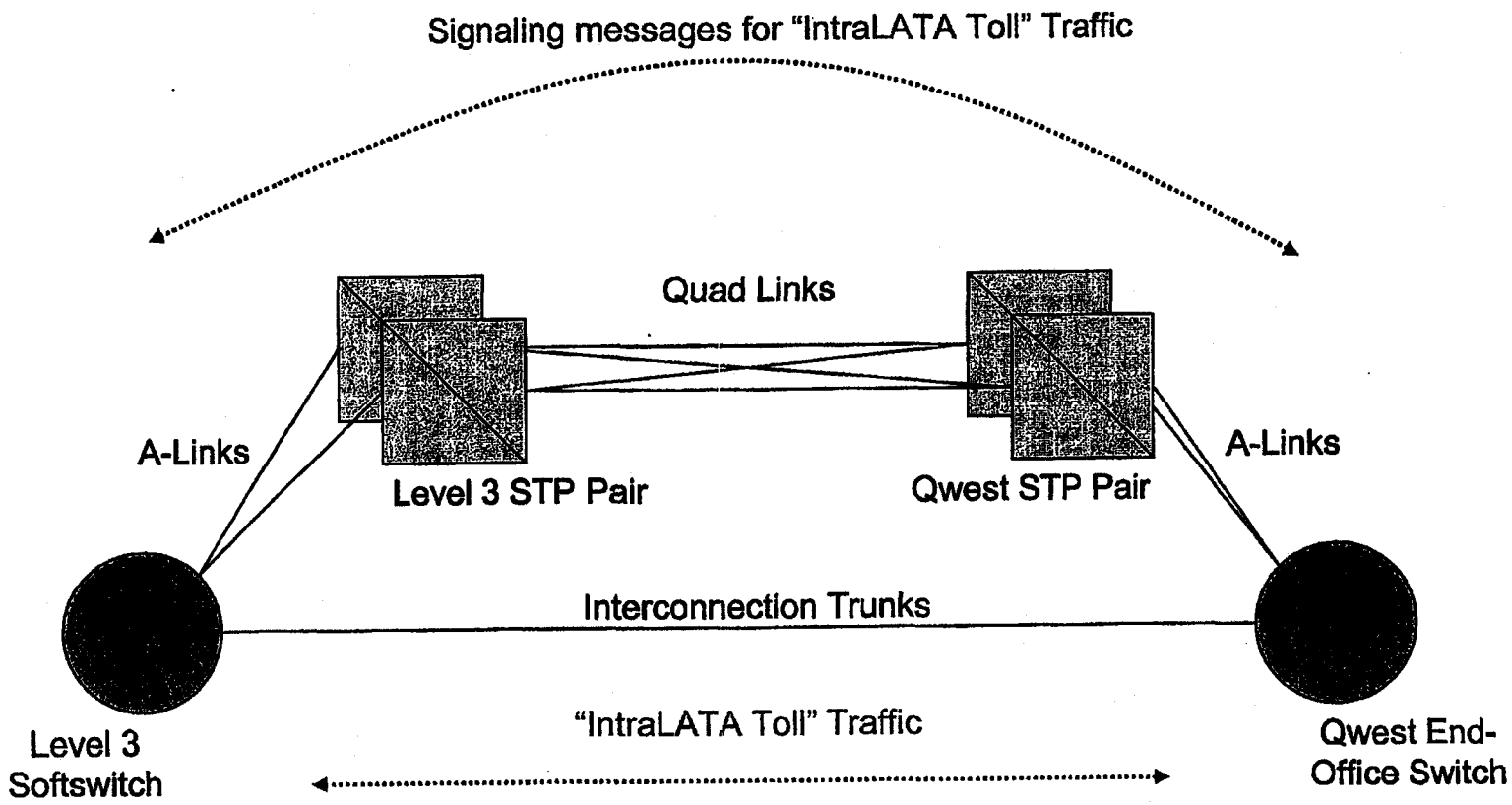


Figure 3

SS7 Signaling for InterLATA traffic

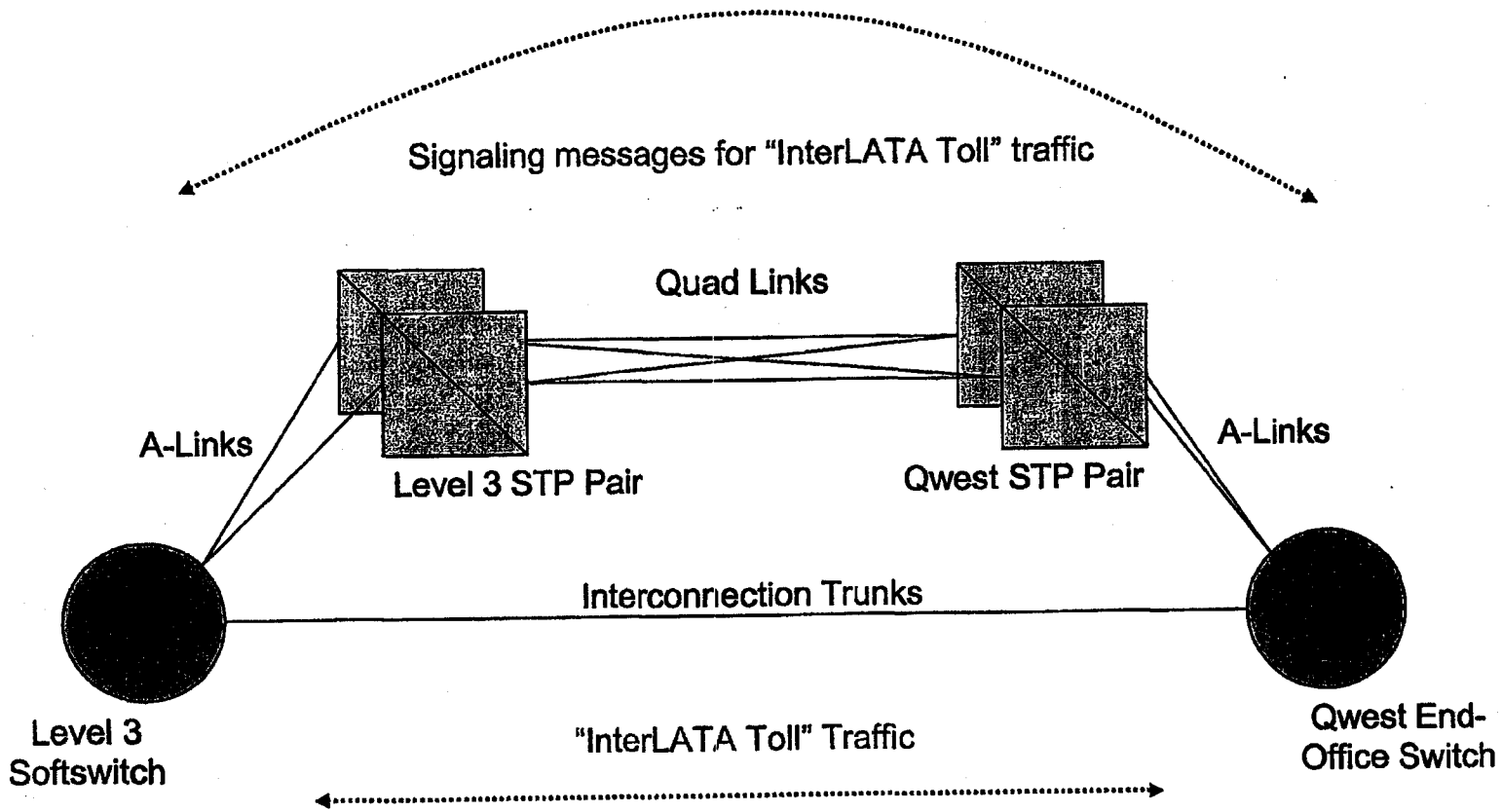


Figure 4

Level 3 Configuration

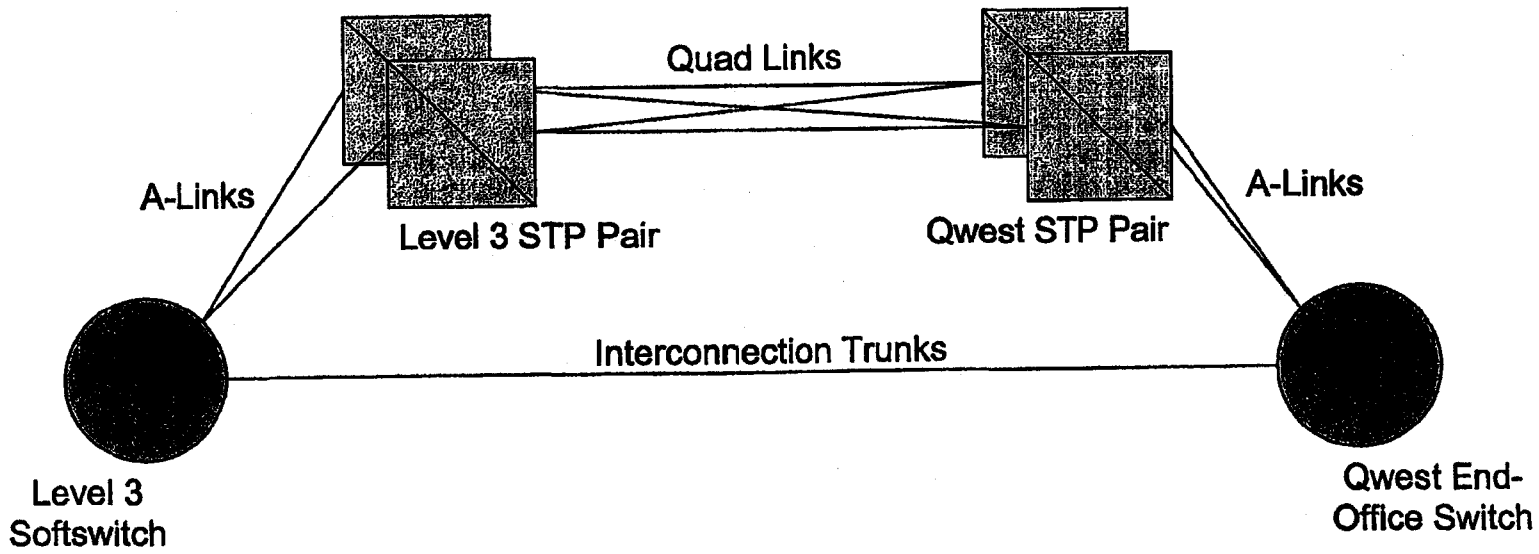


Figure 5

QWEST Configuration

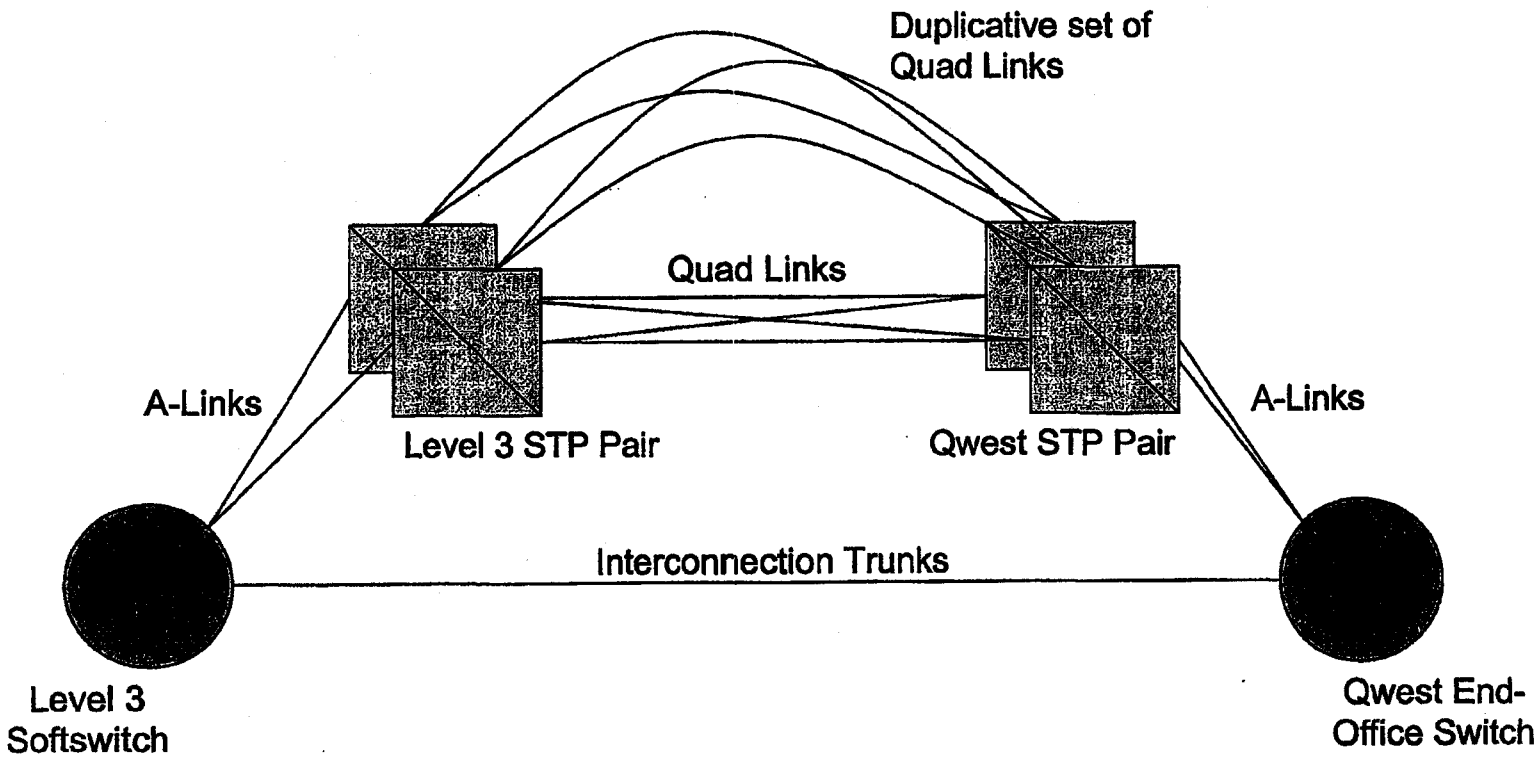


Figure 6

PENGAD-Bayonne, N.J.
EXHIBIT
L-3
admitted

EXHIBIT RRD 22

Qwest contends in their rebuttal testimony that Level 3 should be responsible for the costs of transporting traffic from local calling areas to the single physical POI in the LATA. In other words, Qwest contends that Level 3 should create a point of interconnection in each local calling area (LCA) or alternatively pay Qwest what it contends is an increased cost of transporting traffic originating on their network from LCAs to the single POI. Based upon FCC and federal circuit court precedent Level 3 views its right to have single POI per LATA requires each party to assume the costs of delivering its originating non-toll traffic to physical POI from wherever such traffic might originate on the originating party's network. Inherent in Qwest's claims in their rebuttal testimony is the assumption that Level 3 is unfairly shifting a material cost to Qwest.

The attached documentation examines whether such costs would be material where Level 3 establishes a single POI in Phoenix for the direct exchange of traffic within LATA 666. In order to accurately determine these costs, the attached documentation assumes that calls from Qwest customers to the Level 3 network would ride over existing Qwest DS-3 transport facilities to a POI that Level 3 establishes at Qwest's Phoenix tandem. Because a DS-3 transport facility contains 672 voice (DS-0) channels, it can carry approximately 29-million minutes of traffic per month. To be conservative, however, this model assumes a 50% fill factor, which would come out to 14.5-million minutes per month. As the workpapers attached as Exhibit RDD 22-1 indicate, the average additional increment of transport from LCAs throughout LATA 666 to a single POI between Level 3 and Qwest at the Phoenix tandem is 23.96 miles. Dividing Qwest's currently-tariffed switched access DS-3 mileage rate element of $15.90 by 14.5 million minutes and multiplying by the additional miles, the incremental per-minute cost is only $0.000013, *i.e.*, about 13 ten-thousandths of a cent.

EXHIBIT RRD 22-1

1,601,408	Access Lines in Phoenix LCA	
1,840,895	Access Lines in LATA 666	
09133	POI V-Coord	PHNXAZMA
06748	POI H-Coord	PHNXAZMA
11.51	Phoenix LCA Weighted Total Mileage	
23.96	LATA Weighted Total Mileage	
12.45	Mileage Difference	
$ 15.90	DS3 Per Mile Rate (Qwest AZ SGAT, Exhibit A)	
14,500,000	MOUs supported by a DS3 in a Month	
$ 0.000013	**Cost per MOU to extend past LCA to in LATA 666**	

EXHIBIT
L-4
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

DOCKET NO. T-03654A-05-0350
T-01051B-05-0350

IN THE MATTER OF LEVEL 3 COMMUNICATIONS, LLC'S PETITION FOR ARBITRATION PURSUANT TO SECTION 252(b) OF THE COMMUNICATIONS ACT OF 1934, AS AMENDED BY THE TELECOMMUNICATIONS ACT OF 1996, AND THE APPLICABLE STATE LAWS FOR RATES, TERMS, AND CONDITIONS OF INTERCONNECTION WITH QWEST CORPORATION.

DIRECT TESTIMONY OF TIMOTHY J GATES
ON BEHALF OF LEVEL 3 COMMUNICATIONS, LLC

July 15, 2005

TABLE OF CONTENTS

INTRODUCTION 1
Summary of Recommendations 6
Issue 1 -- Interconnection Architecture 9
Issue 2: Separate Trunking 25
Issue 3 – VNXX, ISP-Bound Traffic and RUF 31
VNXX for ISP-Bound Traffic 32
Relative Use Factor 46
Issue 4 – VoIP 52

INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Timothy J Gates. My business address is QSI Consulting, 819 Huntington Drive, Highlands Ranch, Colorado 80126.

Q. WHAT IS QSI CONSULTING, INC. AND WHAT IS YOUR POSITION WITH THE FIRM?

A. QSI Consulting, Inc. ("QSI") is a consulting firm specializing in traditional and non-traditional utility industries, econometric analysis and computer aided modeling. I currently serve as Senior Vice President.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I received a Bachelor of Science degree from Oregon State University and a Master of Management degree in Finance and Quantitative Methods from Willamette University's Atkinson Graduate School of Management. Since I received my Masters, I have taken additional graduate-level courses in statistics and econometrics. I have also attended numerous courses and seminars specific to the telecommunications industry, including both the NARUC Annual and NARUC Advanced Regulatory Studies Programs.

Prior to joining QSI, I was a Senior Executive Staff Member at MCI. I was employed by MCI and/or MCI/WorldCom for 15 years in various public policy positions. While at MCI I managed various functions, including tariffing, economic

and financial analysis, competitive analysis, witness training and MCI's use of external consultants. Prior to joining MCI, I was employed as a Telephone Rate Analyst in the Engineering Division at the Texas Public Utility Commission and earlier as an Economic Analyst at the Oregon Public Utility Commission. I also worked at the Bonneville Power Administration (United States Department of Energy) as a Financial Analyst doing total electric use forecasts while I attended graduate school. Prior to doing my graduate work, I worked for ten years as a reforestation forester in the Pacific Northwest for multinational and government organizations. Exhibit TJG-1, attached hereto to this testimony, is a summary of my work experience and education.

Q. HAVE YOU EVER TESTIFIED BEFORE THIS COMMISSION?

A. Yes. I have submitted testimony or comments in no less than eleven (11) docketed proceedings before the Commission in the last eighteen (18) years, most of which pertain to opening Arizona telecommunications markets to competition. I have also testified more than 200 times in 43 other states and filed comments with the FCC on various public policy issues ranging from costing, pricing, local entry and universal service to strategic planning, merger and network issues. As noted above, a list of proceedings in which I have filed testimony or provided comments is attached hereto as Exhibit TJG-1.

Q. ON WHOSE BEHALF WAS THIS TESTIMONY PREPARED?

A. This testimony was prepared on behalf of Level 3 Communications, LLC. ("Level 3"), a certificated competitive local exchange carrier ("CLEC") in Arizona.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address certain issues identified in the Level 3 Petition for Arbitration ("Petition").[1] Specifically, I will address: **Issue 1:** Interconnection Architecture; **Issue 2:** Separate Trunk Groups; **Issue 3:** Internet Service Provider ("ISP") Bound Traffic, Relative Use Formula ("RUF"), and Virtual NXX ("VNXX"); and **Issue 4:** Voice Over Internet Protocol ("VoIP"). Some of these disputes are primarily engineering issues, but I will be addressing them from an economic perspective.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. My testimony is organized by issue. The various discussions of the Tier 1 issues can be found on the following pages:

Issue 1 Interconnection Architecture.....Page 9

Issue 2 Separate Trunk Groups.....Page 25

Issue 3 ISP-Bound Traffic, VNXX and RUF.....Page 31

Issue 4 VoIP .....Page 52

Q. WHAT KEY ECONOMIC PRINCIPLES APPLY TO THE ISSUES IN THIS ARBITRATION?

A. All of my recommendations in this matter are based on a few simple but important economic principles:

---

[1] See, Petition of Level 3 Communications, LLC for Arbitration of an Interconnection Agreement with Qwest Corporation, pursuant to Section 252(B) of the Telecommunications Act of 1996; filed on May 13, 2005 ("Petition").

- ***First,*** neither party to an interconnection agreement should be able to impose unnecessary costs on the other. Obviously the process of interconnection itself entails certain costs, some of which fairly and properly fall on each party. But neither party should be able to insist on interconnection arrangements that are costly to the other party ***for no good reason.*** As a society, we want interconnection arrangements to be as efficient as possible; requiring needless expense is inconsistent with that goal.
- ***Second,*** interconnection arrangements should reflect the most efficient technical means for handling any particular situation, even if that that is not the technical arrangement currently in place for one of the parties. If a party can prevent an efficient arrangement simply because that party has not taken the time or effort to become efficient itself, the interconnection agreement will, in this respect, become a government-sanctioned transfer of wealth from the more efficient party to the less efficient party. A similar transfer of wealth will occur if the incumbent is allowed to force inefficiencies on the party with which it interconnects. Such inefficiencies do not make any economic sense and are not in the public interest.
- ***Third,*** it needs to be very clear that the incumbent's way of doing things is not necessarily the most efficient way of doing things. From an economic perspective the purpose of the 1996 Act is to enable and facilitate competition in traditionally monopolized telecommunications markets by removing economic and operational

impediments.[2] Further, with the rapid pace of technological advances in transport and switching technologies, no rational provider would adopt the traditional technologies and methods of operation of the incumbent. Facilitating and enabling competition, therefore, necessarily requires analyzing interconnection and intercarrier compensation issues from a forward-looking perspective in which the technology that is most efficient from a long-run economic cost perspective that may not include the technology currently in use by the incumbent. It follows that "because the incumbent does it that way" is not only *not* a good argument in favor of a particular resolution of an issue — in many cases it might be a *good* reason to reach the opposite conclusion.

- ***Fourth*** and finally, a recognition of the critical role that technological advance has played in contributing to economic welfare in the field of telecommunications justifies a preference for the result that favors, and enables, new technology. There is no dispute that communications technology is a decreasing cost industry. From an economic perspective, anyone who has a large sunk investment in a particular technical approach will rationally do whatever he can to prevent new technologies from making his technology obsolete. But this private interest in protecting existing investment from the forces of competition is directly contrary to the public interest in innovation and the deployment of new, more efficient

[2] In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; **FIRST REPORT AND ORDER;** CC Docket No. 96-98; Released August 8, 1996; at ¶3. Hereinafter referred to as the FCC's "*Local Competition Order.*"

technologies. From an economic perspective it is not only appropriate but necessary for decisions regarding interconnection disputes to take this factor into account.

Summary of Recommendations

Q. WITH THOSE PRINCIPLES IN MIND, PLEASE SUMMARIZE YOUR RECOMMENDATIONS ON THE KEY ISSUES SEPARATING QWEST AND LEVEL 3 IN THIS ARBITRATION.

A. **Issue 1** relates to interconnection architecture. Level 3 wants the agreement to clearly state that it is entitled to interconnect with Qwest at a single point of interconnection ("POI") in each LATA; to state that all types of traffic will be exchanged by means of that physical POI; and that each party will bear the costs of its facilities and arrangements on its side of the POI, including all costs of getting its own traffic to the POI. This is the correct result from an economic viewpoint.

Qwest's network architecture reflects a mix of technology and economic decisions that Qwest has made over many decades. That architecture does not remotely reflect what an efficient firm would construct today. It follows that Qwest should not be able to force Level 3 to spend money to duplicate or mirror Qwest's architecture — which is essentially what a multiple-POI requirement does. Rather, each carrier should be responsible for its own network, with the hand-off of traffic between the networks occurring at a single, efficient point. Of course, this does not preclude the parties from voluntarily agreeing to establish whatever additional POIs they may choose in particular cases. It does, however, prevent Qwest from imposing

transport and other responsibilities onto Level 3 that arise from Qwest's legacy network architecture.

Issue 2 relates to the use of trunk groups that carry different "types" of traffic on a combined basis to and from the POI. Level 3 wants all traffic exchanged between Qwest and Level 3 switches within a LATA to be carried on a single trunk group between its network and the POI. Qwest wants Level 3 to separate the traffic and route it over different trunk groups based on whether the traffic falls into arbitrary categories. There is no sound economic basis for Qwest's proposal. As Mr. Ducloo testifies, from a technical perspective, taking a large volume of traffic and breaking it up into a set of smaller trunk groups degrades trunking efficiency, so that a higher total number of trunks — and therefore trunk ports on switches — is needed. In economic terms, this results in a pure deadweight loss – *i.e.* costs are imposed with no corresponding economic or societal benefit.

Qwest says that it needs traffic on separate trunk groups in order to properly apply different billing rates to the different types of traffic, but that is simply not true. All that is required is to measure the total volume of traffic on a trunk group, and then apply factors (based on a periodic analysis of the traffic) indicating what proportion of the traffic is subject to reciprocal compensation, what proportion is subject to access charges, etc. These jurisdictional factors have been used for decades.

Issue 3 relates generally to whether ISP-bound traffic should be subject to the FCC-mandated rate of $0.0007 per minute even when the ISP's equipment is not in the

Qwest-determined originating local calling area of the end user dialing up the ISP. Level 3 maintains that this low rate should apply because the FCC has preempted the states as to intercarrier compensation for this traffic; Qwest apparently takes the view that if the ISP's equipment is not in the originating local calling area, not only should Qwest not pay Level 3 the $0.0007, but Level 3 should actually pay Qwest originating access charges.

Qwest also wants to impose its own network costs on Level 3 Qwest's position is simply wrong. When Qwest delivers an ISP-bound call originated by its customer to Level 3's POI for termination, Qwest's costs are not affected in the slightest by the location of the ISP's equipment. Moreover, Qwest's position would impose a penalty on Level 3 for working with ISP customers to efficiently configure their equipment in a manner to minimize both their and Level 3's costs, or, put another way, would create an incentive on Level 3 and its ISP customers to configure their equipment inefficiently simply in order to avoid regulatorily-imposed payments to Qwest. From an economic perspective, Qwest's position is totally irrational and discriminatory and should be rejected.

Issue 4 relates to the application of the $0.0007 rate to IP-enabled voice traffic, generally referred to as Voice over Internet Protocol or "VoIP", as well as purely "ISP-bound" traffic. This type of traffic should not be burdened with "access charges." Further, there is no technical or economic reason to treat VoIP differently from other ISP-bound traffic. Qwest wants to either exclude this type of traffic entirely from interconnection or impose special, higher charges for terminating that

traffic. Here again, Qwest's position makes no economic sense. Qwest does not incur any costs for terminating this VoIP traffic that differ from its costs in terminating traffic that Qwest would acknowledge is subject to the lower rate. From an economic viewpoint, it appears that Qwest is trying to ensure that growth of this new technology is inhibited by means of making it more costly than necessary to actually complete such calls. This is contrary to the public interest and to the efficient development and operation of the market. Unless there is some compelling legal or policy reason that ***requires*** the application of higher charges to this traffic — and I am certainly not aware of any — it makes sense to have the lower rate apply. I discuss each of these issues in more detail below.

Finally, I note that **Issue 5** in this matter is largely "legal" in nature, relating to the incorporation of certain terms by reference into the parties' interconnection agreement. I do not address that issue in this direct testimony.

Issue 1 -- Interconnection Architecture.

Q. PLEASE SUMMARIZE THE POSITIONS OF LEVEL 3 AND QWEST WITH REGARD TO INTERCONNECTION ARCHITECTURE.

A. Level 3 wants to exercise its right to establish a single POI for each LATA for the exchange of all types of traffic with Qwest, with each party responsible for the

1 facilities on its side of the POI.[3] Moreover, the only charges from one party to the
2 other for terminating traffic delivered to the POI would be the applicable per-minute
3 charges (reciprocal compensation or access). Qwest seeks to require the
4 establishment of multiple POIs in some circumstances and to improperly impose onto
5 Level 3 the cost of establishing and maintaining trunking arrangements put in place
6 for Qwest's own convenience.

7 **Q. PLEASE PROVIDE A GENERAL OVERVIEW OF THE ECONOMIC**
8 **RATIONALE FOR INTERCONNECTION PURSUANT TO THE ACT.**

9 A. Interconnection of networks is essential for the provision of telecommunications
10 services. If two networks are not interconnected, their subscribers cannot call each
11 other, which reduces the value of both networks. However, the economic effect of
12 denial of interconnection is not the same for each network. If a large network denies
13 interconnection to a smaller one, the impact on the large network may well be very
14 small (since few of its customers will want or need to contact customers of the other
15 network), while the denial of interconnection will be devastating to the smaller
16 network, since its few subscribers would not be able to call anyone other than others
17 on the same network. Where the dominant network became dominant as a result of
18 government policy (as is the case with the ILECs), it would be wrong to ignore the
19 potential that smaller networks might be harmed as a result of denial of

---

[3] As will be discussed later in this testimony, a POI is the point at which two networks interconnect for the exchange of traffic.

interconnection, or by inefficient interconnection, when government policy (the Telecom Act of 1996) now recognizes the importance of promoting competition.

Q. DID CONGRESS RECOGNIZE THE IMPORTANCE OF INTERCONNECTION TO THE DEVELOPMENT OF COMPETITION?

A. Yes. Congress recognized the importance of interconnection by requiring all telecommunications providers to interconnect, directly or indirectly, in Section 251(a)(1) of the Act. But Congress also recognized that the ILECs were and would remain the overwhelmingly largest networks and the dominant carriers in any given area for the foreseeable future (and, nearly 10 years after the passage of the Act, this remains true). This situation gives the ILECs powerful economic leverage over CLECs: the ILEC will be strongly motivated to use its control over access to its large base of subscribers either to out-and-out destroy its competitors (by not allowing interconnection at all) or hamper their growth by only permitting interconnection on expensive or inefficient terms. So, Congress — quite rationally from an economic standpoint — imposed special interconnection duties on ILECs.

Q. WHAT WERE THOSE SPECIAL INTERCONNECTION DUTIES IMPOSED ON ILECS?

A. In Section 251(c)(2) of the Act, ILECs are required to permit a "requesting telecommunications carrier" to physically interconnect its network with that of the ILEC for the exchange of traffic. This limits the ability of the ILEC to exploit its market power — arising from its control of access to the overwhelming majority of

subscribers in an area — to the detriment of competitors and consumers who would benefit from a choice in providers.

The FCC implemented this basic interconnection requirement with its specific rules to make clear that once interconnection is established for the exchange of "traditional" traffic — telephone exchange service and exchange access — other types of traffic can and should be exchanged using the same facilities. Specifically, at ¶ 995 of the *Local Competition Order,* the FCC said:

> [I]f a company provides both telecommunications and information services, it must be classified as a telecommunications carrier for purposes of section 251 … . [T]elecommunications carriers that have interconnected or gained access under sections 251(a)(1), 251(c)(2), or 251(c)(3), ***may offer information services through the same arrangement, so long as they are offering telecommunications services through the same arrangement as well.*** Under a contrary conclusion, a competitor would be precluded from offering information services in competition with the incumbent LEC under the same arrangement, thus increasing the transaction cost for the competitor. We find this to be contrary to the pro-competitive spirit of the 1996 Act. By rejecting this outcome we provide competitors the opportunity to compete effectively with the incumbent by offering a full range of services to end users without having to provide some services inefficiently through distinct facilities or agreements.[4]

This is plainly the correct policy from an economic perspective. Once the investment has been made to establish a facility interconnecting two networks, it makes no sense to limit the use of that facility to particular types of traffic, if there are other types of traffic that also need to be exchanged. Instead, the most efficient use should be made of whatever physical interconnection facilities are established. As the FCC itself has noted, the obligations identified in section 251 are necessary to support the FCC's

---

[4] See *Local Competition Order* at ¶ 995 (emphasis added).

goal of developing competition for the benefit of consumers and the economy.[5] Interconnection should be established on a cost-based, efficient basis that inhibits the ILEC's use of market power in anti-competitive ways to erect barriers to the establishment of an effectively competitive market.

Q. HOW DO THESE CONSIDERATIONS RELATE TO THE QUESTION OF USING A SINGLE POI PER LATA FOR INTERCONNECTION?

A. The use of a single POI per LATA is generally an efficient and effective way to exchange all traffic between an ILEC and a CLEC's network. Requiring the CLEC to establish multiple POIs boils down to making the CLEC duplicate some or all of the ILEC's preexisting network architecture. This will not be efficient, given that the CLEC may serve a different customer base than the incumbent and will likely use different (and more modern) technology. As a result, there is every reason to think that requiring the CLEC to mirror the ILEC's network architecture will be inefficient and not in the public interest. Therefore, all that should be required is a single POI interconnection architecture.

Q. PLEASE DEFINE A "POINT OF INTERCONNECTION" OR "POI."

A. In order for Level 3 and Qwest to exchange traffic between their respective customers, they must physically interconnect their networks. Per the FCC's rules, "interconnection" refers to the physical linking of two networks for the mutual exchange of traffic between customers subscribed to the respective

---

[5] Total Telecommunications Services, Inc and Atlas Telephone Company, Inc v. AT&T Corp, *Memorandum Opinion Order,* FCC 01-84, ¶ 25 (rel. Mar. 13, 2001).

networks.[6] A POI is simply the place where the two networks interconnect. It is also normally viewed as the financial and physical demarcation point that defines where one party's financial and operational obligations end and the other party's begin.

Q. WHO SHOULD BEAR THE COSTS OF INTERCONNECTION?

A. Basically, each provider should bear its portion of the cost. Each carrier's subscribers benefit from the ability to make calls to and/or receive calls from the other carrier's subscribers. Of course, each carrier is really only able to control the costs and activities on its own network, not on the other party's network. Therefore, it is sensible to require that each carrier be responsible for the costs of its own network, on its side of the POI. This is precisely what the FCC has required in Rule 51.703(b). This rule says that each carrier is fully responsible for the costs incurred in getting traffic from its network to the POI.[7]

Q. WHAT ARE THE ECONOMIC BENEFITS OF USING A SINGLE POI PER LATA?

A. The key benefit of a single POI architecture is that it allows the carrier delivering traffic to aggregate that traffic onto a large, efficient transmission facility to the other carrier, while at the same time it allows the carrier receiving the traffic to route that incoming traffic in whatever manner is most efficient based on its own traffic and

---

[6] See *Local Competition Order* at ¶ 176.

[7] 51.703(b) states, "A LEC may not assess charges on any other telecommunications carrier for telecommunications traffic that originates on the LEC's network."

network. Now, obviously, a large established carrier would benefit by being able to require its dependent competitor to deliver traffic to each and every switch in the established carrier's network, but from an overall societal point of view that would be terribly inefficient.

Q. HOW WOULD THE DOMINANT PROVIDER BENEFIT BY REQUIRING A CLEC TO DELIVER TRAFFIC TO EVERY SWITCH?

A. The most obvious benefit would be increasing the cost of the potential competitor and thereby disadvantaging that CLEC with respect to its entrance to, and operation in, the market. The FCC recognized the ILEC incentive to disadvantage CLECs. Specifically, the FCC noted:

> Given the incumbent LEC will be providing interconnection to its competitors pursuant to the purpose of the 1996 Act, the LEC has the incentive to discriminate against its competitors by providing them less favorable terms and conditions of interconnection than it provides itself.[8]

Requiring multiple POIs disadvantages the CLECs by increasing their costs. If the ILEC had the same customer and traffic characteristics as the CLEC it would also operate with a single POI. As such, requiring multiple POIs for CLECs when they are not justified is both anticompetitive and discriminatory, not to mention inefficient from both an economic and engineering perspective.

Q. YOU SAID THAT QWEST'S PROPOSAL WOULD INCREASE LEVEL 3'S COSTS. IS THAT COMMON IN ARBITRATIONS?

---

[8] See *Local Competition Order* at ¶ 218.

A. Yes, unfortunately such proposals are common. It is not in the best interest of Qwest to make it easy or cheap for Level 3 to interconnect. In fact, former Chairman Powell recognized the ILEC incentives when he stated, "At times, as I have observed, it is tempting to play the regulatory "game" in the way the incumbents often do. Begging for regulatory protection. Seeking regulatory favoritism that raises the costs of your competitors."[9]

Q. WHY WOULD IT BE INEFFICIENT TO REQUIRE A COMPETITOR TO INTERCONNECT AT MANY DIFFERENT POINTS ON THE ILEC'S NETWORK?

A. In economic terms, the location of the ILEC's switches reflects a series of choices made over a period of decades about the placement of multiple switches as compared to the use of transport from a smaller number of switches to reach subscribers. In the past when switching was relatively cheap and transmission was relatively expensive, it made sense to have lots of dispersed switches, with relatively short transport links between switches and to subscribers. Today, however – although the costs of both switching and transport have declined over time – switching is relatively expensive and transmission is relatively cheap, and it makes economic sense to have a small number of switches and relatively long transmission links to customers. So, even if it was perfectly efficient and rational for an ILEC to deploy a particular set of switches at various locations in the past, that does not remotely mean that it would be efficient

---

[9] Prepared Remarks of Michael K. Powell, Before the Association of Local Telecommunications Services; "Local Competition…CLECs in the Midst of an Explosion." Convention, Las Vegas, Nevada; December 2, 1998.

and rational for a CLEC to duplicate those choices today, given the technologies available today and the particular geographic distribution of the CLEC's customers.

Q. DOES THE ACT RECOGNIZE THESE DIFFERENCES BETWEEN ILECS AND CLECS?

A. Yes. The 1996 Act recognizes this by giving the CLEC, not the ILEC, the choice of where to interconnect as long as it is technically feasible. Section 251(c)(2) of the Act says that the CLEC can choose to exchange traffic at "any technically feasible point" within the ILEC's network. The criterion is technical feasibility, not the economic impact – albeit minimal - on the ILEC of having to carry its traffic to or from the technically feasible point selected.

Q. PLEASE EXPLAIN WHY IT MAKES SENSE FOR THE CLEC TO HAVE THE DISCRETION TO SELECT POIS AND NOT THE ILEC.

A. It makes perfect economic sense, in light of the principles discussed above, to give the choice of where to locate a POI or POIs to the CLEC and not the incumbent.[10] As noted above, the incumbent built out its network over many years in response to a wide variety of then existing economic, technological and demographic conditions. It would be irrational to assume that a competitor would find it economic to re-create anything like the same network today, even to serve the same customer base — and of course no competitor will have the kind of ubiquitous customer base as the ILEC.

---

[10] Indeed, footnote 464 of the *Local Competition Order* states, "Of course, requesting carriers have the right to select points of interconnection at which to exchange traffic with an incumbent LEC under section 251(c)(2)." Many orders since the *Local Competition Order* have supported the CLEC right to have only one POI per LATA.

It follows that, where it is economically reasonable for the CLEC to establish multiple POIs at multiple points on the ILEC's network, it will do so. In fact, Level 3 has a history of working closely with the ILECs in the establishment of additional POIs where traffic warrants such additional facilities. But where it does not choose to establish multiple POIs, that is solid evidence that there is no economic reason to require it to do so. To the contrary, forcing the CLEC to take account of the ILEC's network architecture choices — beyond requiring the POI to be "within" the ILEC's network — essentially forces the legacy network design choices and the inefficiencies of the ILEC onto the CLEC.

Q. AS YOU UNDERSTAND THE FCC'S RULES, DO ILECS SUCH AS QWEST HAVE THE RIGHT TO SELECT POIs?

A. No. As just noted, that right is limited to CLECs and does not extend to ILECs. The FCC explained that this is so because the ILEC "has the incentive to discriminate against its competitors by providing them less favorable terms and conditions of interconnection than it provides itself."[11] Eventually, of course, the hope is that CLEC networks become sufficiently robust such that the erstwhile dominant ILEC literally cannot afford to treat CLECs badly: "competition eventually will eliminate the ability of an incumbent local exchange carrier to use its control of bottleneck local facilities to impede free market competition."[12]

---

[11] See *Local Competition Order* at ¶ 218.

[12] Id. at ¶ 4.

Q. ARE YOU SAYING THAT A CLEC, SUCH AS LEVEL 3, WILL ALWAYS ESTABLISH A SINGLE POI IN A LATA?

A. No. The specifics will vary from case to case, but depending on the traffic mix and where the CLEC already has facilities, it may well make sense for the CLEC to establish more than one POI in a LATA. The point, however, is that the choice has to be with the CLEC, not the ILEC. This is because the ILEC will always want to force the CLEC to interconnect at points that are favorable to the ILEC and its legacy network. From my economic perspective, it is clear that the FCC was correct when it recognized the ILEC incentives and abilities at paragraph 10 of the *Local Competition Order* wherein it states in pertinent part:

> Because an incumbent LEC currently serves virtually all subscribers in its local serving area, an incumbent LEC has little economic incentive to assist new entrants in their efforts to secure a greater share of that market. An incumbent LEC also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's or by insisting on supracompetitive prices or other unreasonable conditions for terminating calls from the entrant's customers to the incumbent LEC's subscribers.

Q. HAS LEVEL 3 ESTABLISHED MORE THAN ONE POI PER LATA IN CERTAIN AREAS?

A. Yes. In the past, Level 3 has negotiated interconnection agreements that provide for additional POIs if demand or other circumstances merited such an investment. However, establishing additional POIs should be based on the need for such additional POIs, and on traffic patterns, not on Qwest's attempts to force inefficient costs onto Level 3. Moreover, just because Level 3 may have multiple POIs in

1 certain LATAs does not mean that Level 3 should be forced to add POIs in every
2 LATA at Qwest's discretion. To the contrary, from an economic perspective, the fact
3 that in some cases Level 3 has voluntarily established multiple POIs, but in other
4 cases has not, simply confirms that it is not efficient to require Level 3 to mirror
5 Qwest's network architecture. Rather, this fact demonstrates, on the basis of actual
6 market behavior, that Level 3 needs flexibility to establish one or more POIs where it
7 is efficient to do so. Qwest's proposal would not give Level 3 that flexibility.

8 The Commission should be extremely wary of establishing any obligations in
9 an interconnection agreement that would require Level 3 to deploy significant
10 amounts of capital in situations where Level 3 would not independently find doing so
11 in its interest. Since the implosion of the competitive telecommunications industry in
12 2000, it has become increasingly difficult for CLECs to attract capital; investors are
13 understandably wary of this sector. SBC has asserted in testimony filed in other state
14 arbitrations that more than 200 CLECs have ceased operations in SBC territory since
15 2000. I have no reason to think that the numbers would be any different for Qwest's
16 territory. Forcing CLECs to build or lease facilities, where margins are slim or
17 nonexistent, simply to require the CLEC to duplicate the ILEC's legacy network,
18 would only worsen CLEC prospects for attracting capital. Such a result would be
19 inefficient from both an economic and operational standpoint and has consequently
20 been regularly rejected by regulators as not in the public interest. The likely result of
21 such a requirement would not be more CLEC investment; it would be fewer CLECs

1 entering the market because the regulatorily-imposed capital requirements do not
2 justify the investment.

3 **Q. BUT REGARLESS OF THE FCC RULES AND ECONOMIC PRINCIPLES**
4 **DISCUSSED ABOVE, ISN'T IT UNFAIR TO QWEST TO GIVE LEVEL 3**
5 **THE CHOICE OF WHERE AND WHETHER TO ESTABLISH POIs?**

6 A. Not at all. As discussed elsewhere in my testimony, the ILEC is entitled to be paid
7 for the work it does in terminating traffic it receives from the CLEC at a single POI or
8 multiple POIs, just as the CLEC is entitled to compensation for terminating traffic its
9 receives from the ILEC. Although this point is sometimes obscured by the FCC's
10 $0.0007 rate for ISP-bound traffic, the FCC's rules for reciprocal compensation
11 provide for a higher level of payment if traffic has to be routed through an ILEC
12 tandem switch to get to the appropriate end office than if the traffic does not have to
13 go through the tandem switch.[13]

14 It is not "unfair" to Qwest to have to bear certain costs arising from its status
15 as an incumbent; or, rather, if it is "unfair," that "unfairness" is simply a means to

---

[13] Under the FCC's rules for compensation for ISP-bound calling, an ILEC may choose to avoid paying reciprocal compensation rates for calls its customers make to ISPs by opting into the FCC's special regime for such traffic. Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic, *Order on Remand and Report and Order,* 16 FCC Rcd 9151 (2001) at ¶¶ 89-93. If the ILEC does so it only has to pay $0.0007 per minute for calls its customers make to ISPs. But if the ILEC chooses to protect itself economically by electing to only ***pay*** $0.0007 per minute for ISP-bound traffic, it is obliged to accept all traffic from the competitor network for termination at the same $0.0007 rate, whether that traffic is delivered at a tandem, at an end office, or elsewhere. So it is probably true that Qwest would not get any higher payment from Level 3 for traffic Level 3 delivers at the tandem (or elsewhere) as compared to at the end office. But that is only because ***Qwest*** has chosen to protect itself from having to pay full reciprocal compensation rates for ISP-bound traffic by opting into the FCC's regime. From this perspective, giving up additional tandem-based compensation for inbound traffic is part of the price Qwest has chosen to pay in exchange for paying less for outbound ISP-bound traffic.

1 compensate for the fact that it was "unfair" to the public and to potential competitors
2 to allow Qwest to operate in a monopoly environment for many decades prior to the
3 enactment of the 1996 Act. A policy decision to promote competition, such as that
4 embodied in the 1996 Act, necessarily and inevitably means that certain advantages
5 that would otherwise accrue to the incumbent are being taken away.

6 Obviously an ILEC such as Qwest does not benefit from accommodating
7 Level 3 in its efforts to attract customers, and would like to charge Level 3 as much as
8 possible for whatever it is called upon to do. That is simply rational behavior by a
9 monopolist trying to hold on to its monopoly position. The reason interconnection
10 agreements are subject to statutory standards as to their content, and regulatory
11 oversight via the arbitration process, is precisely to allow regulators such as this
12 Commission to ***prevent*** the ILEC from refusing to reasonably accommodate CLECs
13 and to charge CLECs too much for what the ILEC has to do.

14 In this regard, a useful model to consider is what would happen if there were
15 three competing carriers in an area, each serving one third of the customer base, with
16 each carrier's customers equally valuable to the others. In this competitive situation,
17 if any one of the carriers remained unconnected, it would suffer terribly in the
18 marketplace, and so each carrier would be highly motivated to establish efficient
19 interconnection with the others, at some convenient point to all three. None of them
20 would be in a position to dictate to the others where interconnection would occur, and
21 none of them would be in a position to demand that the others pay for its own costs of
22 running its network. Obviously we do not have anything like this kind of competitive

1 situation today, but this hypothetical model provides a good reference point for what
2 makes sense in establishing interconnection arrangements under the 1996 Act.
3 Whenever Qwest makes a demand for multiple POIs, or for Level 3 to have to
4 pay for the privilege of terminating traffic originated by Qwest's customers, or for
5 Level 3 to split its traffic among different trunk groups based on Qwest's preferred
6 categorization when one trunk group would be more efficient, it is reasonable to ask
7 whether one of our three hypothetical equally-sized competitive carriers could ever
8 hope to get its two competitors to agree to such a thing. If not, then it's a pretty good
9 bet that Qwest isn't being reasonable but, instead, is trying to abuse its position as the
10 dominant provider of services.
11 **Q. PLEASE SUMMARIZE YOUR TESTIMONY REGARDING ESTABLISHING**
12 **A SINGLE POI.**
13 A. Competitors using new technology should not be limited by the historic decisions of
14 Qwest network planners who established switch locations and local calling areas
15 decades ago based upon the more limited technology available to them. Those
16 decisions, even if justifiable and supportable then, would certainly be different today
17 given the changes in technology. As such, forcing competitors to conform to the
18 ILEC's legacy network topology would be inconsistent with the goals of the *Local*
19 *Competition Order* and the Act. Rather, the promotion of efficient markets dictates
20 that a competitor such as Level 3 only be required to interconnect in a specific area
21 where its own assessment of traffic volumes, customer demand, and available
22 technology justify investment in facilities needed to reach that area. Level 3 should

not be required to extend its facilities to POIs unilaterally identified by Qwest; instead, Qwest is obligated to provide interconnection for Level 3 facilities at POIs which Level 3 properly determines best serve its network architecture and business plans. This concept actually allows Qwest to continue to design a network around its own needs, while allowing Level 3 to do the same thing.

Q. HOW SHOULD THE COMMISSION DECIDE THIS ISSUE?

A. The Commission should adopt Level 3's position which permits the flexibility of a single POI per LATA and reject Qwest's proposed language.

Q. WHAT TYPES OF TRAFFIC SHOULD BE EXCHANGED OVER THE PHYSICAL INTERCONNECTION FACILITIES ESTABLISHED AT ANY GIVEN POI?

A. Any and all traffic should be exchanged over the physical facilities at a given POI. It is economically irrational to require the establishment of different physical facilities for different "types" of traffic when one facility will handle the traffic efficiently.

Q. IS THIS CONCLUSION LIMITED TO WHETHER THE TRAFFIC FALLS INTO THE REGULATORY CATEGORY OF "TELECOMMUNICATIONS" OR NOT?

A. No. Once a POI has been established, Qwest should be required to use that POI (and should be required to permit Level 3 to use that POI) for the exchange of all types of traffic, whether they are classified as "telecommunications services," "information services," "local services," "access services," "251(b)(5) traffic," or anything else.

Assuming that transmitting a particular type of traffic over a given physical facility is technically feasible, it makes no economic sense to require the establishment of additional, duplicative facilities based on the regulatory classification of the traffic. As I noted above, the FCC recognized as much at the very inception of competition under the 1996 Act: once a physical interconnection arrangement has been established for any type of traffic for which such an arrangement is properly called for under the Act, the competitor is permitted to use that same physical arrangement to deliver other types of traffic as well, even including traffic for which interconnection might ***not*** be legally required.[14] The express policy behind this requirement is to prevent ILECs from forcing competitors to establish duplicative physical facilities for which there is no independent technical or economic need.

Issue 2: Separate Trunking

Q. PLEASE SUMMARIZE THE DISPUTE REGARDING SEPARATE TRUNKING.

A. Mr. DuCloo provides technical testimony on this point. Very briefly, a trunk is a single transmission path between switching systems, and a trunk "group" is a number of trunks similarly configured to act together to carry traffic between the same two end points. While more traffic requires more trunks in a trunk group, as Mr. DuCloo explains, the number of trunks needed to handle the traffic does not rise at the same rate as the traffic. It does not take twice as many trunks to handle twice as much

[14] See *Local Competition Order* at ¶ 995.

traffic; it takes fewer than twice as many. Traffic engineering is similar for telecommunications and road design. You can gain efficiencies in handling traffic by adding trunks (or lanes on a highway), but the relationship is not one to one. These efficiencies are important to controlling costs for both the ILEC and the CLEC.

Q. PLEASE EXPLAIN.

A. By efficiencies, I mean that the more traffic that can be included within a single trunk group, the less money it costs both carriers to handle the traffic. On the other hand, for any given volume of traffic between two switches, the more trunk groups into which the traffic is subdivided, the more expensive it becomes at the margin to carry it.

Given this, Level 3, understandably, wants to include all of the traffic exchanged between any given Qwest switch and Level 3 on a single trunk group. From an economic perspective, the technical "trunking efficiencies" noted above guarantee that a single large trunk group will be the most economically efficient solution. Qwest, however, wants to require that the traffic to and from a particular Qwest switch be routed over separate trunk groups based not on the technical characteristics of the traffic, but rather on the regulatory classification of the traffic. This makes no economic sense, and Qwest's position should be rejected.

Adding insult to injury, not only does Qwest want Level 3 to artificially divide traffic into different trunk groups based on economically irrelevant (for these purposes) regulatory classifications, Qwest wants to ***charge*** Level 3 for establishing these separate trunk groups. Qwest is entirely responsible for the cost of getting its

traffic to Level 3; and, while Level 3 is entirely responsible for paying Qwest intercarrier compensation for terminating Level 3-originated traffic, that compensation is set on a per-minute basis and does not entail Qwest charging Level 3 for setting up trunks at all.

Q. HOW WOULD LEVEL 3 BE DISADVANTAGED BY THE LANGUAGE PROPOSED BY QWEST?

A. As Mr. DuCloo explains at page 22 of his testimony, under Qwest's proposal, Level 3 will have to spend more on switch programming, trunk administration, trunk ports on switches, digital cross-connect systems, and fiber optic terminals; and at some point will have to spend more on switches themselves. There is no operational or economic justification for imposing these costs on CLECs. Their only purpose would be to disadvantage CLECs vis-a-vis Qwest. In fact, Qwest's proposal would increase its own costs as well. I urge the Commission to reject Qwest's proposal.

Q. ARE THERE OPERATIONAL PROBLEMS ASSOCIATED WITH LEVEL 3 USING TRUNKS TO CARRY BOTH LOCAL AND TOLL TRAFFIC?

A. No. As Mr. DuCloo explains, there are no technical or operational problems associated with Level 3's proposal to combine different "types" of traffic on a single trunk group that would be avoided by separate trunks. Requiring separate trunk groups, as suggested by Qwest, results in a deadweight economic loss to society, as I noted earlier.

Q. IS THERE ANY JUSTIFICATION FOR REQUIRING SEPARATE TRUNKS FOR DIFFERENT TYPES OF TRAFFIC?

A. No. Qwest says that traffic subject to different billing rates should be put onto separate trunks in order to keep the billing straight, but that makes no sense from an economic perspective either.

Q. WHY NOT?

A. There is a simple, inexpensive way to keep the billing straight that does not entail the significant network inefficiencies of separate trunking. All that is needed is for the parties to periodically sample the traffic going between them and develop factors for how much is subject to reciprocal compensation, how much to access charges, etc. Then all that is required is to keep track of the total minutes exchanged in a given month, apply the factors, and determine the appropriate bill. Mr. DuCloo addresses this in his testimony as well.

Q. HAVE THESE FACTORS BEEN USED IN THE PAST FOR BILILNG PURPOSES?

A. Yes. These billing factors have been used for decades with great success.

Q. HAVE OTHER REGULATORS ACCEPTED THE FACT THAT BILLING CAN BE ACCOMPLISHED USING FACTORS RATHER THAN INEFFICIENT SEPARATE TRUNKS?

A. Yes. The use of factors to allocate traffic on a particular facility or trunk into different billing categories has a long history in the telecommunications business going back at least as far as the early 1980s, when "other common carriers" used

business lines to connect to the network to provide their competing long distance services. Eventually they became known as "Feature Group A" lines, and the industry agreed to certain assumptions regarding total traffic on such lines and on how much of the traffic was interstate versus intrastate.

Since the passage of the 96 Act, commissions have approved the use of jurisdictional factors that allows the efficient use of interconnection trunks. For instance, the Michigan Public Service Commission found in a Sprint/Ameritech arbitration proceeding that:

> It appears to the Commission that economic entry into the market requires that Sprint by permitted to use its existing trunks for *all* traffic whenever feasible.[15] (emphasis added) In Texas, the Commission there ordered Verizon to allow Sprint to carry local, intrastate intraLATA and intrastate interLATA traffic on the same trunks.[16] Other states, such as Indiana, have required the use of PLUs (percentage local usage) or other allocators (e.g., PIUs – percent interstate usage) to reflect the jurisdiction of traffic on such trunks for billing purposes.[17]

Q. OTHER THAN BILLING, IS THERE ANY OTHER ARGUMENT FOR QWEST TO REQUIRE SEPARATE TRUNKING ARRANGEMENTS FOR DIFFERENT TYPES OF TRAFFIC?

---

[15] In the Matter of the Application of Sprint Communications Company, L.P. for Arbitration to Establish an Interconnection Agreement with Ameritech Michigan, MPSC Case No. U-11203, Order Approving Arbitration Agreement with Modifications, Jan 15, 1997.

[16] Texas Public Utility Commission; *In the Matter of the Petition of Sprint for Arbitration with Verizon*; Docket No. 24306; Final Order Modifying Arbitration Award and Approving Interconnection Agreement; dated February 17, 2004.

[17] Indiana Utility Regulatory Commission; In the Matter of AT&T Petition for Arbitration with Indiana Bell Telephone Company; Cause No. 40571-INT-03; November 20, 2000. Further, in its Revised Response to Level 3 Request No. 22 in the Illinois arbitration, SBC Illinois stated, "SBC Illinois uses a PLU methodology to distinguish local versus intraLATA toll in cases where the CLEC does not provide calling party number (CPN) information."

A. No, in fact, Qwest would be disadvantaging itself by requiring CLECs to separate traffic of different types onto multiple trunk groups rather than carrying all traffic on a single trunk group. To put it simply, not only is it most efficient for Level 3 to carry all traffic on a single trunk group, it is efficient from Qwest's perspective as well. ***Both*** parties would have to pay extra for trunk ports, switch capacity, etc., if traffic is artificially forced onto separate trunk groups.

Q. WHY WOULD QWEST INSIST ON CONTRACT LANGUAGE THAT WOULD BE DISADVANTAGEOUS TO ITSELF?

A. I cannot answer for Qwest, but it would appear that Qwest is willing to absorb costs in the short term in order to disadvantage or drive its competitors from the marketplace.[18] This is, of course, totally contrary to the public interest in the development of efficient competitive telecommunications networks, but might well be rational from the perspective of Qwest's private interest. This is particularly true if, as Mr. DuCloo notes, Qwest has excess capacity of trunk ports on its switches. If Qwest has already invested in an excessive number of trunk ports (perhaps due to overly aggressive estimates of growth of traffic on its network), then it will, in effect, have trunk ports "lying around" unused. This would create a situation in which the short-run cost to Qwest of requiring inefficient trunking is relatively small, while the cost to Level 3 of using inefficient trunking would be large. Qwest could therefore

[18] Given the fragile nature of the competitive telecommunications industry, it would take very little to eliminate facilities-based competition. As such, any decision that disadvantages competitors as compared to Qwest will further diminish the chances for effective competition.

engage in the classic monopolist's strategy of increasing competitors' costs at very little cost to itself by seeking and obtaining a regulatory obligation on competitors to use inefficient trunking. This is entirely rational behavior from Qwest's perspective of trying to maximize shareholder wealth through protection of its monopoly, but of course it makes no sense at all from the perspective of the public interest.

Q. WHAT ARE YOUR RECOMMENDATIONS REGARDING THIS ISSUE?

A. I recommend that the Commission adopt Level 3's position and allow it to carry different types of traffic on one trunk group. Qwest's proposed language would result in the inefficient use of the network, additional costs to all carriers, and give an unfair competitive advantage to Qwest.

Issue 3 – VNXX, ISP-Bound Traffic and RUF

Q. PLEASE INTRODUCE THESE ISSUES.

A. The ISP-bound traffic and virtual NXX issues are very much intertwined. By way of background, ISPs providing dial-up service receive local calls from their customers in order to allow those customers to access the Internet. ISPs do not market and do not expect to receive long distance calls from customers seeking to connect to the Internet because long distance calls have traditionally had per-minute charges associated with them.[19] Thus, making long-distance calls to ISPs is uneconomical for end users. For

[19] Of course it is technically possible for a person to use a long-distance call to connect to his or her ISP. The point of this testimony is that experience has shown that consumers are not willing to pay long-distance charges to access the Internet.

the ISP, this means that it is important for end users to be able to reach the ISP by means of a local call.

It is, however, terribly inefficient for an ISP to establish a physical presence in each and every ILEC-established local calling area where the ISP might have customers or where it might want to attract customers. Therefore, it is quite common — I would go so far as to call it the standard operating arrangement in the industry — for ISPs to obtain telephone numbers from CLECs or ILECs that are "local" to areas where they have customers. Because the CLECs or ILECs are providing local numbers for the ISPs, where they have no local presence, the service is referred to as virtual NXX or VNXX service, and is in essence identical to the FX service offered by Qwest, at least from a end user customer perspective.

VNXX for ISP-Bound Traffic

Q. DOES THE ISP HAVE FACILITIES IN EACH OF THE LOCAL CALLING AREAS WHERE THEY HAVE LOCAL NUMBERS?

A. Not usually. As noted above, it would be very expensive for the ISPs to put their own facilities in the many thousands of local calling areas around the country. Instead, they purchase local services from carriers like Qwest and Level 3 in those areas where they have or desire customers.

Q. DOES LEVEL 3 PROVIDE SUCH A SERVICE TO ISPS? AND, IF SO, WHAT IS IT CALLED?

A. Yes. Level 3 sells its direct inward dial ("DID") service to ISPs where it is a certificated CLEC. This service arrangement is usually referred to as "virtual NXX,"

or "VNXX" service. It is just another name for the functionality that has been provided for decades by ILECs under the name "foreign exchange," or "FX" service. Mr. DuCloo describes FX service in his testimony.

Q. DOES QWEST PROVIDE FX SERVICE IN ARIZONA?

A. Yes. In response to Level 3 Request No. 024, Qwest indicated that it does offer FX service in Arizona. Qwest also provided its Arizona tariff for FX service. (See Exhibit TJG-2)

Q. PLEASE EXPLAIN THE MARKET FOR VNXX SERVICE.

A. Where ISPs, such as Earthlink or AOL, want to offer dial-up Internet access, they contact an ILEC or CLEC to purchase local service. In Level 3's situation, the ISP subscribes to Level 3's DID service and is assigned local numbers from the Level 3 switch in the exchanges where dial-up service is being offered and where Level 3 offers service. The ISPs advise their customers of the numbers that the ISPs have been assigned, who then program the numbers into their computers for accessing the Internet. The customers' computers then dial these local numbers; the calls are routed from the ILEC to Level 3 in exactly the same manner as other local calls; and Level 3 delivers the calls to the ISP being called.

Q. PLEASE EXPLAIN HOW THE VNXX CALLS ARE ROUTED IN THE NETWORK.

A. Actually, "VNXX" calls are routed in exactly the same way as non-VNXX local calls. There is nothing special about these calls.

Q. PLEASE EXPLAIN.

A. Assume that Level 3 has a single POI in a LATA located at a Qwest tandem in Phoenix. Assume further that Level 3 serves all of its ISPs who have customers in that LATA from a single switch that Level 3 uses to serve the entire LATA. Now assume that a customer of one of those ISPs, who takes telephone exchange service from Qwest, uses his or her computer's modem to connect to the ISP. In that case, Qwest's switch will receive the number as dialed by its customer, recognize it as a Level 3 number, and direct the call to a trunk group that connects to Level 3's POI. Level 3 then accepts the traffic and routes it to its switch and then on to its ISP customer. This is the same manner in which all local calls are routed.

Q. IF THIS CALL HANDLING IS THE SAME AS ALL LOCAL CALLS THEN WHAT IS THE DISPUTE BETWEEN QWEST AND LEVEL 3?

A. *If* the Qwest customer making the call happens to be in the same Qwest retail originating local calling area as the ISP's equipment, then Qwest would say that the call is "local" and there is no dispute. On the other hand, if the ISP's gear is in a different Qwest retail local calling area, Qwest says that the call is a "VNXX" call and is not local.

Q. DOES THE LOCATION OF THE ISP EQUIPMENT IMPACT THE JURISDICTION OF THE CALL, THE HANDLING OF THE CALL, OR THE COST OF GETTING THE CALL TO THE POI?

A. No. Qwest's responsibilities, and costs, are absolutely identical regardless of the location of the ISP equipment. In each case, a locally dialed call is routed to the POI for termination. All that Qwest does is determine that the dialed telephone number is

a Level 3 number and ship the call off to Level 3 on an appropriate trunk group. And, what Level 3 does is the same in both cases: it recognizes the incoming traffic as bound for one of its customers and sends the traffic on to that customer. The only difference is whether the ISP's gear receiving the call is at the end of a short circuit (close to Level 3's switch, and thus often not in the calling party's retail local calling area) or a longer circuit (away from Level 3's switch, and thus, possibly, in the calling party's retail local calling area). Regardless of the distance, it is Level 3's responsibility to complete the call. In other words, it is Level 3 and **not** Qwest that is providing the Level 3 ISP customer with the FX-like functionality. It makes no economic sense whatsoever to make any distinction in Qwest's financial obligations depending on whether Level 3 uses a long or short circuit to connect its customers to its switch.

As the discussion above (I hope) illustrates, from an economic perspective, Qwest's proposal is completely arbitrary and irrational. There is simply no sound economic basis upon which to distinguish these two situations.

Q. IS THE ROUTING OF VNXX CALLS DIFFERENT IN ANY WAY FROM THE ROUTING OF ANY OTHER LOCAL CALL?

A. No. As described above, and by Mr. DuCloo, it is exactly the same.

Q. DO THE PHYSICAL END POINTS OF THE CALLS HAVE ANY IMPACT ON QWEST'S RESPONSIBILITIES OR COSTS?

A. No. In response to Level 3 Request No. 023, Qwest stated in pertinent part, "The costs Qwest incurs do not vary based upon the physical location of the Level 3 customer." (See Exhibit TJG-3)

Q. IS QWEST'S PROPOSAL CONSISTENT WITH THE HISTORICAL HANDLING OF LOCALLY-DIALED CALLS?

A. No. As Mr. DuCloo explains, Qwest is actually trying to invent a new way to classify calls that has no operational or historical basis in the telephone network. Qwest's proposal is to rate and distinguish traffic based on the actual physical location of customers as opposed to the numbers the customers are assigned. This flies in the face of the way calls have been rated since the establishment of the PSTN. What's really going on here is that it is more efficient for a new competitor like Level 3 to offer FX-like services to ISPs than it is for Qwest to do so, leading to ISPs "voting with their feet" and moving their business to competitors like Level 3. Qwest is essentially trying to recoup its losses in the marketplace, and to punish its competitors, for being willing and able to offer a more efficient serving arrangement to the ISPs.

Q. DID QWEST AGREE IN DISCOVERY THAT CALLS ARE NOT RATED BASED ON THE ACTUAL PHYSICAL LOCATION OF CUSTOMERS?

A. Yes. In response to Level 3 Request No. 082, Qwest said that, "The telephone numbers that Qwest uses for call routing purposes are assigned to its end users based on NPA-NXXs associated with specific LCAs in the state." (See Exhibit TJG-4) This is consistent with Level 3's position in this proceeding. Qwest also noted

correctly that "...switches do not route calls based on specific addresses stored within the switches...." (Id.) Indeed, neither Qwest's tariffs nor its switches contain customer specific location information that would be required to implement Qwest's proposal in this proceeding.

Q. ARE THERE NEGATIVE CONSEQUENCES ASSOCIATED WITH QWEST'S PROPOSAL TO TREAT VNXX CALLS AS SOMETHING OTHER THAN LOCAL CALLS?

A. Yes. Qwest's proposal would impose substantial additional costs on ISPs. If Level 3 is required to pay access charges for calls it receives to its ISP customers who use VNXX services (or is denied intercarrier compensation for such calls), Level 3's cost of doing business will increase and it may have to raise its rates to its ISP customers. In order to deal with those rate increases, the ISP customers will either have to deploy otherwise unnecessary and inefficient facilities so that their equipment actually is in the calling parties' local calling areas (thereby relieving Level 3 of some of the economic burdens caused by Qwest's proposal), or keep the efficient equipment arrangement but be subject to the higher costs. Either way, the ISPs may have to raise rates to their customers, and, particularly for some areas, may simply decline to provide dial-up access, in order to minimize costs. This is plainly contrary to the public interest.

Moreover, Qwest's proposal to not pay reciprocal compensation on calls to customers who are not "physically located" in the same local exchange, or require toll treatment for such calls, would give Qwest yet another competitive advantage over

CLECs. Qwest's proposal would improperly benefit its own affiliated ISPs, increase the cost of Internet access and reduce competition to the detriment of consumers and the economy.[20] Qwest's proposal would put in jeopardy any competition for ISP dial-up services, thereby depriving consumers of choice in what has become an indispensable information, education and economic tool, especially for those still significant portions of customers who cannot yet afford the costs of dedicated broadband connections to the Internet.

Q. ARE THERE ANY ADDITIONAL NEGATIVE CONSEQUENCES ASSOCIATED WITH QWEST'S PROPOSAL?

A. Yes. In developing its multi-billion dollar nationwide network, Level 3 did not simply duplicate the network of Qwest and other ILECs. Instead, Level 3 has deployed a softswitch technology-based network which is much less capital intensive, and much more location insensitive than traditional ILEC networks. Using this advanced technology, Level 3's network is designed to operate most efficiently by serving large regions of the country on an integrated basis. It is indifferent to ILEC legacy central office boundaries. By taking advantage of such technology shifts, competitors such as Level 3 can participate in the natural progression of market development, perhaps even "pulling even" with ILECs who, by virtue of the presence of their existing networks have incredible inherent market advantages. Qwest's

---

[20] Qwest has yet to answer Level 3 Request No. 004. In other states, however, such as Colorado, Qwest has two affiliates offering Internet access services: Qwest Communications Corporation and Qwest !nterprise America, Inc. I would expect those affiliates offer services in Arizona as well.

proposal would therefore at least partially negate efficiencies Level 3 designed into its network — which efficiencies Level 3 continues to invest in, as demonstrated by its recent decision to upgrade its network with optical equipment capable of carrying up to 400 gigabits per second over a single fiber strand. These efficiencies are of no use to anyone, however, if Qwest is permitted to burden Level 3 with such arbitrary and unwarranted interconnection and compensation provisions.

Q. DOES LEVEL 3'S SERVICE PROVIDE THE SAME FUNCTIONALITY FOR CONSUMERS AS THE FX AND FX-TYPE SERVICES PROVIDED BY QWEST AND OTHER ILECS?

A. Yes. As Mr. DuCloo explains, functionally Level 3's VNXX service is identical to, and competes with, traditional ILEC FX services. In trying to obtain a regulatory ruling that would make VNXX service uneconomic for the major class of consumers who use that service (ISPs), Qwest is trying to enlist the regulators in an effort to stamp out this type of competition. This Commission should reject that invitation.

Q. DOES QWEST OFFER ISPS A SERVICE SIMILAR TO VNXX SERVICE?

A. Yes. In addition to standard offerings such as FX, Qwest offers its "Wholesale Dial" service. According to its online literature, Qwest's service "provides a secure, reliable, cost-effective dial-up network infrastructure solution for ISPs. The service provides the ISPs' end users with seamless dial-up functionality that remains transparent." One of the benefits touted by Qwest is the availability of "local access

telephone numbers."[21] So, as you can see, this is yet another example of services provided to ISPs for the purpose of providing local dial-up access for consumers in areas where the ISPs may or may not have a physical presence.

Q. YOU NOTED EARLIER THAT QWEST WANTS TO IMPOSE ACCESS CHARGES ON LEVEL 3 IN CONNECTION WITH CALLS THAT QWEST CUSTOMERS MAKE TO ISPS SERVED VIA VNXX NUMBERS. IS THERE ANY ECONOMIC RATIONALE FOR DOING SO?

A. No. FX/VNXX service is a "local" service to which access charges do not apply. Instead, the VNXX calls are ISP-bound calls that terminate (from Qwest's perspective) at the POI. Neither Qwest nor Level 3 imposes any sort of toll charge in connection with calls to VNXX numbers. As a result, there is no economic basis on which any sort of "access charge" could be imposed.

Q. DOES QWEST APPLY ACCESS CHARGES TO ITS FX OR FX-TYPE SERVICES?

A. No. A quick review of the relevant tariffs shows that access charges are not applied to any portion of the ILEC FX service. Further, in response to Level 3 Request No. 1-029, Qwest indicated that, calls to and from end users in the local calling area where the FX customer purchases an FX connection are treated as local. (See Attachment TG-1) As such, Qwest does not apply access charges to its FX service.

---

[21] See "Qwest Wholesale Dial" in its Product Catalog. http://www.qwest.com/pcat

Q. WHAT WOULD BE THE ECONOMIC EFFECT OF ADOPTING QWEST'S PROPOSAL?

A. It would simply eliminate an efficient and technologically advanced means of providing dial-up Internet access to customers throughout the State of Arizona. This would obviously be counter to the public interest.

Q. IS DIAL-UP ACCESS TO THE INTERNET IMPORTANT TO THE STATE OF ARIZONA?

A. Yes. Dial-up for Internet access is the universal service equivalent of a primary line for voice service. In other words, not all people can afford broadband access to the Internet, but most people have a single line with which they can access the Internet over a dial-up connection. Dial-up access is especially important where broadband connections are not yet available.

Rural residents report less broadband availability than their counterparts in suburban or urban areas of the United States. In fact, a Pew Internet & American Life Project study found that rural residents were two to five times more likely to not have broadband availability than urban and suburban residents.[22] Pew research associate Peter Bell also noted:

> While gaps in income and age appear to be partly responsible, the difficulty of getting Internet access remains a big barrier for many rural users. Major Internet service providers accounted for about 40 percent of use among rural residents, whose most frequent reason for choosing an ISP was that it was the only one available to them. In

[22] See Pew Internet & American Life Project; Rural Areas and the Internet; "Rural American's Internet Use Has Grown, But They Continue to Lag Behind Others"; February 17, 2004.

> contrast, online users in metropolitan areas usually chose from a range of providers by seeking the best deal.[23]

Although dial-up Internet access is critical in rural areas, as a percentage of the total, it is decreasing. While DSL and cable broadband connections showed large increases, from 2001 to 2003 dial-up Internet access actually decreased by 12.7 percent. The same study showed that in rural areas 74.7 percent of the Internet connections were dial-up connections.[24]

Q. IS DIAL-UP STILL AN IMPORTANT SOURCE OF INTERNET ACCESS IN ARIZONA?

A, Yes. Although broadband is growing dramatically and dial-up is becoming a smaller proportion of the total, in Phoenix as of December of 2004, 31.6 percent of Internet access was by dial-up and 68.4 percent was by broadband.[25]

Q. DESPITE THE DOWNWARD TREND IN DIAL-UP ACCESS, DO YOU THINK IT WILL REMAIN AN IMPORTANT TYPE OF INTERNET ACCESS?

A. Yes. As I mentioned above, dial-up is critical to rural consumers where broadband is not always available and competitive alternatives are limited. Garry Betty, Earthlink's chief executive stated,

---

[23] See, TodaysSeniorsNetwork.com; "Rural use of Internet continue to lag, Costs, access remain barriers, new data shows."; June 7, 2005.

[24] See, "A Nation Online: Entering the Broadband Age"; U.S. Department of Commerce, Economics and Statistics Administration, National Telecommunications and Information Administration; September, 2004, at 5, 13.

[25] See, ClickZ Stats; Global Broadband Tops 123M, September 17, 2004. (http://www.clickz.com/stats/sectors/broadband/article.php/3409671)

> Despite compelling reasons to switch to broadband, dial-up lines will always have a place in American homes. Customers in rural areas where broadband is not available will continue to log on via a dial-up connection; other people may prefer the simplicity of dial-up.[26]

For those citizens of Arizona that can't either afford or don't have available to them broadband connectivity, dial-up internet provides access to one of – if not the - cornerstone of economic and community vitality. The ability to apply for jobs, get weather reports, crop price forecasts on a real time basis, participate in educational endeavors, gain community information on safety and health, and communicate via e-mail to friends and businesses, form the very fabric of commerce in the world we live in. Non-participation or lack of access, simply stated, sentences portions of our society to second class status. Without vigorous competition to ensure low cost dial-up Internet access, both the citizens of Arizona and the State itself will suffer irreparable harm as a significant segment of the population is unable to compete economically, advance educationally and establish community ties.

Q. IT IS SOMETIMES SUGGESTED BY ILECS THAT INDUSTRY NUMBERING GUIDELINES PROHIBIT THE ASSIGNMENT OF NUMBERS FOR FX OR SIMILAR SERVICES. IS THAT TRUE?

A. No. In fact Section 2.14 of the Numbering Guidelines specifically identifies FX services as being eligible for number assignment:

> 2.14 It is assumed from a wireline perspective that CO Codes/blocks allocated to a wireline service provider are to be utilized to provide

[26] See, The New York Times, "Dial-up Internet Going the Way of Rotary Phones"; June 21, 2005.

> service to a customer's premise physically located in the same rate center that the CO codes/blocks are assigned. **Exceptions exist, for example tariffed services such as with the exception of foreign exchange service.** [27] (emphasis added)

If it were improper or a violation of the guidelines to use virtual NXX codes then all ILECs currently providing FX and FX-type services would be in violation today.

Q. WHAT ARE NXX NUMBER BLOCKS?

A. NXX number blocks are groups of numbers assigned to carriers for distribution to customers. The blocks contain 10,000 numbers, or where number pooling is in place, blocks of 1,000 numbers. The NXX codes are the fourth through sixth digits of a ten-digit telephone number. For instance, the NXX code for my telephone number (303-424-4433) is 424. These codes are used as rate center identifiers for rating and routing of calls.

Q. MUST A CARRIER BE LOCAL NUMBER PORTABILITY ("LNP") CAPABLE TO PARTICIPATE IN NUMBER POOLING?

A. Yes. Level 3 is LNP capable and able to participate in number pooling. Further, Level 3 normally utilizes only numbers in the 4,000 block within a 10,000 block. By not contaminating the numbers in the other thousand blocks, should jeopardy occur and pooling be imposed, Level 3 could return numbers to the administrator.

---

[27] Alliance for Telecommunications Industry Solutions; Sponsor of Industry Numbering Committee; Central Code (NXX) Assignment Guidelines; Released May 28, 2004.; hereinafter referred to as "Numbering Guidelines".

Q. HOW ARE CARRIERS ASSIGNED AN NXX CODE?

A. Carriers who meet the criteria for the assignment of central office codes, like Level 3 and Qwest, request and are assigned blocks of telephone numbers by the numbering administrator.[28] The numbers are loaded into Level 3's switch and referenced in the Local Exchange Routing Guide ("LERG") for routing by other carriers. Level 3 then assigns numbers from within those blocks to its customers as requested.

Q. HOW IS THE RATING OF CALLS IMPACTED BY THE NUMBERS ASSIGNED TO CUSTOMERS?

A. Standard industry practice and procedure provides that each NXX code is associated with a particular rate center within a local calling area. A single rate center may have more than one NXX code, but each code is assigned to one and only one rate center. This uniquely identifies the end office switch serving the NXX code, so that each carrier that is routing a call knows which end office switch to send the call to.

Q. IS IT UNCOMMON FOR NXX CODES TO BE ASSIGNED TO CUSTOMERS WHO ARE NOT PHYSICALLY LOCATED IN THE LOCAL CALLING AREA WHERE THE NXX IS "HOMED" OR ASSIGNED?

A. No. It is also not uncommon for the "routing" point for an NXX code to differ from the "rating" point for the same code. In other words, although an NXX may be rated or homed to a specific end office switch, the routing information in the LERG may specify that calls to that NXX code be routed to a different wire center, for instance, a tandem.

---

[28] See Numbering Guidelines, Section 4.0.

Q. IS IT IMPROPER OR AGAINST ANY RULES FOR CLECS TO PROVIDE NUMBERS TO THEIR CUSTOMERS?

A. No, not at all. In fact, as noted above, carriers must request numbers in order to provide service in a particular exchange. Based on my review of Level 3's practices, Level 3 utilizes and abides by the Numbering Guidelines.[29] In fact, Level 3 has developed its own LNP solution and has established stringent guidelines that result in very efficient use of numbering resources.

Q. PLEASE SUMMARIZE YOUR TESTIMONY ON VNXX TRAFFIC.

A. VNXX traffic is a competitive response to ILEC FX service and is the primary service used by ISPs to provide local dialing for their customers. Calls to VNXX numbers are local calls in every sense of the phrase and do not impose any additional costs or responsibilities on Qwest. The CLEC assignment of numbers in exchanges where they serve is completely consistent with the industry numbering guidelines. Qwest's proposal to impose access charges on these calls should be rejected.

Relative Use Factor

Q. PLEASE DESCRIBE THE DISPUTE BETWEEN THE PARTIES REGARDING THE "RELATIVE USE FACTOR," OR "RUF."

A. Prior to recent FCC rulings, it was commonplace for some CLECs to call on the ILEC to establish a transmission facility (often called an "entrance facility") running from some point on the ILEC's network to the CLEC's switch location. In its original

---

[29] The Numbering Guidelines require compliance as a condition of receiving numbers.

ruling regarding interconnection under the 1996 Act,[30] the FCC addressed the question of rates applicable to "transmission facilities that are dedicated to the transmission of traffic ***between*** two networks" (emphasis added), and ruled that the cost should be apportioned in accordance with relative use of the facility. In cases where a CLEC obtained an entrance facility from the ILEC to connect to the CLEC's switch, the effect of this rule (which remains embodied in 47 CFR § 51.709(b)) was to reduce the ILEC's charges for the entrance facility based on what proportion of the traffic going over it was ILEC-originated, as opposed to CLEC-originated. This is, generally speaking, what the "RUF" is intended to capture (although Qwest's particular language does not properly track the FCC's rule). The FCC's *Triennial Review Remand Order,* however, held that entrance facilities were no longer to be provided — at least not at TELRIC-based rates — for these purposes.[31] This suggests that even Qwest would not think that the RUF would apply between the parties.

Q. WOULD A RUF APPLY FOR FACILITIES ON EITHER SIDE OF THE POI?

A. No. RUF logically applies in the case of a "meet point" interconnection at a POI. The very definition of a "meet point" or POI-based form of interconnection is that each party bears its own costs for the facilities needed to get to the POI. The FCC in the *Local Competition Order* specifically recognized that each party is responsible for its own costs in getting to a meet point, and expressly found that it is perfectly reasonable to require the ILEC to build out new facilities at its own expense, at least

---

30 See *Local Competition Order* at ¶ 1062.

31 See FCC **Order on Remand** in WC Docket No. 04-313, CC Docket No. 01-338, Released February 4, 2004 at ¶ 137.

to some extent, to accommodate a meet point interconnection.[32] Level 3 seeks to interconnect with Qwest at a single meet-point POI per LATA. It follows that there will not ***be*** any situations in which there are "transmission facilities that are dedicated to the transmission of traffic between" Level 3 and Qwest. Instead, the two networks will ***meet*** at a particular ***point,*** with no inter-network facilities, per se, at all. Each party will be responsible for the costs of its own facilities up to the POI, which will constitute a "meet point" as the FCC used that term.

Q. WHAT IS LEVEL 3'S CONCERN WITH THE RUF?

A. Level 3 is concerned that Qwest is trying to use the "RUF" concept to avoid the economic logic of establishing a meet-point POI. Level 3 is concerned, specifically, that even with a single POI, Qwest will try to assign some of the costs of its own network on its side of the POI to Level 3, based in some way on the amounts of traffic that Qwest sends Level 3 and vice versa. That is unreasonable in and of itself.

Q. ASSUMING THERE WAS A REASON TO MAKE A RUF CALCULATION, DOES QWEST PUT FORTH A CORRECT ALGORITHM?

A. No. Qwest gets it wrong on the calculation, by seeking to unfairly and unreasonably exclude the substantial volumes of ISP-bound traffic it sends to Level 3 from calculating the "relative use" of the facilities it uses to deliver that traffic. As described below, there is no basis for excluding ISP-bound traffic from any RUF calculation that might be appropriate in light of the way Level 3 and Qwest actually interconnect.

---

[32] See *Local Competition Order* at ¶ 553.

Q. WHY IS THIS A CONTENTIOUS ISSUE?

A. It is contentious because of the traffic flows. A significant amount of the traffic exchanged between Qwest and Level 3 will be calls originated by Qwest customers for termination to Level 3 customers. The Level 3 customers tend to be ISPs. The one-way nature of this type of traffic means that Qwest would pay for the vast majority of the interconnection facilities assuming such a calculation were to be made.

Q. IS THAT UNFAIR?

A. No. To the contrary, it is completely consistent with the economic rule of cost-causation and the accounting concept of matching. It is the Qwest customers who are originating the calls to the Level 3 customers. As such, Qwest is originating the traffic and causing the use and consequent costs of the network facilities. As such, the cost causer – Qwest – should pay for the costs. Further, Qwest customers are paying local rates to make those calls. As such, Qwest has both the revenues and the costs associated with the calls. To foist those costs on Level 3 while only Qwest enjoys the revenues would violate the matching principle. It would be unfair and inequitable for Qwest to impose those costs on Level 3.

Perhaps an example would help clarify the situation. In some cities, people must pay tolls to travel on roads. The tolls supposedly pay for the cost of the roads. Now suppose a new amusement park is opened and traffic on the toll roads to that amusement park is significant. Forcing the amusement park to pay the tolls associated with the peoples' choice to visit the amusement park would be unfair.

After all, the people decided to visit the amusement park and they decided to drive to the facility. It was their decision to go and as such, they are the cost-causers with respect to the tolls.

Forcing Level 3 to pay for the Qwest facilities when Qwest originates the vast majority if not all of the calls, would be like charging the amusement park for the cost of getting the people to the park. Qwest customers purchase Qwest local service and decide to make the calls and it is Qwest's obligation – under the reciprocal compensation rules – to pay Level 3 for the cost of terminating those calls. Rule 51.703(b) specifically states that "a LEC may not assess charges on any other telecommunications carrier for local telecommunications traffic that originates on the LEC's network."[33]

Note in this regard that one of the effects of consumer demand for dial-up Internet access was to lead consumers to purchase additional telephone lines into their homes in order to allow the consumers to use dial-up Internet access while also engaging in voice telephone conversations on the other line. These second lines have almost exclusively been provided by the ILEC. As time goes on, of course, more and more people are switching from dial-up to broadband Internet access, which will simultaneously (from Qwest's perspective) lower second line revenues, increase DSL revenues, and lower intercarrier compensation payments for ISP-bound traffic. But looking only at the dial-up segment, Qwest has received and will continue to receive substantial additional revenues, in the form of second line revenues, in connection

[33] 47 C.F.R., §51,703(b).

with its customers' calls to ISPs. Given this, any claim that Qwest has been or is being economically harmed by delivering ISP-bound calls without receiving access charges, or any claim that Qwest cannot afford to pay intercarrier compensation with respect to such calls, must therefore be viewed with great skepticism.

Q. IS QWEST'S POSITION CONSISTENT WITH 47 C.F.R. § 51.703(B)?

A. No. This rule is very straightforward and simple in its reading. Qwest may not assess charges on any other telecommunications carrier for telecommunications traffic that originates on its network. Qwest's position is just the opposite. Qwest wants to exclude the ISP-bound traffic, even though it is originated by its own customers, from the relative use calculation. There is simply no support for that position and it is clearly contrary to the existing rules and the economic principles of cost causation.

Q. IS THERE ANY OTHER REASON TO EXCLUDE ISP-BOUND TRAFFIC FROM THE RELATIVE USE CALCULATION?

A. No. Again, it is clear that RUF calculations are not appropriate in a POI situation. But if for some reason the Commission were to decide to apply the RUF, ISP traffic must be included in the calculation. Simply because the calls are directed to an ISP does not change the fact that these are locally dialed telecommunications calls that traverse the circuit switched network in exactly the same fashion as any other local call. The effect of Qwest's mathematical manipulation of the formula is to transfer to Level 3 a large portion of the costs of delivering Qwest-originated traffic. There is simply no economic, engineering or public policy reason to exclude the traffic from the calculation.

Q. PLEASE SUMMARIZE YOUR POSITION ON THE RELATIVE USE CALCULATION.

A. There is no need to apply a RUF calculation on each side of the POI since each party is responsible for getting its traffic to the POI. Nevertheless, if a RUF calculation is made it must include the ISP-bound traffic. The traffic is telecommunications traffic originated by Qwest customers and, as such, is the responsibility of Qwest.

Issue 4 – VoIP

Q. PLEASE INTRODUCE THIS ISSUE AND THE DISPUTE BETWEEN LEVEL 3 AND QWEST.

A. IP-Enabled services, such as IP-enabled voice traffic -- the most common form of which is referred to as voice over Internet protocol or VoIP -- are becoming more common as they offer significant efficiencies from both an economic and network operations perspective. Qwest and Level 3 disagree on the proper regulatory treatment of these services. To the extent that this Commission has regulatory authority over any aspect of these services, Level 3 urges the Commission take a "hands-off" approach to regulation. As described below, VoIP constitutes a form of "enhanced" or "information" service, like Internet access, so that under existing FCC rules it would not be appropriate for such services to be subject to access charges in any event. But putting aside that point, from an economic perspective it would be a mistake to subject VoIP services to traditional access charges, whether or not it would be permissible to do so from a legal or regulatory perspective. In contrast, Qwest

encourages the Commission to treat these services like traditional long distance calls, and impose access charges on this traffic, unless the VoIP provider's point of presence is in the same local calling area as the called party.

Q. WHAT IS VOICE OVER INTERNET PROTOCOL OR "VOIP" TRAFFIC?

A. Mr. DuCloo discusses this in more detail. Briefly, VoIP services involve using the same network that carries Internet traffic to carry packetized voice communications. Because voice data packets can be dispersed among other types of Internet traffic, such as e-mail messages, web pages, Instant Messaging conversations, music downloads from iTunes or similar services, etc., VoIP doesn't use as much bandwidth as in a circuit-switched network. This makes phone calls essentially as cheap to transmit as e-mail.[34] Indeed, VoIP is a good example of the convergence of computers, telephones and television into a single and more efficient integrated information environment.

Q. PLEASE DESCRIBE THE FUNDAMENTAL DIFFERENCES BETWEEN VOIP CALLS AND TYPICAL PSTN CALLS.

A. In the simplest of terms, VoIP is an information service application that uses the Internet backbone and discrete data packets to deliver real-time voice communications. Rather than voice information being transmitted across the traditional circuits of the PSTN, VoIP uses the Internet Protocol, and the Internet backbone, or some other private IP network. In addition to this difference in

---

[34] See Comments of VON Coalition in CC Docket No. 01-92, WC Dockets No. 02-361, 03-211, 03-266, 04-36; filed August 19, 2004, at page 2.

transmission, VoIP calling, being IP-enabled, facilitates the introduction and integration all sorts of potential capabilities not present with PSTN circuit switched calls.[35] From a regulatory perspective the IP-based capabilities distinguish VoIP – an information service – from basic circuit-switched telecommunications services.

Q. IS QWEST OFFERING VOIP SERVICES TODAY?

A. Yes. On December 8, 2004, Qwest announced that its VoIP service (Qwest OneFlex™) is available to business customers nationwide. In that same press release Qwest noted that if offers a range of VoIP solutions including OneFlex™ Integrated Access, OneFlex™ Hosted VoIP and IP Centrex Prime.[36]

Q. HAS QWEST ADMITTED IN DISCOVERY THAT ITS ONEFLEX™ SERVICE PROVIDES UP TO FIVE VIRTUAL NUMBERS THAT ALLOW PEOPLE TO CALL THE SUBSCRIBER ON A LOCAL INSTEAD OF A TOLL BASIS?

A. Yes. I have attached Qwest's Response to Level 3 Request No. 1-063S1, in which Qwest admits that Qwest Communications Corporation ("QCC") does offer OneFlex™ with virtual numbers. (See Exhibit TJG-5)

Q. HOW DOES QWEST PRICE ITS QWEST ONEFLEX SERVICE?

A. In Response to Level 3 Request No. 1-65, Qwest admitted that QCC offers its VoIP service for approximately $30 per month, plus 5 cents per minute for long-distance

---

[35] For instance, when you have a missed call on Vonage service, you get an email detailing the call information (time, calling number, etc.). The features and capabilities of VoIP services are many and expanding.

[36] See Qwest Press Release entitled, "Qwest Launches Expanded Nationwide VoIP Service for Businesses." Released December 8, 2004.

calls with a $2.99 month fee. The offering also includes a full range of features, including caller ID and voice mail. (See Exhibit TJG-6)

ILECs and CLECs alike are offering VoIP and other IP-Enabled services. For instance, and as discussed above, Qwest also offers its "Wholesale Dial" service. Qwest's service provides many of the same benefits and features as Level 3's service, including local dialing for dial-up Internet access. In fact, Qwest notes that its service provides a dial-up network architecture "...covering 85 percent of the U.S. population with a local call."[37]

Q. IS THERE ANY ECONOMIC JUSTIFICATION FOR TREATING LEVEL 3'S SERVICES FOR ESPs THAT PROVIDE VOIP APPLICATIONS LIKE TYPICAL TELEPHONE SERVICES?

A. No. As noted by the FCC in its IP-Enabled Services NPRM, "Dial-up, or narrowband, Internet access utilizes the same PSTN infrastructure that telephone subscribers use to place traditional circuit-switched voice calls."[38] Broadband VoIP services do not impose any additional costs on the ILECs or their network either. As such, treating these services as if they were traditional long distance telecommunications services, and imposing their associated access charges, would allow ILECs to over-recover their network costs. At the same time, imposing these high call origination and termination rates on this new technology would suppress the use of the new services and, effectively, tax a new, efficient competitor for the benefit

---

[37] See <http://www.qwest.com/wholesale/pcat/wholesaledial.html>.

[38] See FCC Notice of Proposed Rulemaking; WC Docket No. 04-36; Released March 10, 2004, FN 32.

of the legacy, incumbent operator. Such a result would not only constitute a windfall for ILECs, but it would impede the natural efficiency of the market by unnecessarily burdening the development of new services. There is simply no economic justification for treating IP-Enabled services as if they were traditional services.

Q. IS THERE PRECEDENT IN THE TELEPHONE INDUSTRY FOR ADOPTING POLICIES THAT INSULATE NASCENT, INNOVATIVE TECHNOLOGIES FROM BEARING AN UNDUE PORTION OF THE COSTS OF THE LEGACY NETWORK?

A. Yes. In fact, the FCC has repeatedly recognized that encouraging innovation in this industry requires exempting nascent technologies and industry segments from providing support to the legacy network. One of the earliest examples of this policy dates from the 1970s and early 1980s. Historically, all customer premises equipment ("CPE") had been provided to customers by the regulated telephone company as part of telephone service. In the 1960s the FCC ruled (in a famous case called *Carterphone*) that the Bell System could not forbid the attachment of "foreign" devices that did not harm the network.[39] In response, the Bell System grudgingly permitted non-Bell CPE to be connected to the network, but imposed charges for "protective connecting arrangements" on that new CPE. The FCC responded to this anticompetitive tactic by establishing network interconnection specifications that

[39] The Carterphone case started as a court case and the FCC (Docket Nos. 16942, 17073) then found the AT&T tariff to be unreasonable in that it prohibited the use of interconnection devices (the Carterphone) which did not adversely affect the telephone system. See FCC 68-661, Adopted June 26, 1968. I do not cite to this case for legal reasons, but only to show that unreasonable interconnection requirements are not in the public interest.

applied to all CPE – Bell and non-Bell alike – and then by requiring the Bell System to provide all CPE on an unregulated basis, through a separate subsidiary. This allowed the then-nascent competitive CPE market to develop without having to pay a "legacy network tax" to the Bell System.

Another example of protecting nascent technologies and services from supporting the legacy network is the "ESP Exemption" from access charges. In 1983 the FCC ruled that even though interstate traffic to and from enhanced service providers could, logically, be subject to per-minute access charges, those charges would not apply. The explicit basis for this ruling was that this new market should not be required to pay rates that include subsidies for the traditional network. As noted above, I believe that this exemption directly applies to VoIP; but whether it literally applies or not, the ***policy*** behind it applies with full force here. VoIP is a nascent technology. There are many different forms of these services. Different entities are pursuing different technical and business strategies with respect to it. While we should not ask legacy network operators like Qwest to provide explicit subsidies to these new services, neither should we ask the new services to provide subsidies to legacy network operators like Qwest. It follows, from an economic perspective, that VoIP services should be permitted to interconnect with the legacy network at low, cost-based rates (either Section 251(b)(5) reciprocal compensation

rates or the FCC-established $0.0007 rate), rather than requiring those services to pay subsidy-laden access charges.[40]

Still another example is the FCC's treatment of interconnection between landline LECs and wireless carriers. The FCC has long sought to encourage the growth of wireless services, free from the traditional constraints of the legacy network. In the *Local Competition Order* the FCC advanced this goal by establishing extremely broad geographic regions within which traffic exchanged between landline and wireless carriers would be viewed as "local" and thus not subject to access charges.[41] As a result of this ruling, a call from a wireless customer in western Wisconsin to a landline customer in North Dakota (or vice versa) is "local," as is a call from southern Arizona to southeastern South Dakota (or vice versa). Even though these calls would be treated as "long distance" calls within the traditional landline network, the wireless carrier only has to pay the low reciprocal compensation rate when it is the originating carrier, and the wireless carrier gets paid that rate — as opposed to paying originating access charges — when it is the terminating carrier. This decision to exempt large amounts of "long distance" wireless traffic from traditional access charges is, from an economic perspective, an explicit policy decision by the FCC — and one of which I completely approve — to exempt this

---

[40] Even though interstate access rates have been declining over time, they are still well above what an economist would view as a cost-based rate. To be cost-based from an economic perspective requires that a rate be in line with forward-looking incremental cost. Intercarrier compensation rates developed in connection with Section 251(b)(5) and ISP-bound calling reflect this approach; traditional access rates do not.

[41] *Local Compeittion Order* at ¶ 1036. *See also* 47 C.F.R. § 51.701(b)(2).

relatively new, growing technology from having to pay subsidies to support the legacy network.

Just as sound regulatory policy exempted ESPs and wireless carriers from having to support the legacy network by paying access charges, so too sound regulatory policy supports exempting VoIP services from them as well. Again, this is true from an economic perspective independent of whether, as a legal or regulatory matter, the so-called "ESP Exemption" literally applies to VoIP traffic.

Q. HAS THE FCC STATED ANY POSITIONS REGARDING THE ECONOMIC IMPACT OF REGULATING VOIP?

A. Yes. Former FCC Chairman Powell maintained this support for leaving IP-Enabled services unregulated at the FCC Forum on Voice over Internet Protocol in Washington, where he was quoted as saying, "As one who believes unflinchingly in maintaining an Internet free from government regulation, I believe that IP-based services such as VoIP should evolve in a regulation-free zone." Then Chairman Powell went on to caution regulators with respect to IP-Enabled services' regulation, saying "No regulator, either federal or state, should tread into this area without an absolutely compelling justification for doing so."[42] Chairman Powell's statements were part of a daylong forum to address business, technical, service feature and policy issues. Consistent with those statements, Chairman Powell stated,

---

[42] Opening Remarks of FCC Chairman Michael K. Powell at the FCC Forum on Voice over Internet Protocol (VoIP) December 1, 2003 – Washington, D.C.

1 The burden should be placed squarely on government to demonstrate
2 why regulation is needed, rather than on innovators to explain why it is
3 not."[43]

4 **Q. CAN YOU DISCUSS FURTHER WHY THE "HANDS-OFF" APPROACH BY**
5 **THE FCC HAS BEEN SO SUCCESSFUL?**

6 A. Yes. By refraining from regulating technology, the FCC has eliminated the
7 uncertainty that regulation sometimes imposes on the industry. This has allowed the
8 capital markets and industry players to develop business plans and to invest capital to
9 meet consumer demand.

10 It is very difficult for companies to develop products and technology when
11 faced with a patchwork of regulatory requirements. The balkanization of the
12 regulatory landscape increases not only the costs of compliance – if what constitutes
13 compliance can even be determined – but also embeds an unacceptable level of
14 inefficiency resulting from an inability to achieve economies of scale – economies of
15 scale that the ILECs have enjoyed throughout their life cycle by virtue of their
16 monopoly hold on the market. In other words, there should be one unified regulatory
17 approach to VoIP services and technology, not a 50-state patchwork of regulation.

18 **Q. ARE YOU SUGGESTING THAT THE STATES SHOULD SIMPLY FOLLOW**
19 **THE LEAD OF THE FCC?**

20 A. No. But the Federal approach has been very successful, so the states should seriously
21 consider what benefits would derive from imposing multiple and perhaps wildly

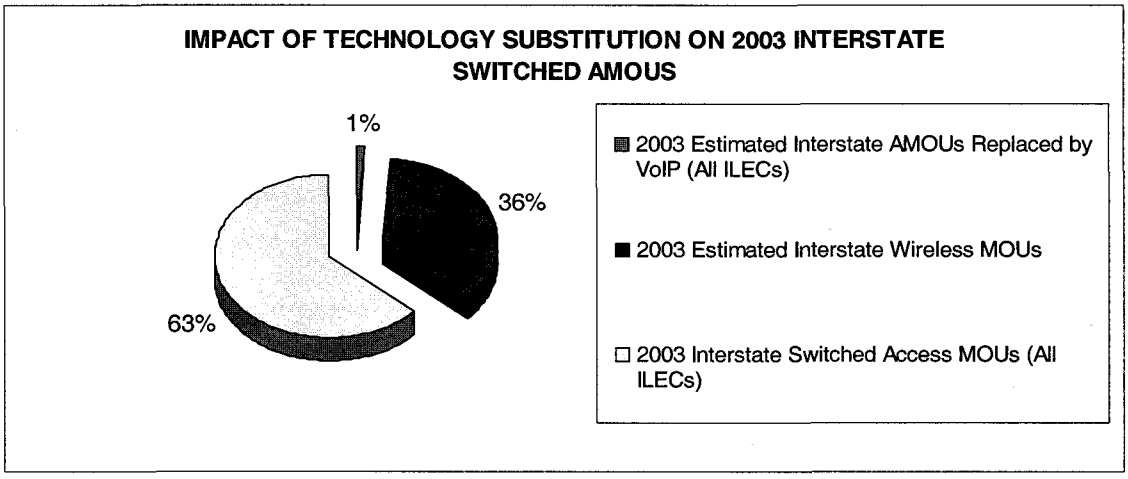
---

[43] *See*, US News & World Report, "Courting Calls – Telecom and Cable Firms Scramble to Offer Internet Calls"; by Mary Kathleen Flynn; Feb 2, 2004.

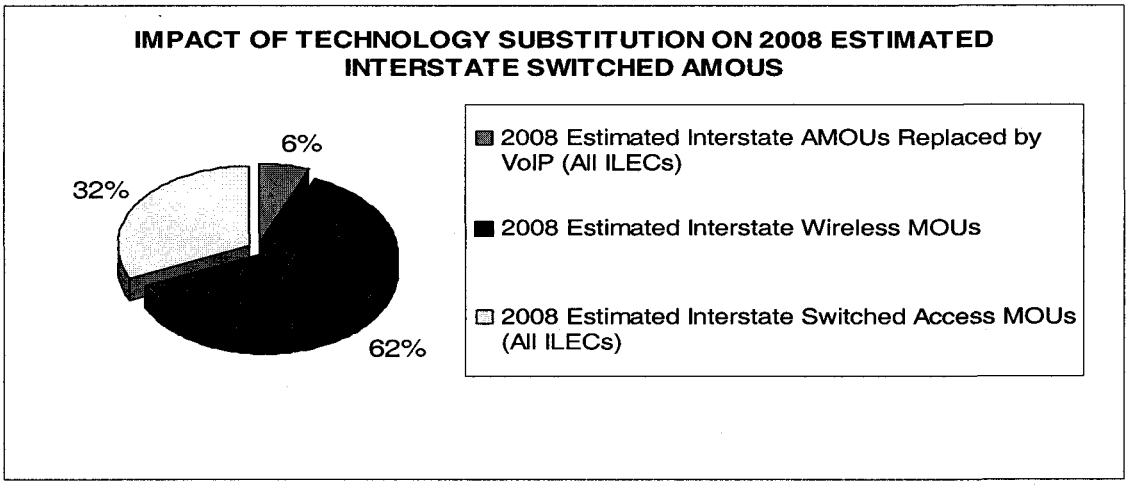
varying regulatory paradigms of their own. The Commission should maintain Arizona's current policy of not applying access charges on IP-Enabled traffic until the FCC completes its investigations in the NPRMs (*Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92 and *IP-Enabled Services*, WC Docket No. 04-36). The information gathered in the FCC proceedings will be useful in the evolving policy debate at the state level.

Q. IS IP-ENABLED OR VOIP TRAFFIC A SIGNIFICANT PART OF THE TOTAL TRAFFIC IN THE UNITED STATES?

A. No, but it is a growing percentage. In the two charts below, a comparison of various technologies is provided for 2003 and for 2008.[44] The first chart shows VoIP minutes were about one percent of total switched minutes of use in 2003. In the second chart, we see projected 2008 VoIP minutes to be about six percent of the total.



[44] These charts and their underlying data were taken from publicly available research sources and compiled for use in FCC Docket Nos. 04-36, 03-266.



At the same time, we see dramatic increases in the projected amount of wireless minutes of use. So, while VoIP is getting significant attention today, the volumes and revenues associated with that traffic are not yet significant. Further, to the extent substitution is occurring in the market, the majority of that substitution is occurring because of wireless and not VoIP.

Q. WON'T ILECS BE HARMED BY NOT RECEIVING ACCESS CHARGES ON IP-ENABLED TRAFFIC, EVEN IF THAT TRAFFIC IS A SMALL PERCENTAGE OF THE TOTAL?

A. No. First of all, as discussed above, the traffic to date is *de minimis*. Second, Qwest is being fully compensated for the traffic, albeit at a lower rate.

Q. IF QWEST AND THE OTHER RBOCS WERE CORRECT ABOUT THE IMPACT ON REVENUES AND EARNINGS, WOULD THAT JUSTIFY REGULATION OF IP-ENABLED SERVICES?

A. No. Neither the ILECs' dire predictions of reduced local revenue (as market share shifts to VoIP providers), nor their dire predictions of all long distance traffic moving

to VoIP to avoid access charges, even if they were correct, would justify common carrier regulation of IP-Enabled services. Moreover, as Verizon's Chief Executive Officer Seidenberg has stated: "Our view is to let cannibalization occur."[45] Seidenberg has said that while VoIP probably would reduce Verizon's local phone market share from 90% to 60%, Verizon plans to participate in VoIP both as a backbone provider and as an ISP, "meaning more revenue per customer."[46]

Q. HAS QWEST SUPPORTED THE FEDERAL "HANDS OFF" APPROACH TO IP-ENABLED SERVICES?

A. Yes. Qwest has supported the FCC's position against regulation of voice communications over the Internet. In an article dated December 5, 2003, Qwest's CEO said, "...it would be inconsistent for the commission to regulate what's known as "voice over Internet protocol" (VoIP) service when similar services, such as telephone via cable connection and wireless phones, are not regulated." He went on to note that Qwest was launching its VoIP service in Minnesota and that VoIP could be more profitable to the company than traditional phone service, because it does not have the added costs of regulation.[47]

---

45 Communications Daily, (June 20, 2001).

46 *Id.*

47 "Qwest Chief Backs Up FCC on Voice Over Internet"; Denver Post, Dec 5, 2003.

Q. HAVE ILECS ARGUED IN THE PAST THAT, IN THE ABSENCE OF ACCESS CHARGE REVENUES, RATEPAYERS WOULD BE NEGATIVELY IMPACTED?

A. Yes. The faulty premise of the previous RBOC argument has been that the impact of VoIP would negatively impact RBOC margins, resulting in the need for RBOCs to increase local rates. Today, however, as discussed above, the RBOCs are rapidly deploying VoIP services and embracing the new technology. Indeed, the RBOCs are supporting the FCC decision to not regulate these services, in part because of their offerings. In fact, on Qwest's website it boasts about its IP network and its ability to provide "mission critical applications" such as VoIP:

> For years, Qwest's state-of-the-art IP network has been transferring voice and data across the globe for businesses of all sizes. The Qwest network has the capacity and advanced capabilities to support today's mission critical applications such as Voice over IP (VoIP), as well as bandwidth-intensive business applications such as Enterprise Resource Planning, Customer Relationship Management, and other business-to-business functions.[48]

AT&T has rolled out an aggressive VoIP initiative. Time Warner Cable has said that it is teaming with MCI and Sprint to offer VoIP services nationally. As such, this is not just a niche market, but one that all providers – ILECs, CLECs, cable providers, etc. – are rushing to participate in. As a U. S. News and World Report

---

[48] See http://www.qwest.com/about/qwest/network/index.html.

article concluded, "The bottom line: Consumers and businesses stand to benefit from lower prices and a wide range of sophisticated features."[49]

Q. WHY WOULD QWEST SEEK TO IMPOSE ACCESS CHARGES ON VOIP TRAFFIC WHEN IT IS DEPLOYING THE SERVICE?

A. Qwest is attempting to maintain its sinecure access revenue as a prop as it migrates itself to the IP platforms – the end result being a continuation of its predominant market position and the lack of competition.

Q. ASSUMING VOIP IS SUBSTITUTING FOR OTHER SERVICES, ARE THERE OFFSETS TO THE SUBSTITUTION OCCURRING IN THE INDUSTRY?

A. Yes. Over the last few years, RBOCs have been the beneficiaries of gaining, for the first time, access to markets and associated revenues that have experienced tremendous growth. For example, Qwest announced last year that it had achieved one million DSL subscribers. This growth in DSL is directly related to the growing popularity of the Internet and related services, including VoIP. Specifically Qwest stated:

> As a direct result of strategic DSL investments and initiatives, Qwest Communications International Inc. (NYSE: Q) announced today that it has achieved one million DSL subscribers. This represents an important milestone for the company and highlights the fact that Qwest's four consecutive quarters of double-digit subscriber growth is outpacing the current industry average.[50]

---

[49] *See*, US News & World Report, "Courting Calls – Telecom and Cable Firms Scramble to Offer Internet Calls"; by Mary Kathleen Flynn; Feb 2, 2004.

[50] See Qwest Press Release entitled, "Qwest Achieves One Million DSL Subscriber Milestone", released December 13, 2004.

Qwest's consumer data and Internet revenues were up nearly 50 percent in 2004. Qwest also ended 2004 with 4.6 million long-distance lines, more than double the 2.2 million lines a year earlier. These significant gains, combined with reduction in the access line losses, shows that Qwest is not being harmed by the introduction of IP-Enabled services.

Q. PLEASE EXPLAIN WHAT YOU MEAN BY "REDUCTION IN ACCESS LINE LOSSES."

A. Prior to the passage of the 96 Act and the introduction of competition in the local market, ILECs had essentially 100 percent of the access lines. As CLECs entered to the local market, ILECs saw a reduction in the total number of access lines. Generally, the number of access lines lost increased over time. Since the demise of UNE-P, however, and the continuing consolidation in the CLEC market, the loss in access lines has decreased. In its fourth quarter 2004 financial reports, Qwest stated,

> The company continues to make significant inroads in stemming competitive loss from facilities-based competitors. Resold lines declined 28,000 sequentially as changes in the regulatory environment have reduced competition from UNE resellers.[51]

In that same document Qwest also noted under **Operational Highlights**, "Major drivers of Qwest's revenue included operational progress in key growth areas, as well as improvement in access line losses." So the "reduction in access line loss" is an indication that Qwest is taking back lines or losing fewer lines than in the past.

---

[51] See Qwest News Release, "Qwest Improves in Key Growth Areas and Sees Margin Expansion in Fourth Quarter 2004."

Q. IS THERE ANY REASON WHY VOIP AND OTHER IP-ENABLED OFFERINGS SHOULD NOT BE GIVEN THE FREEDOM TO DEVELOP?

A. No. The Internet, VoIP applications, wireless, fixed wireless and other developing technologies only increase the value of local phone service. Today we are seeing significant investments in newer technologies (3G wireless, IP networks, IP CPE, PDAs, cable plant upgrades, automation and robotics, etc.) instead of continuing investment in the traditional circuit switched network.[52] These new investments and technologies are resulting in more efficient provisioning of service, new features and mobility, and flexibility in managing services and features. In fact, IP-Enabled services, with their integrated voice and data features, will make business and personal use of communications much more efficient. This new trend is adding value to the economy and consumers (residential and business alike) are enjoying new services and flexibility.

Q. WHY ARE VOIP, WIRELESS AND OTHER TECHNOLOGIES SO INTRIGUING TO CONSUMERS?

A. There are several reasons why consumers are attracted to these new offerings. These new services offer flexibility that a fixed wireline cannot offer and, as such, provide an important complement to wireline services. Wireless and VoIP services are portable so you can in effect take your service with you. In certain environments this is a significant benefit to consumers. Efficiency, which always entails a cost

---

[52] I am not suggesting that investment in the traditional PSTN has stopped. Investments continue to be made, including maintenance on existing plant in service; the new investments, however, are focusing on new technologies.

advantage, is also a consumer issue. Further, companies will enjoy savings and efficiencies through virtual call centers, reduced commuting costs as employees work more efficiently from home and the obvious savings that competition will bring.

Q. HAVE SOME STATES RECOGNIZED THE POTENTIAL EFFICIENCIES AND SAVINGS THAT VOIP MIGHT PROVIDE?

A. Yes. A California Performance Review noted that "Moving to VoIP could reduce the state's phone bill by between $20 million and $75 million a year."[53] An article on the review also referred to findings that "VoIP technology has competitive features that would benefit the state. Internet-based phone calling has built-in benefits such as integrated caller ID, flexibility and network management tools that provide real-time monitoring of bandwidth."[54]

Q. PLEASE SUMMARIZE YOUR TESTIMONY REGARDING THE REGULATION OF IP-ENABLED SERVICES.

A. The Commission should adopt the same "hands off" policy that has been so successful in encouraging the development of Internet and other IP-based applications, including VoIP. Concurrently, the Commission should reaffirm its commitment to competitors, especially competitors that serve the VoIP application

---

[53] "The ultimate goal of the California Performance Review is to restructure, reorganize and reform state government to make it more responsive to the needs of its citizens and business community. Only by demonstrating through concrete action the responsiveness of state government can the public's trust and confidence be regained." http://cpr.ca.gov/about/#cpr. The entire report can be found on the Internet at http://www.report.cpr.ca.gov/. The quotation in the text above is from the fourth volume of that report, at SO15, Voice Over Internet Protocol Statewide Network Infrastructure.

[54] See, "California Urged to Use Open Source, VoIP", c|net News.Com; August 13, 2004.

community, that non-discriminatory, cost based, pro-competitive access to the network infrastructure of the ILECs will be vigorously promoted and enforced. Unless there is some specific need to regulate such offerings, they should be allowed to thrive or fail based on the market dynamics they face and create.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

QSI consulting, inc.

Qualifications of Timothy J Gates
Exhibit TJG-1

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

A. Prior to my current position with QSI Consulting, I was a Senior Executive Staff Member in MCI WorldCom's ("MCIW") National Public Policy Group. In this position, I was responsible for providing public policy expertise in key cases across the country and for managing external consultants for MCIW's state public policy organization. In certain situations, I also provided testimony in regulatory and legislative proceedings.

Prior to my position with MCIW in Denver, I was an Executive Staff Member II at MCI Telecommunications ("MCI") World Headquarters in Washington D.C.. In that position I managed economists, external consultants, and provided training and policy support for regional regulatory staffs. Prior to that position I was a Senior Manager in MCI's Regulatory Analysis Department, which provided support in state regulatory and legislative matters to the various operating regions of MCI. In that position I was given responsibility for assigning resources from our group for state regulatory proceedings throughout the United States. At the same time, I prepared and presented testimony on various telecommunications issues before state regulatory and legislative bodies. I was also responsible for managing federal tariff reviews and presenting MCI's position on regulatory matters to the Federal Communications Commission. Prior to my assignment in the Regulatory Analysis Department, I was the Senior Manager of Economic Analysis and Regulatory Policy in the Legal, Regulatory and Legislative Affairs Department for the Midwest Division of MCI. In that position I developed and promoted regulatory policy within what was then a five-state operating division of MCI. I promoted MCI policy positions through negotiations, testimony and participation in industry forums.

Prior to my positions in the Midwest, I was employed as Manager of Tariffs and Economic Analysis with MCI's West Division in Denver, Colorado. In that position I was responsible for managing the development and application of MCI's tariffs in the fifteen MCI West states. I was also responsible for managing regulatory dockets and for providing economic and financial expertise in the areas of discovery and issue analysis. Prior to joining the West Division, I was a Financial Analyst III and then a Senior Staff Specialist with MCI's Southwest Division in Austin, Texas. In those positions, I was responsible for the management of regulatory dockets and liaison with outside counsel. I was also responsible for discovery, issue analysis, and for the development of working relationships with consumer and business groups. Just prior to joining MCI, I was employed by the Texas Public Utility Commission as a Telephone Rate Analyst in the Engineering Division responsible for examining

telecommunications cost studies and rate structures.

I was employed as an Economic Analyst with the Public Utility Commissioner of Oregon from July, 1983 to December, 1984. In that position, I examined and analyzed cost studies and rate structures in telecommunications rate cases and investigations. I also testified in rate cases and in private and public hearings regarding telecommunications services. Before joining the Oregon Commissioner's Staff, I was employed by the Bonneville Power Administration (United States Department of Energy) as a Financial Analyst, where I made total regional electric use forecasts and automated the Average System Cost Review Methodology. Prior to joining the Bonneville Power Administration, I held numerous positions of increasing responsibility in areas of forest management for both public and private forestry concerns.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL CREDENTIALS.

A. I received a Bachelor of Science degree from Oregon State University and a Master of Management degree in Finance and Quantitative Methods from Willamette University's Atkinson Graduate School of Management. I have also attended numerous courses and seminars specific to the telecommunications industry, including the NARUC Annual and Advanced Regulatory Studies Program.

Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?

A. Effective April 1, 2000, I joined QSI Consulting as Senior Vice President and Partner. In this position I provide analysis and testimony for QSI's many clients. The deliverables include written and oral testimony, analysis of rates, cost studies and policy positions, position papers, presentations on industry issues and training.

Q. PLEASE IDENTIFY THE JURISDICTIONS IN WHICH YOU HAVE TESTIFIED.

A. I have filed testimony or comments on telecommunications issues in the following 44 states: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Washington, West Virginia, Wisconsin and Wyoming. I have also filed comments with the FCC and made presentations to the Department of Justice.

I have testified or presented formal comments in the following proceedings and forums:

Alabama:

October 18, 2000; Docket No. 27867; Adelphia Business Solutions Arbitration with BellSouth Telecommunications; Direct Testimony on Behalf of Adelphia.

January 31, 2001; Docket No. 27867; Adelphia Business Solutions Arbitration with BellSouth Telecommunications; Rebuttal Testimony on Behalf of Adelphia.

Arkansas:

September 7, 2004; Docket No. 04-0999-U; In the Matter of Level 3 Petition for Arbitration with Southwestern Bell Telephone, L.P. D/B/A SBC Arkansas; Direct Testimony on Behalf of Level 3.

Arizona:

September 23, 1987; Arizona Corporation Commission Workshop on Special Access Services; Comments on Behalf of MCI.

August 21, 1996; Affidavit in Opposition to USWC Motion for Partial Summary Judgment; No. CV 95-14284, No. CV-96-03355, No. CV-96-03356, (consolidated); On Behalf of MCI.

October 24, 1997; Comments to the Universal Service Fund Working Group; Docket No. R-0000-97-137; On Behalf of MCI.

May 8, 1998; Comments to the Universal Service Fund Working Group; Docket No.R-0000-97-137; On Behalf of MCI.

November 9, 1998; Docket No. T-03175A-97-0251; Application of MCImetro Access Transmission Services, Inc. to Expand It's CCN to Provide IntraLATA Services and to Determine that Its IntraLATA Services are Competitive; Direct Testimony on Behalf of MCI WorldCom, Inc.

September 20, 1999; Docket No. T-00000B-97-238; USWC OSS Workshop; Comments on Behalf of MCI WorldCom, Inc.

January 8, 2001; Docket Nos. T-03654A-00-0882, T-01051B-00-0882; Petition of Level 3 Communications, LLC, for Arbitration with Qwest Corporation; Direct Testimony on Behalf of Level 3.

February 20, 2001; Superior Court of Arizona; Count of Maricopa; ESI Ergonomic Solutions, LLC, Plaintiff, vs. United Artists Theatre Circuit; No. CV 99-20649; Affidavit on Behalf of United Artists Theatre Circuit.

September 2, 2001; Docket No. T-00000A-00-0194 Phase II – A; Investigation into Qwest's Compliance with Wholesale Pricing Requirements for Unbundled Network Elements and Resale Discounts; Rebuttal Testimony on Behalf of WorldCom, Inc.

January 9, 2004; Docket No. T-00000A-03-0369; In the Matter of ILEC Unbundling Obligations as a Result of the Federal Triennial Review Order; Direct Testimony on Behalf of WorldCom, Inc. (MCI).

November 18, 2004; Docket No. T-01051B-0454; In the Matter of Qwest Corporation's Amended Renewed Price Regulation Plan; Direct Testimony on Behalf of Time Warner Telecom, Inc.

Arkansas:

September 7, 2004; Docket No. 04-099-U; In the Matter of Level 3 Petition for Arbitration Pursuant to Section 252(b) with Southwestern Bell Telephone, L.P. D/B/A SBC Arkansas; Direct Testimony on Behalf of Level 3 Communications, LLC.

California:

August 30, 1996; Application No. 96-08-068; MCI Petition for Arbitration with Pacific Bell; Direct Testimony on Behalf of MCI.

September 10, 1996; Application No. 96-09-012; MCI Petition for Arbitration with GTE California, Inc.; Direct Testimony on Behalf of MCI.

June 5, 2000; Docket No. A0004037; Petition of Level 3 Communications for Arbitration of an Interconnection Agreement with Pacific Bell Telephone Company; Direct Testimony on Behalf of Level 3 Communications, LLC.

June 1, 2004; Docket No. A.04-06-004; Petition of Level 3 Communications for Arbitration with SBC; Direct Testimony on Behalf of Level 3 Communications LLC.

Colorado:

December 1, 1986; Investigation and Suspension Docket No. 1720; Rate Case of Mountain States Telephone and Telegraph Company; Direct Testimony on Behalf of MCI.

October 26, 1988; Investigation and Suspension Docket No. 1766; Mountain States Telephone and Telegraph Company's Local Calling Access Plan; Direct Testimony of Behalf of MCI.

September 6, 1996; MCImetro Petition for Arbitration with U S WEST Communications, Inc.; Docket No. 96A-366T (consolidated); Direct Testimony on Behalf of MCI.

September 17, 1996; MCImetro Petition for Arbitration with U S WEST Communications, Inc.; Docket No. 96A-366T (consolidated); Rebuttal Testimony on Behalf of MCI.

September 26, 1996; Application of U S WEST Communications, Inc. To Modify Its Rate and Service Regulation Plan; Docket No. Docket No. 90A-665T (consolidated); Direct Testimony on Behalf of MCI.

October 7, 1996; Application of U S WEST Communications, Inc. To Modify Its Rate and Service Regulation Plan; Docket No. Docket No. 90A-665T (consolidated); Rebuttal Testimony on Behalf of MCI.

July 18, 1997; Complaint of MCI to Reduce USWC Access Charges to Economic Cost; Docket Nos. 97K-237T, 97F-175T (consolidated) and 97F-212T (consolidated); Direct Testimony on Behalf of MCI.

August 15, 1997; Complaint of MCI to Reduce USWC Access Charges to Economic Cost; Docket Nos. 97K-237T, 97F-175T (consolidated) and 97F-212T (consolidated); Rebuttal Testimony on Behalf of MCI.

March 10, 1998; Application of WorldCom, Inc. for Approval to Transfer Control of MCI to WorldCom, Inc.; Docket No. 97A-494T; Supplemental Direct Testimony on Behalf of MCI.

March 26, 1998; Application of WorldCom, Inc. for Approval to Transfer Control of MCI to WorldCom, Inc.; Docket No. 97A-494T; Rebuttal Testimony on Behalf of MCI.

May 8, 1998; Application of WorldCom, Inc. for Approval to Transfer Control of MCI to WorldCom, Inc.; Docket No. 97A-494T; Affidavit in Response to GTE.

November 4, 1998; Proposed Amendments to the Rules Prescribing IntraLATA Equal Access; Docket No. 98R-426T; Comments to the Commission on Behalf of MCI WorldCom and AT&T Communications of the Mountain States, Inc.

May 13, 1999; Proposed Amendments to the Rules on Local Calling Area Standards; Docket No. 99R-128T; Oral Comments before the Commissioners on Behalf of MCIW.

January 4, 2001; Petition of Level 3 Communications, LLC for Arbitration with Qwest Corporation; Docket No. 00B-601T; Direct Testimony on Behalf of Level 3.

January 16, 2001; Petition of Level 3 Communications, LLC for Arbitration with Qwest Corporation; Docket No. 00B-601T; Rebuttal Testimony on Behalf of Level 3.

January 29, 2001; Qwest Corporation, Inc., Plaintiff, v. IP Telephony, Inc., Defendant. District Court, City and County of Denver, State of Colorado; Case No. 99CV8252; Direct Testimony on Behalf of IP Telephony.

June 27, 2001; US WEST Statement of Generally Available Terms and Conditions; Docket No. 991-577T; Direct Testimony on Behalf of Covad Communications Company, Rhythms Links, Inc., and New Edge Networks, Inc.

January 26, 2004; Regarding the Unbundling Obligations of ILECs Pursuant to the Triennial Review Order; Docket No. 03I-478T; Direct Testimony on Behalf of WorldCom, Inc. (MCI).

February 18, 2005; Regarding Application of Qwest for Reclassification and Deregulation of Certain Products and Services; Docket No. 04A-411T; Direct Testimony on Behalf of Time Warner Telecom.

Connecticut:

November 2, 2004; Petition of Level 3 Communications, LLC for Arbitration Pursuant to Section 252(b) with Southern New England Telephone Company d/b/a/ SBC Connecticut; Level 3/SNET Arbitration; Direct Testimony on Behalf of Level 3 Communications, LLC.

Delaware:

February 12, 1993; Diamond State Telephone Company's Application for a Rate Increase; Docket No. 92-47; Direct Testimony on Behalf of MCI.

Florida:

July 1, 1994; Investigation into IntraLATA Presubscription; Docket No. 930330-TP; Direct Testimony on Behalf of MCI.

October 5, 2000; Petition of Level 3 for Arbitration with BellSouth; Docket No. 000907-TP; Direct Testimony On Behalf of Level 3.

October 13, 2000; Petition of BellSouth for Arbitration with US LEC of Florida Inc.; Docket No. 000084-TP; Direct Testimony On Behalf of US LEC.

October 27, 2000; Petition of BellSouth for Arbitration with US LEC of Florida Inc.; Docket No. 000084-TP; Rebuttal Testimony On Behalf of US LEC.

November 1, 2000; Petition of Level 3 for Arbitration with BellSouth; Docket No. 000907-TP; Rebuttal Testimony On Behalf of Level 3.

June 11, 2004; Petition of KMC Telecom for Arbitration with Sprint Communications; Docket No. 031047-TP; Direct Testimony on Behalf of KMC Telecom III, L.L.C, KMC Telecom V, Inc., and KMC Data, L.L.C.

July 9, 2004; Petition of KMC Telecom for Arbitration with Sprint Communications; Docket No. 031047-TP; Rebuttal Testimony on Behalf of KMC Telecom III, L.L.C, KMC Telecom V, Inc., and KMC Data, L.L.C.

Georgia:

December 6, 2000; Docket No. 12645-U; Petition of Level 3 for Arbitration with BellSouth; Direct Testimony on Behalf of Level 3.

December 20, 2000; Docket No. 12645-U; Petition of Level 3 for Arbitration with BellSouth; Rebuttal Testimony on Behalf of Level 3.

Idaho:

November 20, 1987; Case No. U_1150_1; Petition of MCI for a Certificate of Public Convenience and Necessity; Direct Testimony on Behalf of MCI.

March 17, 1988; Case No. U_1500_177; Investigation of the Universal Local Access Service Tariff; Direct Testimony on Behalf of MCI.

April 26, 1988; Case No. U_1500_177; Investigation of the Universal Local Access Service Tariff; Rebuttal Testimony on Behalf of MCI.

November 25, 2002; Case No. GNR-T-02-16; Petition of Potlatch, CenturyTel, the Idaho Telephone Association for Declaratory Order Prohibiting the Use of "Virtual" NXX Calling; Comments/Presentation on Behalf of Level 3, AT&T, WorldCom, and Time Warner Telecom.

Illinois:

January 16, 1989; Docket No. 83-0142; Appropriate Methodology for Intrastate Access Charges; Rebuttal Testimony Regarding Toll Access Denial on Behalf of MCI.

February 16, 1989; Docket No. 83-0142; Appropriate Methodology for Intrastate Access Charges; Testimony Regarding ICTC's Access Charge Proposal on Behalf of MCI.

May 3, 1989; Docket No. 89-0033; Illinois Bell Telephone Company's Rate Restructuring; Direct Testimony on Behalf of MCI.

July 14, 1989; Docket No. 89-0033; Illinois Bell Telephone Company's Rate Restructuring; Rebuttal Testimony on Behalf of MCI.

November 22, 1989; Docket No. 88-0091; IntraMSA Dialing Arrangements; Direct Testimony on Behalf of MCI.

February 9, 1990; Docket No. 88-0091; IntraMSA Dialing Arrangements; Rebuttal Testimony on Behalf of MCI.

November 19, 1990; Docket No. 83-0142; Industry presentation to the Commission re Docket No. 83-0142 and issues for next generic access docket; Comments re the Imputation Trial and Unitary Pricing/Building Blocks on Behalf of MCI.

July 29, 1991; Case No. 90-0425; Presentation to the Industry Regarding MCI's Position on Imputation.

November 18, 1993; Docket No. 93-0044; Complaint of MCI and LDDS re Illinois Bell Additional Aggregated Discount and Growth Incentive Discount Services; Direct Testimony on Behalf of MCI and LDDS.

January 10, 1994; Docket No. 93-0044; Complaint of MCI and LDDS re Illinois Bell Additional Aggregated Discount and Growth Incentive Discount Services; Rebuttal Testimony on Behalf of MCI and LDDS.

May 30, 2000; Docket No. 00-0332; Level 3 Petition for Arbitration to Establish and Interconnection Agreement with Illinois Bell Telephone Company; Direct Testimony on Behalf of Level (3) Communications, LLC.

July 11, 2000: Docket No. 00-0332; Level 3 Petition for Arbitration to Establish and Interconnection Agreement with Illinois Bell Telephone Company; Supplemental Verified Statement on Behalf of Level (3) Communications, LLC.

June 22, 2004; Docket No. 04-0428; Level 3 Petition for Arbitration to Establish an Interconnection Agreement with Illinois Bell Telephone Company; Direct Testimony on Behalf of Level (3) Communications, LLC.

September 3, 2004; Docket No. 04-0428; Level 3 Petition for Arbitration to Establish an Interconnection Agreement with Illinois Bell Telephone Company; Direct Testimony on Behalf of Level (3) Communications, LLC.

Indiana:

October 28, 1988; Cause No. 38561; Deregulation of Customer Specific Offerings of Indiana Telephone Companies; Direct Testimony on Behalf of MCI.

December 16, 1988; Cause No. 38561; Deregulation of Customer Specific Offerings of Indiana Telephone Companies; Direct Testimony on Behalf of MCI Regarding GTE.

April 14, 1989; Cause No. 38561; Deregulation of Customer Specific Offerings of Indiana Telephone Companies; Direct Testimony on Behalf of MCI Regarding Staff Reports.

June 21, 1989; Cause No. 37905; Intrastate Access Tariffs -- Parity with Federal Rates; Direct Testimony on Behalf of MCI.

June 29, 1989; Cause No. 38560; Reseller Complaint Regarding 1+ IntraLATA Calling; Direct Testimony on Behalf of MCI.

October 25, 1990; Cause No. 39032; MCI Request for IntraLATA Authority; Direct Testimony on Behalf of MCI.

April 4, 1991; Rebuttal Testimony in Cause No. 39032 re MCI's Request for IntraLATA Authority on Behalf of MCI.

September 2, 2004; Cause No. 42663-INT-01; In the Matter of Level 3 Communications, LLC Petition for Arbitration with SBC Indiana; Direct Testimony on Behalf of Level 3 Communications, LLC.

October 5, 2004; Cause No. 42663-INT-01; In the Matter of Level 3 Communications, LLC Petition for Arbitration with SBC Indiana; Rebuttal Testimony on Behalf of Level 3 Communications, LLC.

Iowa:

September 1, 1988; Docket No. RPU 88_6; IntraLATA Competition in Iowa; Direct Testimony on Behalf of MCI.

September 20, 1988; Docket No. RPU_88_1; Regarding the Access Charges of Northwestern Bell Telephone Company; Direct Testimony on Behalf of MCI.

September 25, 1991; Docket No. RPU-91-4; Investigation of the Earnings of U S WEST Communications, Inc.; Direct Testimony on Behalf of MCI.

October 3, 1991; Docket No. NOI-90-1; Presentation on Imputation of Access Charges and the Other Costs of Providing Toll Services; On Behalf of MCI.

November 5, 1991; Docket No. RPU-91-4; Investigation of the Earnings of U S WEST Communications, Inc.; Rebuttal Testimony on Behalf of MCI.

December 23, 1991; Docket No. RPU-91-4; Investigation of the Earnings of US WEST Communications; Inc.; Supplemental Testimony on Behalf of MCI.

January 10, 1992; Docket No. RPU-91-4; Investigation of the Earnings of U S WEST Communications, Inc.; Rebuttal Testimony on Behalf of MCI.

January 20, 1992; Docket No. RPU-91-4; Investigation of the Earnings of U S WEST Communications, Inc.; Surrebuttal Testimony on Behalf of MCI.

June 8, 1999; Docket NOI-99-1; Universal Service Workshop; Participated on numerous panels during two day workshop; Comments on Behalf of MCIW.

October 27, 1999: Docket NOI-99-1; Universal Service Workshop; Responded to questions posed by the Staff of the Board during one day workshop; Comments on Behalf of MCIW and AT&T.

November 14, 2003; Docket Nos. INU-03-4, WRU-03-61; In Re: Qwest Corporation; Sworn Statement of Position on Behalf of MCI.

December 15, 2003; Docket Nos. INU-03-4, WRU-03-61; In Re: Qwest Corporation; Sworn Counter Statement of Position on Behalf of MCI.

Kansas:

June 10, 1992; Docket No. 181,097-U; General Investigation into IntraLATA Competition within the State of Kansas; Direct Testimony on Behalf of MCI.

September 16, 1992; Docket No. 181,097-U; General Investigation into IntraLATA Competition within the State of Kansas; Rebuttal Testimony on Behalf of MCI.

August 31, 2004; Docket No. 04-L3CT-1046-ARB; In the Matter of Arbitration Between Level 3 Communications LLC and SBC Communications; Direct Testimony on Behalf of Level 3 Communications, LLC.

Kentucky:

May 20, 1993; Administrative Case No. 323, Phase I; An Inquiry into IntraLATA Toll Competition, an Appropriate Compensation Scheme for Completion of IntraLATA Calls by Interexchange Carriers, and WATS Jurisdictionality; Direct Testimony on Behalf of MCI.

December 21, 2000; Case No. 2000-404; Petition of Level 3 Communications, LLC for Arbitration with BellSouth; Direct Testimony on Behalf of Level 3.

January 12, 2001; Case No. 2000-477; Petition of Adelphia Business Solutions for Arbitration with BellSouth; Direct Testimony on Behalf of Adelphia.

Louisiana:

December 28, 2000; Docket No. U-25301; Petition of Adelphia Business Solutions for Arbitration with BellSouth; Direct Testimony on Behalf of Adelphia.

January 5, 2001; Docket No. U-25301; Petition of Adelphia Business Solutions for Arbitration with BellSouth; Rebuttal Testimony on Behalf of Adelphia.

Maryland:

November 12, 1993; Case No. 8585; Competitive Safeguards Required re C&P's Centrex Extend Service; Direct Testimony on Behalf of MCI.

January 14, 1994; Case No. 8585; Competitive Safeguards Required re C&P's Centrex Extend Service; Rebuttal Testimony on Behalf of MCI.

May 19, 1994; Case No. 8585; Re Bell Atlantic Maryland, Inc.'s Transmittal No. 878; Testimony on Behalf of MCI.

June 2, 1994; Case No. 8585; Competitive Safeguards Required re C&P's Centrex Extend Service; Rebuttal Testimony on Behalf of MCI.

September 5, 2001; Case No. 8879; Rates for Unbundled Network Elements Pursuant to the Telecommunications Act of 1996; Rebuttal Testimony on behalf of the Staff of the Public Service Commission of Maryland.

October 15, 2001; Case No. 8879; Rates for Unbundled Network Elements Pursuant to the Telecommunications Act of 1996; Surrebuttal Testimony on behalf of the Staff of the Public Service Commission of Maryland.

Massachusetts:

April 22, 1993; D.P.U. 93-45; New England Telephone Implementation of Interchangeable NPAs; Direct Testimony on Behalf of MCI.

May 10, 1993; D.P.U. 93-45; New England Telephone Implementation of Interchangeable NPAs; Rebuttal Testimony on Behalf of MCI.

Michigan:

September 29, 1988; Case Nos. U_9004, U_9006, U_9007 (Consolidated); Industry Framework for IntraLATA Toll Competition; Direct Testimony on Behalf of MCI.

November 30, 1988; Case Nos. U_9004, U_9006, U_9007 (Consolidated); Industry Framework for IntraLATA Toll Competition; Rebuttal Testimony on Behalf of MCI.

June 30, 1989; Case No. U-8987; Michigan Bell Telephone Company Incentive Regulation Plan; Direct Testimony on Behalf of MCI.

July 31, 1992; Case No. U-10138; MCI v Michigan Bell and GTE re IntraLATA Equal Access; Direct Testimony on Behalf of MCI.

November 17, 1992; Case No. U-10138; MCI v Michigan Bell and GTE re IntraLATA Equal Access; Rebuttal Testimony on Behalf of MCI.

July 22, 1993; Case No. U-10138 (Reopener); MCI v Michigan Bell and GTE re IntraLATA Equal Access; Direct Testimony on Behalf of MCI.

February 16, 2000; Case No. U-12321; AT&T Communications of Michigan, Inc. Complainant v. GTE North Inc. and Contel of the South, Inc., d/b/a GTE Systems of Michigan; Direct Testimony on Behalf of AT&T. (Adopted Testimony of Michael Starkey)

May 11, 2000; Case No. U-12321; AT&T Communications of Michigan, Inc. Complainant v. GTE North Inc. and Contel of the South, Inc., d/b/a GTE Systems of Michigan; Rebuttal Testimony on Behalf of AT&T.

June 8, 2000; Case No. U-12460; Petition of Level 3 Communications for Arbitration to Establish an Interconnection Agreement with Ameritech Michigan; Direct Testimony on Behalf of Level (3) Communications, LLC.

September 27, 2000; Case No. U-12528; In the Matter of the Implementation of the Local Calling Area Provisions of the MTA; Rebuttal Testimony on Behalf of Focal Communications, Inc.

June 1, 2004; Case No. U-14152; Petition of Level 3 Communications LLC for Arbitration with SBC Michigan; Direct Testimony on Behalf of Level 3 Communications, LLC.

Minnesota:

January 30, 1987; Docket No. P_421/CI_86_88; Summary Investigation into Alternative Methods for Recovery of Non-traffic Sensitive Costs; Comments to the Commission on Behalf of MCI.

September 7, 1993; Docket No. P-999/CI-85-582, P-999/CI-87-697 and P-999/CI-87-695, In the Matter of an Investigation into IntraLATA Equal Access and Presubscription; Comments of MCI on the Report of the Equal Access and Presubscription Study Committee on Behalf of MCI.

September 20, 1996; Petition for Arbitration with U S WEST Communications, Inc.; Docket No. P-442, 421/M-96-855; P-5321, 421/M-96-909; and P-3167, 421/M-96-729 (consolidated); Direct Testimony on Behalf of MCI.

September 30, 1996; Petition for Arbitration with U S WEST Communications, Inc.; Docket No. P-442, 421/M-96-855; P-5321, 421/M-96-909; and P-3167, 421/M-96-729 (consolidated); Rebuttal Testimony on Behalf of MCI.

September 14-16, 1999; USWC OSS Workshop; Comments on Behalf of MCI WorldCom, Inc. re OSS Issues.

September 28, 1999; Docket No. P-999/R-97-609; Universal Service Group; Comments on Behalf of MCI WorldCom, Inc. and AT&T Communications.

April 18, 2002; Commission Investigation of Qwest's Pricing of Certain Unbundled Network Elements; Docket Nos. P-442, 421, 3012/M-01-1916; P-421/C1-01-1375; OAH Docket No. 12-2500-14490; Rebuttal Testimony on Behalf of McLeod USA Telecommunications Services, Inc., Eschelon Telecom of Minnesota, Inc., US Link, Inc., Northstar Access, LLC, Otter Tail Telecomm LLC, VAL-Ed Joint Venture, LLP, dba 702 Communications.

January 23, 2004; In the Matter of the Commission Investigation into ILEC Unbundling Obligations as a Result of the Federal Triennial Review Order; Docket No.: P-999/CI-03-961; Direct Testimony on Behalf of WorldCom, Inc. (MCI).

Mississippi:

February 2, 2001; Docket No. 2000-AD-846; Petition of Adelphia Business Solutions for Arbitration with BellSouth Telecommunications; Direct Testimony on Behalf of Adelphia.

February 16, 2001; Docket No. 2000-AD-846; Petition of Adelphia Business Solutions for Arbitration with BellSouth Telecommunications; Rebuttal Testimony on Behalf of Adelphia.

Montana:

May 1, 1987; Docket No. 86.12.67; Rate Case of AT&T Communications of the Mountain States, Inc.; Direct Testimony on Behalf of MCI.

September 12, 1988; Docket No. 88.1.2; Rate Case of Mountain States Telephone and Telegraph Company; Direct Testimony on Behalf of MCI.

May 12, 1998; Docket No. D97.10.191; Application of WorldCom, Inc. for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc.; Rebuttal Testimony on Behalf of MCI.

June 1, 1998; Docket No. D97.10.191; Application of WorldCom, Inc. for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc.; Amended Rebuttal Testimony on Behalf of MCI.

Nebraska:

November 6, 1986; Application No. C_627; Nebraska Telephone Association Access Charge Proceeding; Direct Testimony on Behalf of MCI.

March 31, 1988; Application No. C_749; Application of United Telephone Long Distance Company of the Midwest for a Certificate of Public Convenience and Necessity; Direct Testimony on Behalf of MCI.

New Hampshire:

April 30, 1993; Docket DE 93-003; Investigation into New England Telephone's Proposal to Implement Seven Digit Dialing for Intrastate Toll Calls; Direct Testimony on Behalf of MCI.

January 12, 2001; Docket No. DT 00-223; Investigation Into Whether Certain Calls are Local; Direct Testimony on Behalf of BayRing Communications.

April 5, 2002; Docket No. DT 00-223; Investigation Into Whether Certain Calls are Local; Rebuttal Testimony on Behalf of BayRing Communications.

New Jersey:

September 15, 1993; Docket No. TX93060259; Notice of Pre-Proposal re IntraLATA Competition; Comments in Response to the Board of Regulatory Commissioners on Behalf of MCI.

October 1, 1993; Docket No. TX93060259; Notice of Pre-Proposal re IntraLATA Competition; Reply Comments in Response to the Board of Regulatory Commissioners on Behalf of MCI.

April 7, 1994; Docket Nos. TX90050349, TE92111047, and TE93060211; Petitions of MCI, Sprint and AT&T for Authorization of IntraLATA Competition and Elimination of Compensation; Direct Testimony on Behalf of MCI.

April 25, 1994; Docket Nos. TX90050349, TE92111047, and TE93060211; Petitions of MCI, Sprint and AT&T for Authorization of IntraLATA Competition and Elimination of Compensation; Rebuttal Testimony on Behalf of MCI.

New Mexico:

September 28, 1987; Docket No. 87_61_TC; Application of MCI for a Certificate of Public Convenience and Necessity; Direct Testimony on Behalf of MCI.

August 30, 1996: Docket No. 95-572-TC; Petition of AT&T for IntraLATA Equal Access; Rebuttal Testimony on Behalf of MCI.

September 16, 2002; Utility Case No. 3495, Phase B; Consideration of Costing and Pricing Rules for OSS, Collocation, Shared Transport, Nonrecurring Charges, Spot Frames, Combination of Network Elements and Switching; Direct Testimony on Behalf of the Staff of the New Mexico Public Regulation Commission.

February 9, 2004; Case Nos. 03-00403-UT and 03-00404-UT; Triennial Review Proceedings (Batch Hot Cut and Local Circuit Switching); Testimony on Behalf of WorldCom, Inc. (MCI).

May 11, 2004; Case No. 00108-UT; Regarding Unfiled Agreements between Qwest Corporation and Competitive Local Exchange Carriers; Testimony on Behalf of Time Warner Telecom

New York:

April 30, 1992; Case 28425; Comments of MCI Telecommunications Corporation on IntraLATA Presubscription.

June 8, 1992; Case 28425; Reply Comments of MCI Telecommunications Corporation on IntraLATA Presubscription.

North Carolina:

August 4, 2000; Docket No. P779 SUB4; Petition of Level (3) Communications, LLC for Arbitration with Bell South; Direct Testimony on Behalf of Level (3) Communications, LLC.

September 18, 2000; Docket No. P779 SUB4; Petition of Level (3) Communications, LLC for Arbitration with Bell South; Rebuttal Testimony on Behalf of Level (3) Communications, LLC.

October 18, 2000; Docket No. P-886, SUB 1; Petition of Adelphia Business Solutions of North Carolina, LP for Arbitration with BellSouth; Direct Testimony on Behalf of Adelphia.

December 8, 2000; Docket No. P-886, SUB 1; Petition of Adelphia Business Solutions of North Carolina, LP for Arbitration with BellSouth; Rebuttal Testimony on Behalf of Adelphia.

North Dakota:

June 24, 1991; Case No. PU-2320-90-183 (Implementation of SB 2320 -- Subsidy Investigation); Direct Testimony on Behalf of MCI.

October 24, 1991; Case No. PU-2320-90-183 (Implementation of SB 2320 -- Subsidy Investigation); Rebuttal Testimony on Behalf of MCI.

December 4, 2002; Case No. PU-2065-02-465; Petition of Level 3 for Arbitration with SRT Communications Cooperative; Direct Testimony on Behalf of Level (3) Communications, LLC.

May 2, 2003; Case No. PU-2342-01-296; Qwest Corporation Price Investigation; Direct Testimony on Behalf of the CLEC Coalition (US Link, Inc., VAL-ED Joint Venture LLP d/b/a 702 Communications, McLeodUSA Telecommunications, Inc. and IdeaOne Telecom Group, LLC).

Ohio:

February 26, 2004; Case No. 04-35-TP-COI; In the Matter of the Implementation of the FCC's Triennial Review Regarding Local Circuit Switching in the Cincinnati Bell Telephone Company's Mass Market; Direct Testimony on Behalf of AT&T.

Oklahoma:

April 2, 1992; Cause No. 28713; Application of MCI for Additional CCN Authority to Provide IntraLATA Services; Direct Testimony on Behalf of MCI.

June 22, 1992; Cause No. 28713; Application of MCI for Additional CCN Authority to Provide IntraLATA Services; Rebuttal Testimony on Behalf of MCI.

Oregon:

October 27, 1983; Docket No. UT 9; Pacific Northwest Bell Telephone Company Business Measured Service; Direct Testimony on Behalf of the Public Utility Commissioner of Oregon.

April 23, 1984; Docket No. UT 17; Pacific Northwest Bell Telephone Company Business Measured Service; Direct Testimony on Behalf of the Public Utility Commissioner of Oregon.

May 7, 1984; Docket No. UT 17; Pacific Northwest Bell Telephone Company Business Measured Service; Rebuttal Testimony on Behalf of the Public Utility Commissioner of Oregon.

October 31, 1986; Docket No. AR 154; Administrative Rules Relating to the Universal Service Protection Plan; Rebuttal Testimony on Behalf of MCI.

September 6, 1996; Docket ARB3/ARB6; Petition of MCI for Arbitration with U S WEST Communications, Inc.; Direct Testimony on Behalf of MCI.

October 11, 1996; Docket No. ARB 9; Interconnection Contract Negotiations Between MCImetro and GTE; Direct Testimony on Behalf of MCI.

November 5, 1996; Docket No. ARB 9; Interconnection Contract Negotiations Between MCImetro and GTE; Rebuttal Testimony on Behalf of MCI.

November 6, 2002; Docket No. UM 1058; Investigation into the Use of Virtual NPA/NXX Calling Patterns; Comments/Presentation on Behalf of Level (3) Communications, LLC.

Pennsylvania:

December 9, 1994; Docket No. I-00940034; Investigation Into IntraLATA Interconnection Arrangements (Presubscription); Direct Testimony on Behalf of MCI.

September 5, 2002; Docket No. C-20028114; Level 3 Communications, LLC v. Marianna & Scenery Hill Telephone Company; Direct Testimony on Behalf of Level (3) Communications, LLC.

Rhode Island:

April 30, 1993; Docket No. 2089; Dialing Pattern Proposal Made by the New England Telephone Company; Direct Testimony on Behalf of MCI.

South Carolina:

October 2000; Docket No. 2000-0446-C; US LEC of South Carolina Inc. Arbitration with BellSouth Telecommunications; Direct Testimony on Behalf of US LEC.

November 22, 2000; Docket No. 2000-516-C; Adelphia Business Solutions of South Carolina, Inc. Arbitration with BellSouth Telecommunications; Direct Testimony on Behalf of Adelphia.

December 14, 2000; Docket No. 2000-516-C; Adelphia Business Solutions of South Carolina, Inc. Arbitration with BellSouth Telecommunications; Rebuttal Testimony on Behalf of Adelphia.

South Dakota:

November 11, 1987; Docket No. F_3652_12; Application of Northwestern Bell Telephone Company to Introduce Its Contract Toll Plan; Direct Testimony on Behalf of MCI.

May 27, 2003; Docket No. TC03-057; Application of Qwest to Reclassify Local Exchange Services as Fully Competitive; Direct Testimony on Behalf of WorldCom, Inc., Black Hills FiberCom and Midcontinent Communications.

Tennessee:

January 31, 2001; Petition of Adelphia Business Solutions for Arbitration with BellSouth Telecommunications; Direct Testimony on Behalf of Adelphia.

February 7, 2001; Petition of Adelphia Business Solutions for Arbitration with BellSouth Telecommunications; Rebuttal Testimony on Behalf of Adelphia.

Texas:

June 5, 2000; PUC Docket No. 22441; Petition of Level 3 for Arbitration with Southwestern Bell Telephone Company; Direct Testimony on Behalf of Level (3) Communications, LLC.

June 12, 2000; PUC Docket No. 22441; Petition of Level 3 for Arbitration with Southwestern Bell Telephone Company; Rebuttal Testimony on Behalf of Level (3) Communications, LLC.

October 10, 2002; PUC Docket No. 26431; Petition of Level 3 for Arbitration with CenturyTel of Lake Dallas, Inc. and CenturyTel of San Marcos, Inc.; Direct Testimony on Behalf of Level (3) Communications, LLC.

October 16, 2002; PUC Docket No. 26431; Petition of Level 3 for Arbitration with CenturyTel of Lake Dallas, Inc. and CenturyTel of San Marcos, Inc.; Reply Testimony on Behalf of Level (3) Communications, LLC.

July 19, 2004; PUC Docket No. 28821; Arbitration of Non-costing Issues for Successor Interconnection Agreement to the Texas 271 Agreement; Direct Testimony on Behalf of KMC Telecom III, L.L.C, KMC Telecom V, Inc. (d/b/a KMC Network Services, Inc.), and KMC Data, L.L.C.

August 23, 2004; PUC Docket No. 28821; Arbitration of Non-costing Issues for Successor Interconnection Agreement to the Texas 271 Agreement; Rebuttal Testimony on Behalf of KMC Telecom III, L.L.C, KMC Telecom V, Inc. (d/b/a KMC Network Services, Inc.), and KMC Data, L.L.C.

Utah:

November 16, 1987; Case No. 87_049_05; Petition of the Mountain State Telephone and Telegraph Company for Exemption from Regulation of Various Transport Services; Direct Testimony on Behalf of MCI.

July 7, 1988; Case No. 83_999_11; Investigation of Access Charges for Intrastate InterLATA and IntraLATA Telephone Services; Direct Testimony on Behalf of MCI.

November 8, 1996; Docket No. 96-095-01; MCImetro Petition for Arbitration with USWC Pursuant to 47 U.S.C. Section 252; Direct Testimony on Behalf of MCI.

November 22, 1996; Docket No. 96-095-01; MCImetro Petition for Arbitration with USWC Pursuant to 47 U.S.C. Section 252; Rebuttal Testimony on Behalf of MCI.

September 3, 1997; Docket No. 97-049-08; USWC Rate Case; Surrebuttal Testimony on Behalf of MCI.

September 29, 1997; Docket No. 97-049-08; USWC Rate Case; Revised Direct Testimony on Behalf of MCI.

February 2, 2001; Docket No. 00-999-05; In the Matter of the Investigation of Inter-Carrier Compensation for Exchanged ESP Traffic; Direct Testimony on Behalf of Level 3 Communications, LLP.

January 13, 2004; Docket No. 03-999-04; In the Matter of a Proceeding to Address Actions Necessary to Respond to the FCC's Triennial Review Order; Direct Testimony on Behalf of WorldCom, Inc. (MCI).

Washington:

September 27, 1988; Docket No. U-88-2052-P; Petition of Pacific Northwest Bell Telephone Company for Classification of Services as Competitive; Direct Testimony on Behalf of MCI.

October 11, 1996; Docket No. UT-96-0338; Petition of MCImetro for Arbitration with GTE Northwest, Inc., Pursuant to 47 U.S.C.252; Direct Testimony on Behalf of MCI.

November 20, 1996; Docket No. UT-96-0338; Petition of MCImetro for Arbitration with GTE Northwest, Inc., Pursuant to 47 U.S.C.252; Rebuttal Testimony on Behalf of MCI.

January 13, 1998; Docket No. UT-97-0325;. Rulemaking Workshop re Access Charge Reform and the Cost of Universal Service; Comments and Presentation on Behalf of MCI.

December 21, 2001; Docket No. UT-003013, Part D; Continued Costing and Pricing of Unbundled Network Elements, Transport, and Termination; Direct Testimony on Behalf of WorldCom, Inc.

October 18, 2002; Docket No. UT-023043; Petition of Level 3 for Arbitration with CenturyTel of Washington, Inc.; Direct Testimony on Behalf of Level (3) Communications, LLC.

November 1, 2002; Docket No. UT-023043; Petition of Level 3 for Arbitration with CenturyTel of Washington, Inc.; Rebuttal Testimony on Behalf of Level (3) Communications, LLC.

January 31, 2003; Docket No. UT-021569; Developing an Interpretive or Policy Statement relating to the Use of Virtual NPA/NXX Calling Patterns; Comments on Behalf of WorldCom, Inc. and KMC Telecom.

May 1, 2003; Docket No. UT-021569; Developing an Interpretive or Policy Statement relating to the Use of Virtual NPA/NXX Calling Patterns; Workshop Participation on Behalf of MCI, KMC Telecom, and Level (3) Communications, LLC.

August 13, 2003; Docket No. UT-030614; In the Matter of the Petition of Qwest Corporation for Competitive Classification of Basic Exchange Telecommunications Services; Direct Testimony on Behalf of MCI, Inc.

August 29, 2003; UT-030614; In the Matter of the Petition of Qwest Corporation for Competitive Classification of Basic Exchange Telecommunications Services; Rebuttal Testimony on Behalf of MCI, Inc.

September 13, 2004; Docket No. UT-033011; In the Matter of Washington Utilities and Transportation Commission, Petitioners, v. Advanced Telecom Group, Inc., et al, Respondents; Direct Testimony on Behalf of Time Warner Telecom of Washington, LLC.

West Virginia:

October 11, 1994; Case No. 94-0725-T-PC; Bell Atlantic - West Virginia Incentive Regulation Plan; Direct Testimony on Behalf of MCI.

June 18, 1998; Case No. 97-1338-T-PC; Petition of WorldCom, Inc. for Approval to Transfer Control of MCI Communications Corporation to WorldCom, Inc.; Rebuttal Testimony on Behalf of MCI.

Wisconsin:

October 31, 1988; Docket No. 05_TR_102; Investigation of Intrastate Access Costs, Settlements, and IntraLATA Access Charges; Direct Testimony on Behalf of MCI.

November 14, 1988; Docket No. 05_TR_102; Investigation of Intrastate Access Costs, Settlements, and IntraLATA Access Charges; Rebuttal Testimony on Behalf of MCI.

December 12, 1988; Docket No. 05_TI_116; In the Matter of Provision of Operator Services; Rebuttal Testimony on Behalf of MCI.

March 6, 1989; Docket No. 6720_TI_102; Review of Financial Data Filed by Wisconsin Bell, Inc.; Direct Testimony on Behalf of MCI.

May 1, 1989; Docket No. 05_NC_100; Amendment of MCI's CCN for Authority to Provide IntraLATA Dedicated Access Services; Direct Testimony on Behalf of MCI.

May 11, 1989; Docket No. 6720_TR_103; Investigation Into the Financial Data and Regulation of Wisconsin Bell, Inc.; Rebuttal Testimony on Behalf of MCI.

July 5, 1989; Docket No. 05-TI-112; Disconnection of Local and Toll Services for Nonpayment -- Part A; Direct Testimony on Behalf of MCI.

July 5, 1989; Docket No. 05-TI-112; Examination of Industry Wide Billing and Collection Practices -- Part B; Direct Testimony on Behalf of MCI.

July 12, 1989; Docket No. 05-TI-112; Rebuttal Testimony in Parts A and B on Behalf of MCI.

October 9, 1989; Docket No. 6720-TI-102; Review of the WBI Rate Moratorium; Direct Testimony on Behalf of MCI.

November 17, 1989; Docket No. 6720-TI-102; Review of the WBI Rate Moratorium; Rebuttal Testimony on Behalf of MCI.

December 1, 1989; Docket No. 05-TR-102; Investigation of Intrastate Access Costs, Settlements, and IntraLATA Access Charges; Direct Testimony on Behalf of MCI.

April 16, 1990; Docket No. 6720-TR-104; Wisconsin Bell Rate Case; Direct Testimony of Behalf of MCI.

October 1, 1990; Docket No. 2180-TR-102; GTE Rate Case and Request for Alternative Regulatory Plan; Direct Testimony on Behalf of MCI.

October 15, 1990; Docket No. 2180-TR-102; GTE Rate Case and Request for Alternative Regulatory Plan; Rebuttal Testimony on Behalf of MCI.

November 15, 1990; Docket No. 05-TR-103; Investigation of Intrastate Access Costs and Intrastate Access Charges; Direct Testimony on Behalf of MCI.

April 3, 1992; Docket No. 05-NC-102; Petition of MCI for IntraLATA 10XXX 1+ Authority; Direct Testimony on Behalf of MCI.

September 30, 2002; Docket No. 05-MA-130; Petition of Level 3 for Arbitration with CenturyTel; Direct Testimony on Behalf of Level (3) Communications, LLC.

October 9, 2002; Docket No. 05-MA-130; Petition of Level 3 for Arbitration with CenturyTel; Reply Testimony on Behalf of Level (3) Communications, LLC.

September 1, 2004; Docket No. 05-MA-135; Petition of Level 3 for Arbitration with Wisconsin Bell, Inc. d/b/a/ SBC Wisconsin; Direct Testimony on Behalf of Level (3) Communications, LLC.

Wyoming:

June 17, 1987; Docket No. 9746 Sub 1; Application of MCI for a Certificate of Public Convenience and Necessity; Direct Testimony on Behalf of MCI.

May 19, 1997; Docket No. 72000-TC-97-99; In the Matter of Compliance with Federal Regulations of Payphones; Oral Testimony on Behalf of MCI.

Comments Submitted to the Federal Communications Commission and/or the Department of Justice

March 6, 1991; Ameritech Transmittal No. 518; Petition to Suspend and Investigate on Behalf of MCI re Proposed Rates for OPTINET 64 Kbps Service.

April 17, 1991; Ameritech Transmittal No. 526; Petition to Suspend and Investigate on Behalf of MCI re Proposed Flexible ANI Service.

August 30, 1991; Ameritech Transmittal No. 555; Petition to Suspend and Investigate on Behalf of MCI re Ameritech Directory Search Service.

September 30, 1991; Ameritech Transmittal No. 562; Petition to Suspend and Investigate on Behalf of MCI re Proposed Rates and Possible MFJ Violations Associated with Ameritech's OPTINET Reconfiguration Service (AORS).

October 15, 1991; CC Docket No. 91-215; Opposition to Direct Cases of Ameritech and United (Ameritech Transmittal No. 518; United Transmittal No. 273) on Behalf of MCI re the introduction of 64 Kbps Special Access Service.

November 27, 1991; Ameritech Transmittal No. 578; Petition to Suspend and Investigate on Behalf of MCI re Ameritech Directory Search Service.

September 4, 1992; Ameritech Transmittal No. 650; Petition to Suspend and Investigate on Behalf of MCI re Ameritech 64 Clear Channel Capability Service.

February 16, 1995; Presentation to FCC Staff on the Status of Intrastate Competition on Behalf of MCI.

November 9, 1999; Comments to FCC Staff of Common Carrier Bureau on the Status of OSS Testing in Arizona on Behalf of MCI WorldCom, Inc.

November 9, 1999; Comments to the Department of Justice (Task Force on Telecommunications) on the Status of OSS Testing in Arizona and the USWC Collaborative on Behalf of MCI WorldCom, Inc.

Presentations Before Legislative Bodies:

April 8, 1987; Minnesota; Senate File 677; Proposed Deregulation Legislation; Comments before the House Committee on Telecommunications.

October 30, 1989; Michigan; Presentation Before the Michigan House and Senate Staff Working Group on Telecommunications; "A First Look at Nebraska, Incentive Rates and Price Caps," Comments on Behalf of MCI.

May 16, 1990; Wisconsin; Comments Before the Wisconsin Assembly Utilities Committee Regarding the Wisconsin Bell Plan for Flexible Regulation, on Behalf of MCI.

March 20, 1991; Michigan; Presentation to the Michigan Senate Technology and Energy Committee re SB 124 on behalf of MCI.

May 15, 1991; Michigan; Presentation to the Michigan Senate Technology and Energy Commission and the House Public Utilities Committee re MCI's Building Blocks Proposal and SB 124/HB 4343.

March 8, 2000; Illinois; Presentation to the Environment & Energy Senate Committee re Emerging Technologies and Their Impact on Public Policy, on Behalf of MCI WorldCom, Inc.

February 19, 2004; Presentation to the Iowa Senate Committee Regarding House Study Bill 622/Senate Study Bill 3035; Comments on Behalf of MCI.

Presentations Before Industry Groups -- Seminars:

May 17, 1989; Wisconsin Public Utility Institute -- Telecommunications Utilities and Regulation; May 15-18, 1989; Panel Presentation -- Interexchange Service Pricing Practices Under Price Cap Regulation; Comments on Behalf of MCI.

July 24, 1989; National Association of Regulatory Utility Commissioners -- Summer Committee Meeting, San Francisco, California. Panel Presentation -- Specific IntraLATA Market Concerns of Interexchange Carriers; Comments on Behalf of MCI.

May 16, 1990; Wisconsin Public Utility Institute -- Telecommunications Utilities and Regulation; May 14-18, 1990; Presentation on Alternative Forms of Regulation.

October 29, 1990; Illinois Telecommunications Sunset Review Forum; Two Panel Presentations: Discussion of the Illinois Commerce Commission's Decision in Docket No. 88-0091 for the Technology Working Group; and, Discussion of the Treatment of Competitive Services for the Rate of Return Regulation Working Group; Comments on Behalf of MCI.

May 16, 1991; Wisconsin Public Utility Institute -- Telecommunications Utilities and Regulation Course; May 13-16, 1991; Participated in IntraLATA Toll Competition Debate on Behalf of MCI.

November 19, 1991; TeleStrategies Conference -- "Local Exchange Competition: The $70 Billion Opportunity." Presentation as part of a panel on "IntraLATA 1+ Presubscription" on Behalf of MCI.

July 9, 1992; North Dakota Association of Telephone Cooperatives Summer Conference, July 8-10, 1992. Panel presentations on "Equal Access in North Dakota: Implementation of PSC Mandate" and "Open Network Access in North Dakota" on Behalf of MCI.

December 2-3, 1992; TeleStrategies Conference -- "IntraLATA Toll Competition -- A Multi-Billion Dollar Market Opportunity." Presentations on the interexchange carriers' position on intraLATA dialing parity and presubscription and on technical considerations on behalf of MCI.

March 14-17, 1993; NARUC Introductory Regulatory Training Program; Panel Presentation on Competition in Telecommunications on Behalf of MCI.

May 13-14, 1993; TeleStrategies Conference -- "IntraLATA Toll Competition -- Gaining the Competitive Edge"; Presentation on Carriers and IntraLATA Toll Competition on Behalf of MCI.

May 23-26, 1994; The 12th Annual National Telecommunications Forecasting Conference; Represented IXCs in Special Town Meeting Segment Regarding the Convergence of CATV and Telecommunications and other Local Competition Issues.

March 14-15, 1995; "The LEC-IXC Conference"; Sponsored by Telecommunications Reports and Telco Competition Report; Panel on Redefining the IntraLATA Service Market -- Toll Competition, Extended Area Calling and Local Resale.

August 28-30, 1995; "Phone+ Supershow '95"; Playing Fair: An Update on IntraLATA Equal Access; Panel Presentation.

August 29, 1995; "TDS Annual Regulatory Meeting"; Panel Presentation on Local Competition Issues.

December 13-14, 1995; "NECA/Century Access Conference"; Panel Presentation on Local Exchange Competition.

October 23, 1997; "Interpreting the FCC Rules of 1997"; The Annenberg School for Communication at the University of Southern California; Panel Presentation on Universal Service and Access Reform.

February 5-6, 2002; "Litigating Telecommunications Cost Cases and Other Sources of Enlightenment"; Educational Seminar for State Commission and Attorney General Employees on Litigating TELRIC Cases; Denver, Colorado.

February 19-20, 2003; Seminar for the New York State Department of Public Service entitled "Emerging Technologies and Convergence in the Telecommunications Network". Presented with Ken Wilson of Boulder Telecommunications Consultants, LLC.

July 25, 2003; National Association of Regulatory Utility Commissioners Summer Committee Meetings; Participated in Panel regarding "Wireless Substitution of Wireline – Policy Implications."

EXHIBIT TJG-2

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-024

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 024

Does Qwest offer any kind of foreign exchange ("FX") service in Arizona? If so, please provide a service description (including, but not limited to, tariff pages) for each such service.

RESPONSE:

Yes. Qwest offers Foreign Exchange (FX) service in Arizona. Qwest does not actively promote or advertise FX service, therefore, there is no additional material available for FX, other than the tariff, which is provided with this response as Attachment A.

Respondent: Larry Brotherson

ARIZONA
DOCKET NO. T-01051B-05-0350
and
T-03654A-05-0350
L3C 01-024
ATTACHMENT A

5. SERVICES

5.2 SERVICE DESCRIPTIONS (Cont'd)

5.2.6 FOREIGN EXCHANGE SERVICE

A. Basic Description

Foreign Exchange (FX) Service provides dial tone from a wire center in an exchange from which the customer is not normally served. This service is available to either residence or business customers. While this service is available for resale by authorized resellers of FX Service, it may not be used as a vehicle for the sale of toll services.

B. Terms and Conditions

1. Where facility conditions permit, the Company will provide FX Service at the rates shown herein. Where FX Service is furnished at remote or isolated locations, or where facilities are not available, or where unusual costs are involved, additional nonrecurring, construction, and/or monthly charges may apply.

2. FX Service is normally furnished to a single customer premises. Where facility conditions permit, up to two additional points may be added.

3. When a customer subscribes to local service(s) and requests an extension in a foreign exchange, a Network Access Channel, Channel Performance and Transport Mileage, as specified for FX Service, will apply to the extension.

4. FX Service is not furnished in connection with party line or Smart Public Access Line Service.

5. Directory Listings

   a. One directory listing will be provided for FX Service in the exchange where the customer's dial tone is obtained.

   b. Additional listings will be furnished at regular rates and charges as specified in the Exchange and Network Services Price Cap Tariff.

   c. Listings in other directories will be furnished at the regular rates for foreign listings as specified in the Exchange and Network Services Price Cap Tariff.

5. SERVICES

5.2 SERVICE DESCRIPTIONS
5.2.6 FOREIGN EXCHANGE SERVICE

B. Terms and Conditions (Cont'd)

6. FX Service will not be provided on the same circuit as Foreign Central Office (FCO) Service.

7. Message toll rates are applicable in connection with FX Service when calls are placed to telephone numbers outside the local calling area of the dial tone wire center.

8. Rates, terms and conditions associated with Directory Assistance apply and are set forth in the Exchange and Network Services Price Cap Tariff.

9. Use of Service limitations, as delineated in the Exchange and Network Services Price Cap Tariff, apply to FX Service.

10. FX Service provides unlimited access to and from the local calling area of the foreign wire center.

11. Rates and charges for all Optional Features and Functions are as specified in the Exchange and Network Services Price Cap Tariff.

12. FX Service will obtain a line or trunk from the Exchange and Network Services Price Cap Tariff. The Network Access Channel is also applicable.

13. The rates for individual line service and PBX trunks are those in effect in the serving (foreign) exchange.

5. SERVICES

5.2 SERVICE DESCRIPTIONS
5.2.6 FOREIGN EXCHANGE SERVICE

B. Terms and Conditions (Cont'd)

14. Locality, suburban or exchange zone rate area increments (ZNA/) for any main station or PBX located outside the base rate area of the normal exchange do not apply to FX Service.

15. In the case of Centrex main stations, the basic secondary location Centrex station rate schedule will apply at each FX station location in addition to mileage and/or incremental charges.

16. Transport Mileage will be measured and rated from the customer's serving wire center to the remote wire center.

17. Rate Elements

- Exchange Service Element
- Network Access Channel (NAC)
- Channel Performance (CP)
- Transport Mileage (TM)

C. Service Information

SERVICE	CLASS OF SERVICE	NETWORK CHANNEL CODE
Foreign Exchange Line	XBAX+, XRAX+, FXGT+, FRQT+	UC
Foreign Exchange Trunk	XBAX+,FXGT+	UD

EXHIBIT TJG-3

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-023

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 023

Does Qwest contend that the costs it incurs in originating a call to a Level 3 customer differ in any respect whatsoever based upon the physical location of the Level 3 customer? If Qwest responds to the above question with anything other than an unequivocal "no," please provide a detailed explanation of how the location of Level 3's customer on Level 3's side of the POI could affect Qwest's costs. Include in that explanation all cost studies and any other documentation in your possession that you believe provides support for your position those CLECs to other carriers. If your answer is anything other than an unqualified admission, please describe in detail your qualification or denial, and provide any information or evidence which supports your qualification or denial.

RESPONSE:

No. The costs Qwest incurs do not vary based upon the physical location of the Level 3 customer. Qwest's overall costs incurred to complete a call, however, vary depending on the originating voice caller's location and the location of the Level 3 POI.

Respondent: Larry Brotherson

EXHIBIT TJG-4

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-082

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 082

Please admit that Qwest's end office and tandem switches do not store any information indicating the address or location of any end user's premises. If your answer is anything other than an unqualified admission, please describe in detail your qualification or denial, and provide any information or evidence which supports your qualification or denial.

RESPONSE:

Qwest can neither admit nor deny this request.

The telephone numbers that Qwest uses for call routing purposes are assigned to its end users based on NPA-NXXs associated with specific LCAs in the state. Thus, Qwest's end office and tandem switches process calls based on information that that in most, but not all, cases identifies the general geographic area within which the end users are located. Thus, while switches do not route calls based on specific addresses stored within the switches, the routing and connecting function of switches are based on information concerning a customer's address and location located in other company databases. Furthermore, installation facts, repair facts, billing information and other related information related to specific customers are contained in company databases that are based on customer address and location information.

EXHIBIT TJG-5

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-063S1

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 063S1

Please admit that Qwest currently offers Qwest @ OneFIexTM Voice over Internet Protocol services within Arizona which provide customers "the option of choosing up to five additional phone numbers (virtual numbers) that will ring to your phone. Calls placed to a virtual phone number will ring the same phone as calls placed to your primary phone number. A virtual phone number can be beneficial if you have colleagues, friends or family living outside your local calling area. You could request a virtual number within their area and the people who live in that local calling area can call you for a price of a local phone call" If your answer is anything other than an unqualified admission, please, describe in detail your qualification or denial, and provide any information or evidence which supports your qualification or denial.

RESPONSE:

Qwest objects to this request on the grounds that it is an ambiguous and compound request and as such is an inappropriate request to admit.

Without waiving the foregoing objections, Qwest will supplement this response as soon as possible.

SUPPLEMENTAL RESPONSE dated 7/06/05:

Without waiving the foregoing objections, Qwest admits this request as to QCC but denies it as to Qwest Corporation.

EXHIBIT TJG-6

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-065

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 065

Please admit that Qwest charges approximately $30 per month for its Internet phone service, plus 5 cents a minute for long-distance calls with a $2.99 monthly fee. Please admit that the offering includes a full range of features, such as caller ID and voice mail. If your answer is anything

RESPONSE:

Qwest objects to this request on the grounds that it is an ambiguous and compound request and as such is an inappropriate request to admit.

Without waiving the foregoing objections, Qwest provides the following response:

Denied as to Qwest Corporation. Admitted with regard to QCC. The offering described in the request is one of the consumer offerings of QCC.

EXHIBIT
L-5
admitted

ARIZONA CORPORATION COMMISSION

DOCKET NOS. T-3654A-05-0350; T-01051B-05-0350

IN THE MATTER OF LEVEL 3 COMMUNICATIONS, LLC'S PETITION FOR ARBITRATION PURSUANT TO SECTION 252(b) OF THE COMMUNICATIONS ACT OF 1934, AS AMENDED BY THE TELECOMMUNICATIONS ACT OF 1996, AND THE APPLICABLE STATE LAWS FOR RATES, TERMS, AND CONDITIONS OF INTERCONNECTION WITH QWEST CORPORATION

REBUTTAL TESTIMONY OF TIMOTHY J GATES
ON BEHALF OF LEVEL 3 COMMUNICATIONS, LLC

August 15, 2005

TABLE OF CONTENTS

INTRODUCTION 1
DISPUTED ISSUE 1: COSTS OF INTERCONNECTION 1
Issue IA Interconnection Responsibilities 2
Single POI 9
Issue 1D Transport Facilities 14
Level 3 Is Not the Cost Causer 18
Issue 1G Dispute Over Traffic Types 20
Issue 1H Relative Use Formula 26
Issue 1J NRCs for LIS Trunking 27
DISPUTED ISSUE 2: ALL TRAFFIC ON INTERCONNECTION TRUNKS 27
ESP EXEMPTION 32
VNXX TRAFFIC 36

INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Timothy J Gates. My business address is QSI Consulting, 819 Huntington Drive, Highlands Ranch, Colorado 80126.

Q. ARE YOU THE SAME TIMOTHY J GATES WHO FILED DIRECT TESTIMONY ON BEHALF OF LEVEL3 IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my testimony is to respond to the testimony of Qwest witnesses William R. Easton, Larry B. Brotherson and Philip Linse.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. My testimony is organized by issue and by Qwest witness being rebutted.

DISPUTED ISSUE 1: COSTS OF INTERCONNECTION

Q. PLEASE PROVIDE SOME CONTEXT FOR YOUR REBUTTAL TESTIMONY.

A. Level 3 and Qwest disagree on the network architecture for interconnection. The parties also disagree on who is responsible for the costs on each side of the POI. What Level 3 is requesting, however, is the same architecture that is in place in at least 36 other states. Level 3's proposed language was acceptable to SBC, Verizon and BellSouth. As such, Qwest's unwillingness to accept Level 3's contact language

has nothing to do with technology or an unreasonable request from Level 3. Instead, Qwest simply refuses to agree to arrangements that the industry has put in place all around the country. Qwest's language and positions should be rejected because they have no basis in engineering, economics or public policy. Level 3's language and positions should be adopted because they are workable and fair.

Issue IA Interconnection Responsibilities

Q. PLEASE ADDRESS THE DIRECT TESTIMONY OF MR. WILLIAM R. EASTON.

A. At various points in Mr. Easton's testimony he states that "Qwest is allowed to recover costs that are just and reasonable and based on the cost of providing interconnection." (See, for example, Direct of Easton at 5) This statement is part of Qwest's position on Issue 1: Costs of Interconnection. As Mr. Easton correctly points out, "There is presently no dispute as to where the interconnection occurs or how many points of interconnection there will be." (Direct of Easton at 3) The dispute relates primarily to who pays for interconnection costs on each side of the POI.

Q. CAN QWEST CHARGE LEVEL 3 FOR COSTS OF GETTING QWEST ORIGINATED TRAFFIC TO THE POI FOR EXCHANGE WITH LEVEL 3?

A. No. The financial responsibilities for interconnection for the exchange of traffic should be borne solely by each carrier on its side of the POI. Carriers should not be allowed to shift their costs of transporting traffic originating on their networks to their

competitors. In other words, sound economics dictate that each carrier should be responsible for the costs of delivering its traffic to interconnecting carriers for termination at a single point of interconnection per LATA. Several Federal Circuit Courts of Appeal have specifically affirmed this. For example, as the Fourth Circuit stated in a dispute between SBC and MCI on this very point,

> In sum, we are left with an unambiguous rule, the legality of which is unchallenged, that prohibits the charge that SBC seeks to impose. Rule 703(b) is unequivocal in prohibiting LECs from levying charges for traffic originating on their own networks, and, by its own terms, admits of no exceptions. Although we find some surface appeal in SBC's suggestion that the charge here is not reciprocal compensation, but rather the permissible shifting of costs attending interconnection, the FCC, as noted above, has endorsed cost-shifting related to interconnection only as it relates to the one-time costs of physical linkage, and in doing so, expressly declined the invitation to extend the definition of "interconnection" to include the transport and termination of traffic.[1]

These decisions flow from the simple technical reality that interconnection simply means linking up networks. It is also consistent with the accepted economic expedient of cost-causation. Cost shifting is unnecessary, uneconomic and anti-competitive. This point is recognized by the FCC and by the federal circuit courts of appeal that have addressed the issue in the context of interconnection agreements, to wit: each carrier pays its own costs of exchanging traffic.

Q. AT PAGE SIX OF MR. EASTON'S DIRECT, HE STATES, "IT MAKES SENSE THAT THE COST CAUSER COMPENSATE QWEST FOR INTERCONNECTION AND TRANSPORT COSTS. IF THE COST CAUSER

---

[1] *MCImetro Access Transmission Services, Inc. v. SBC Telecommunications, Inc.*, No. 03-1238 2003 US App. LEXIS 25782, *24-5 (4th Cir. Dec 18, 2003).

(LEVEL 3) DOES NOT PAY, THEN QWEST END USERS WOULD HAVE TO BEAR THE COST." PLEASE COMMENT.

A. First of all, Mr. Easton is completely wrong to suggest that Level 3 is the cost causer. Never in the history of telecommunications regulation has a regulator determined that the terminating party is the cost causer. If Mr. Easton's upside down view of regulatory law and economics were accepted, Qwest would never pay a thing for calls its customers make to customers connected to other networks. Mr. Easton's suggestion that Level 3 is the cost causer because Level 3 seeks interconnection, and as such must pay for Qwest's costs on its side of the POI, is completely wrong.

Q. THE CALLS THAT QWEST ROUTES TO LEVEL 3'S POI ARE ORIGINATED BY QWEST CUSTOMERS, CORRECT?

A. Yes. These are calls originated by Qwest's local subscribers. Again, since it is the Qwest subscriber who originates the call, that subscriber is the cost causer, not Level 3. The Qwest customer pays Qwest for local service and that customer has the ability to dial an unlimited amount of local calls. One such call might be to an ISP who purchases local service from Level 3. Qwest is compensated by its customers for originating the call and getting the call to the POI. On the other side of the POI, Level 3 is responsible for terminating that call for Qwest to wherever Level 3's customer may be. Naturally, Qwest should compensate Level 3 for terminating the call.

Q. MR. EASTON STATES AT PAGE SIX OF HIS DIRECT THAT "QWEST'S END USERS SHOULD NOT HAVE TO BEAR THE BURDEN OF PAYING FOR LEVEL 3'S ISP SERVICE." DO YOU AGREE?

A. Yes. Qwest end users do not pay for "Level 3's ISP service" and would not pay for any aspect of Level 3 service under the Level 3 proposal. First of all, Level 3 is not providing ISP service; it is providing local connectivity for an ISP so that Qwest's customers can dial-up the ISP on a local basis. Second, Qwest's proposal would deny Level 3 any compensation for terminating calls originated by Qwest customers. As such, Qwest would get a free ride on Level 3's network for terminating these calls. Finally, in a complete reversal of sound principles of economics, FCC Rules and common carrier regulation generally, Qwest wants to impose access charges on the terminating carrier for calls originated by Qwest's customers.

Unlike traditional "interexchange services" Qwest's customers are not Level 3's customers for purposes of providing an interexchange telecommunications service. To the extent a Qwest customer places a locally dialed call that Qwest is statutorily required to hand off to Level 3 at the POI, Level 3 imposes no additional per minute of use charges for these calls. Accordingly, under no regulatory authority – save Qwest's self-serving attempt to create access charges where none could logically exist – may one carrier charge an interconnecting carrier switched access charges for calls that are not made to an IXC, and do not involve additional per minute of use charges. There is no economic relationship between the Qwest customer and Level 3 for the provision of an interexchange service, and the call is

locally dialed and handed off between the parties at the POI. Moreover, it is interesting to note that prior to the FCC's *ISP-Remand Order* the vast majority of state commissions examining ISP-bound traffic determined that it was local. Thus Qwest's cost shifting is an entirely transparent grab at intercarrier compensation; it is prima facie anticompetitive and certainly not consistent with the principle of cost causation.

Q. SO QWEST'S PROPOSAL WOULD NOT COMPENSATE LEVEL 3 FOR TERMINATING THE CALLS ORIGINATED BY QWEST CUSTOMERS AND ALSO CHARGE LEVEL 3 ORGINATING ACCESS FOR THOSE CALLS?

A. Yes. Qwest would be compensated by its own customers for the local service, but would charge Level 3 originating switched access charges for the same locally dialed calls.

Q. DOES QWEST AT LEAST AGREE TO PAY LEVEL 3 FOR TERMINATING CALLS ORIGINATED BY ITS CUSTOMERS?

A. No. As such, Level 3 would pay Qwest for calls originated by Qwest customers and receive no compensation for terminating Qwest originated traffic. This is completely unfair.

Q. DO LOCAL RATES COVER THE COST OF CARRYING THIS TRAFFIC TO THE POI OR DESIGNATED TRANSIT POINT?

A. Yes, but this does not refer just to Qwest's basic local rates. Local rates and revenues include not only the basic local rate, but other revenues from subscriber line charges,

vertical services (*i.e.,* call waiting, call forwarding, anonymous call rejection and other star code features), universal service surcharges, extended area service charges and the subsidies remaining in Qwest's access charges for intraLATA and interLATA toll. Average local revenues tend to be $40 to $50 per line per month.

Q. IF LEVEL 3 PAID QWEST TO TRANSPORT QWEST'S ORIGINATED TRAFFIC TO THE STATUTORILY REQUIRED SINGLE POI, WOULD QWEST BE DOUBLE RECOVERING ITS COSTS?

A. Yes. Qwest would be paid twice for the local traffic – once by its local subscribers and again through access charges paid by Level 3. Another benefit to Qwest would be that Level 3 would be denied compensation for terminating the calls handed off at the POI. Any reasonable person would recognize Qwest's proposal as being fundamentally unfair.

Q. DO QWEST'S LOCAL RATES (BASIC RATES, VERTICAL SERVICES, ETC.) COMPENSATE QWEST FOR ITS CUSTOMERS' USE OF THE LOCAL TELEPHONE NETWORK?

A. Yes.

Q. IS QWEST DEREGULATED IN ARIZONA?

A. Qwest, the Commission and the industry are in negotiations to settle the pending price cap litigation.[2] When that proceeding is settled, however, Qwest will have significant pricing flexibility. Qwest will enjoy significant market freedom including market regulation of its FX and ISP services, including its PRI, DID and other services that

---

[2] Docket Nos. T-01051B-03-0454, T-00000D-00-0672.

compete with Level 3's DID offering.[3] Under these circumstances it is inconceivable for Qwest to argue against Level 3's proposed interconnection and reciprocal compensation terms. Further, the suggestion that Qwest customers will have to pay higher rates if Level 3 does not pay access charges for Qwest originated local traffic is laughable. Qwest's proposal would result in double recovery of its costs and impose unwarranted costs on Qwest's competitor, while denying Level 3 any compensation for terminating Qwest traffic.

Q. ARE THERE OTHER ORDERS THAT SUPPORT YOUR POSITION ON WHICH PROVIDER IS RESPONSIBLE FOR GETTING ILEC ORIGINATED TRAFFIC TO THE POI?

A. Yes. I am sure there are many, but I will provide an example. In the FCC's Order in the Kansas/Oklahoma 271 proceeding, the FCC again referred to its rules for the proposition that an ILEC may not charge CLECs for traffic that originates on the ILEC network. Specifically, that order states:

> 235. Finally, we caution SWBT from taking what appears to be an expansive and out of context interpretation of findings we made in our *SWBT Texas Order* concerning its obligation to deliver traffic to a competitive LEC's point of interconnection. (Note 695) In our *SWBT Texas Order*, we cited to SWBT's interconnection agreement with MCI-WorldCom to support the proposition that SWBT provided carriers the option of a single point of interconnection. (Note 696) We did not, however, consider the issue of how that choice of interconnection would affect inter-carrier compensation arrangements. Nor did our decision to allow a single point of interconnection change an incumbent LEC's reciprocal compensation obligations under our current rules. (Note 697) For example, these rules preclude an

[3] Qwest has yet to respond to Level 3 Request No. 5 but in Iowa and other states Qwest admits that it offers PRI and DID services to customers, including ISPs.

> incumbent LEC from charging carriers for local traffic that originates on the incumbent LEC's network. (Note 698) These rules also require that an incumbent LEC compensate the other carrier for transport (Note 699) and termination (Note 700) for local traffic that originates on the network facilities of such other carrier. (Note 701)[4]

Note 698 in the above quote is a specific reference to Rule 51.703(b). It is clear, from this and other rulings, that the originating carrier may not charge a terminating carrier for the cost of transport, or for the facilities used to transport that traffic to the POI. By extension, it is clear that simply because a POI might be outside a local calling area, Qwest has no right to charge Level 3 for the cost of transport, or for the facilities used to transport the traffic from the local calling area to the POI.

Q. IF THE TRAFFIC WERE ALL ISP-BOUND, WOULD THAT CHANGE QWEST'S INTERCONNECTION OBLIGATIONS?

A. No. Regardless of the type of traffic Qwest's customers originate, the rates that Qwest charges those customers compensate Qwest for delivering the traffic to the POI.

Single POI

Q. THUS FAR YOU HAVE DISCUSSED THE PROPOSALS OF QWEST AND LEVEL 3 FOR COST RESPONSIBILITY ASSOCIATED WITH GETTING

---

[4] *In the Matter of Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell* Long *Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma,* CC Docket No. 00-217, FEDERAL COMMUNICATIONS COMMISSION, 16 FCC Rcd 6237; 2001 FCC LEXIS 1202; 23 Comm. Reg. (P & F) 299, **RELEASE-NUMBER:** FCC 01-29, January 22, 2001 Released; * Adopted January 19, 2001. (footnotes omitted)

THE TRAFFIC TO THE POI. HOW MANY POIS MUST LEVEL 3 ESTABLISH IN EACH LATA?

A. CLECs are only required to have a single POI in each LATA where they offer service. I discussed this at some length in my direct testimony. An example of the rulings on this important issue is found In SBC's Texas 271 proceeding, wherein the FCC stated in pertinent part,

> Section 251, and our implementing rules, require an incumbent LEC to allow a competitive LEC to interconnect at any technically feasible point. ***This means that a competitive LEC has the option to interconnect at only one technically feasible point in each LATA.***"[5] (emphasis added)

A similar finding was made in the Virginia WorldCom proceeding wherein that order reads in pertinent part,

> Under the Commission's rules, competitive LECs may request interconnection at any technically feasible point. ***This includes the right to request a single point of interconnection in a LATA.***[6] (emphasis added)

There is nothing in the Act or in the FCC orders that support Qwest's position that it may charge CLECs more for interconnection (through additional transport or facilities charges) if they choose to have only one POI per LATA. Indeed, the Act and FCC orders (such as the one cited above) conclude just the opposite.

Q. DOES QWEST AGREE THAT ONLY A SINGLE POI IS REQUIRED?

---

[5] Texas SBC 271 Proceeding; CC Docket No. 00-65; Released June 30, 2000; at ¶ 78.

[6] FCC Memorandum Opinion and Order, CC Docket Nos. 00-218, 00-249, 00-251; Released: July 17, 2002; at ¶52.

A. Not really. While Qwest claims to support the idea, their contract language belies their true intent because it entirely subverts the economic effect of a single POI. Qwest would have Level 3 pay access from every Qwest "local" calling area. Viewed in the light of the law, policy and economics behind this very simple rule, Qwest's language must be rejected.

Q. WHAT IS LEVEL 3'S PROPOSAL WITH RESPECT TO SINGLE POI LANGUAGE IN THE AGREEMENT?

A. Level 3's proposed language is as follows:

> 7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Telecommunications Including Telephone Exchange Service and Exchange Access traffic. Qwest will provide Interconnection at any Technically Feasible point within its network.
>
> 7.1.1.1 **Establishment of SPOI**: Qwest agrees to provide CLEC a Single Point of Interconnection (SPOI) in each Local Access Transport Area (LATA) for the exchange of all telecommunications traffic. The SPOI may be established at any mutually agreeable location within the LATA, or, at Level 3's sole option, at any technically feasible point on Qwest's network. Technically feasible points include but are not limited to Qwest's end offices, access tandem, and local tandem offices.
>
> 7.1.1.2 **Cost Responsibility.** Each Party is responsible for constructing, maintaining, and operating all facilities on its side of the SPOI, subject only to the payment of intercarrier compensation in accordance with Applicable Law. In accordance with FCC Rule 51.703(b), neither Party may assess any charges on the other Party for the origination of any telecommunications delivered to the other Party at the SPOI, except for Telephone Toll Service traffic outbound from one Party to the other when the other Party is acting in the capacity of a provider of Telephone Toll Service, to which originating access charges properly apply.
>
> 7.1.1.3 Facilities included/transmission rates. Each SPOI to be established under the terms of this Attachment shall be deemed to include any and all facilities necessary for the exchange of traffic between Qwest's and

Level 3's respective networks within a LATA. Each Party may use an Entrance Facility (EF), Expanded Interconnect Channel Termination (EICT), or Mid Span Meet Point of Interconnection (POI) and/or Direct Trunked Transport (DTT) at DS1, DS3 , OC3 or higher transmission rates as, in that Party's reasonable judgment, is appropriate in light of the actual and anticipated volume of traffic to be exchanged. If one Party seeks to establish a higher transmission rate facility than the other Party would establish, the other Party shall nonetheless reasonably accommodate the Party's decision to use higher transmission rate facilities.

7.1.1.4 Each Party Shall Charge Reciprocal Compensation for the Termination of Traffic to be carried. All telecommunications of all types shall be exchanged between the Parties by means of from the physical facilities established at Single Point of Interconnection Per LATA onto its Network Consistent With Section 51.703 of the FCC's Rules:

7.1.1.4.1 Level 3 may interconnect with Qwest at any technically feasible point on Qwest's network for the exchange of telecommunications traffic. Such technically feasible points include but are not limited to Qwest access tandems or Qwest local tandems. When CLEC is interconnected at the SPOI. separate trunk groups for separate types of traffic may be established in accordance with the terms hereof. No separate physical interconnection facilities, as opposed to separate trunk groups within SPOI facilities, shall be established except upon express mutual agreement of the Parties.

As you can see from the language above, Level 3 clearly addresses the single POI entitlement and the associated cost responsibility on each side of the POI. Qwest's language, however, completely ignores the single POI issue, and instead discussed trunking on its side of the POI.

Q. WHAT IS QWEST'S PROPOSED LANGUAGE FOR THIS SECTION OF THE AGREEMENT?

A. The Qwest proposal is as follows:

7.1.1 This Section describes the Interconnection of Qwest's network and CLEC's network for the purpose of exchanging Exchange Service (EAS/Local traffic), IntraLATA Toll carried solely by local exchange carriers and not by an IXC (IntraLATA LEC toll), ISP-Bound traffic, and Jointly Provided

> Switched Access (InterLATA and IntraLATA) traffic. Qwest will provide Interconnection at any Technically Feasible point within its network. Interconnection, which Qwest currently names "Local Interconnection Service" (LIS), is provided for the purpose of connecting End Office Switches to End Office Switches or End Office Switches to local or Access Tandem Switches for the exchange of Exchange Service (EAS/Local traffic); or End Office Switches to Access Tandem Switches for the exchange of IntraLATA LEC Toll or Jointly Provided Switched Access traffic. Qwest Tandem Switch to CLEC Tandem Switch connections will be provided where Technically Feasible. New or continued Qwest local Tandem Switch to Qwest Access Tandem Switch and Qwest Access Tandem Switch to Qwest Access Tandem Switch connections are not required where Qwest can demonstrate that such connections present a risk of Switch exhaust and that Qwest does not make similar use of its network to transport the local calls of its own or any Affiliate's End User Customers.

By requiring Level 3 to pay for facilities on the Qwest side of the POI, Qwest completely eliminates the purpose and benefits of the single POI entitlement. The single POI allows CLECs to enter the market without having to duplicate the ILEC legacy network technology or structure. Of course, this does not preclude the parties from voluntarily agreeing to establish whatever additional POIs they may choose in particular situations.

Q. DOES THE SINGLE POI ENTITLEMENT CHANGE YOUR UNDERSTANDING OF THE FCC'S MEANING OF LOCAL CALLING AREA?

A. Yes. By only requiring a single POI per LATA, the FCC has effectively defined the local calling area for interconnecting CLECs to be a LATA. From a competitive perspective this makes sense because it ensures that the incumbent cannot force upon the competitor costs that would make retail competition impossible. For CMRS providers, the local calling area is an MTA (major trading area) which in some cases

is larger than a state. For instance, in Arizona we have three LATAs and three MTAs (MTA 27, MTA 2 and MTA 39) although they are not coterminous. This is not to say that the single POI entitlement has changed the local calling areas established by the Commission, which are set for purposes of retail services - to the extent those services are still regulated. To constrain a competitor to retail service areas prescribed during a period of monopoly regulation of a single technology incumbent when the competitor wishes to offer larger local calling areas ensures that Iowa consumers will continue to pay higher, not lower rates, for the telecommunications services they purchase.

Issue 1D Transport Facilities

Q. AT PAGE 12 OF HIS TESTIMONY, MR. EASTON STATES THAT LEVEL 3 "...HAS AN OBLIGATION TO COMPENSATE QWEST FOR PROVIDING SERVICES WHICH ALLOW LEVEL 3 TO SERVE ITS ISP END USERS." PLEASE COMMENT.

A. Mr. Easton is wrong to suggest that Level 3 is responsible for Qwest's network on the Qwest side of the POI. This seems to be a recurring theme throughout Qwest's testimony. It is true that carriers share the cost of interconnection by bringing their originated traffic to the POI. It is not Level 3's responsibility, however, to pay Qwest for getting its originated traffic from Qwest end users to the POI. That is Qwest's responsibility. As the FCC has repeatedly stated and as affirmed by federal courts

nationwide Rule 51.703(b) requires that each carrier bear its costs on its side of the POI:

> (b) A LEC may not assess charges on any other telecommunications carrier for telecommunications traffic that originates on the LEC's network.

This language is very straight forward. We are talking about traffic that originates on Qwest's network. Qwest may not charge Level 3 for getting this traffic to the POI.

Q. DOES LEVEL 3'S PROPOSED LANGUAGE REFER TO RULES 703(B) AND 709?

A. Yes. Level 3's proposed language is as follows:

> 7.2.2.1.2.2. CLEC may order transport services from Qwest or from a third-party, including a third party that has leased the private line transport service facility from Qwest for purposes of network management and routing of traffic to/from the POI. Such transport provides a transmission path for the LIS trunk to deliver the originating Party's Exchange Service EAS/Local traffic to the terminating Party's End Office Switch or Tandem Switch for call termination. This Section is not intended to alter either Party's obligation under Section 251(a) of the Act or under Section 51.703 or 51.709 of the FCC's Rules.

As noted above, Mr. Easton suggests that this language indicates that "Level 3 refuses to acknowledge is that it has an obligation to compensate Qwest for providing the services which allow Level 3 to serve its ISP end users." Mr. Easton further complains about Level 3 language because "Compensation issues do not belong in this section ...." but Qwest's language specifically refers to the CLEC "purchasing" transport services from Qwest. Qwest's attempts to misconstrue economic principles and sound public policy simply belie their pecuniary motives.

Each of Qwest's propositions regarding single POI simply amount to requesting that the Commission protect Qwest from competition by forcing Qwest's competitors to mimic Qwest's network designs and costs. Qwest's positions are especially ironic when considered in light of the fact that the FCC relieved Qwest (and other ILECs) of the obligation to unbundle local switching because of the availability and use of newer more efficient technologies, such as that deployed by Level 3. To wit:

> As the Commission found in the Triennial Review Order, there has been a significant increase in competitive LEC circuit switch deployment over time, growing approximately 71 percent from 700 switches in 1999 to approximately 1,200 switches in 2003. Incumbent LEC data indicate that competitive carriers are serving over 3 million mass market lines with those switches. Further, pursuant to our "reasonably efficient competitor" standard, we consider competitive LECs' deployment of newer, more efficient switching technologies, such as packet switches. Incumbent LECs cite evidence that, in the time following the Triennial Review Order, ***competitive LECs have focused on deploying softswitch technology and packet switches. These switches are less expensive than traditional circuit switches and are more scalable.*** This evidence indicates that competitive LECs are not impaired in the deployment of competitive switches. As discussed below, we also find that competitive LECs are able to use switches, once deployed, to serve the mass market. (206)
>
> In addition, pursuant to the "reasonably efficient competitor" standard discussed above, we evaluate impairment based on the technology a reasonably efficient competitive LEC would deploy. ***Competitive LECs can rely on newer, more efficient technology than incumbent LECs (whose networks have been deployed over decades), such as packet switches. Further, the ability of competitive circuit switches to serve wider geographic regions reduces the direct, fixed cost of purchasing circuit switching capability and allows competitive carriers to create their own switching efficiencies. (207)***
>
> 224.We also conclude that an absence of sufficient collocation space does not hinder competitive LECs' ability to deploy competitive

> switches to a degree that gives rise to operational impairment. With respect to packet switches, the Commission found in the Triennial Review Order "that any collocation costs and delays incurred by requesting carriers to provide packet switched services do not rise to a level" of demonstrating impairment because such disadvantages "***are likely outweighed by [competitive LECs'] advantage in relying solely on newer, more efficient technology***." Similarly, we note that a reasonably efficient competitor does not have to be collocated in every incumbent LEC central office in order to serve customers in that wire center, ***reducing*** the likelihood that lack of collocation space will truly result in impairment in the absence of unbundled switching.[7] (emphasis added)

To think that the FCC relieved ILECs of significant unbundling requirements based upon those competitor's abilities to deploy newer, more efficient technology, only to turn around and require those very same competitors to mimic as an architectural or monetary matter the network architecture of their incumbent competitors strains credulity. There can be no intermodal competition of any sort if the Commission allows this sort of ILEC protectionism.

Q. IS RULE 51.703(B) CONSISTENT WITH ECONOMIC THEORY?

A. Yes. This rule is the embodiment of the "cost causer" economic principle – cost causers should pay the cost they impose on society. In this case, when a Qwest subscriber makes a call to a Level 3 customer, Qwest is responsible for the cost of getting that traffic to the POI. As such, the language to "order" transport facilities is correct since there is no requirement to "purchase" facilities for the transport of Qwest originated traffic on the Qwest side of the POI.

---

[7] In the Matter of Unbundled Access to Network Elements Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers), WC Docket No. 04-313, CC Docket No. 01-338; *Order On Reman;*, ¶¶206, 207, and 224 (Released: February. 4, 2005).

Level 3 Is Not the Cost Causer

Q. WHY DOES QWEST RAISE THE ISSUE OF "COST CAUSER" WHEN THE RULES REQUIRE EACH PARTY TO BEAR ITS COSTS OF ORIGINATING AND TRANSPORTING TRAFFIC ON ITS NETWORK TO THE POI?

A. It appears that Qwest's approach is largely characterized by imposing upon Level 3 classifications that have more to do with their retail classifications than with the exchange of traffic between interconnecting LECs. In this sense, Qwest uses the term "VNXX" or "FX" to create a false distinction between FX terminated by ILECs and FX provided by incumbent LECS.

Q. SO YOU DISAGREE WITH MR. EASTON'S SUGGESTION THAT LEVEL 3 IS THE COST CAUSER FOR ALL ISP-BOUND AND VNXX TRAFFIC?

A. Absolutely. As I stated earlier, Qwest's customers – who are subscribers to Qwest's local service plans – are originating these calls to Level 3 customers. It is their choice to employ the Qwest service to contact a Level 3 customer. Qwest customers are paying Qwest to complete those calls and to get that traffic to Level 3. Level 3 is not the cost causer, and should not have to pay the cost of getting this traffic to the POI.

Q. DO YOU AGREE WITH QWEST'S POSITION ON FX/VNXX TRAFFIC?

A. No. Simply because a call may terminate in a different or adjacent exchange does not mean that it should be treated differently than other locally dialed calls. As I noted in my direct testimony, Qwest's responsibilities and costs are absolutely identical regardless of the location of the Level 3 customer. In each case, a locally dialed call is routed to the POI for termination. All that Qwest does is determine that the dialed

telephone number is a Level 3 number and route the call to Level 3 on an appropriate trunk group. What Level 3 does is the same in both cases: it recognizes the incoming traffic as bound for one of its customers and sends the traffic on to that customer. The only difference is whether the ISP's gear receiving the call is at the end of a short circuit (close to Level 3's switch, and thus often not in the calling party's retail local calling area) or a long circuit (far away from Level 3's switch, and thus, possibly, in the calling party's retail local calling area). Regardless of the distance, it is Level 3's responsibility to complete the call. It makes no economic sense whatsoever to make any distinction in Qwest's financial or operational obligations depending on whether Level 3 uses a long or short circuit to connect its customers to its switch.

FX/VNXX traffic is simply a competitive response to traditional foreign exchange service which Qwest stated in discovery it has been providing in Iowa since 1954.[8] That functionality is now being used by ISPs to efficiently provision service throughout the United States. Qwest's foreign exchange, Wholesale Dial and OneFlex™ services provide a similar functionality.

Q. ARE THERE CIRCUMSTANCES UNDER WHICH LEVEL 3 HAS AGREED TO PAY FOR FACILITIES ON THE QWEST SIDE OF THE POI?

A. Yes. As Mr. Ducloo explains, Level 3 typically adds direct trunks when traffic volumes reach 512 BHCCS. There may, however, be circumstances when traffic should be allowed to increase beyond this point for a period of time. This is consistent

[8] Qwest has yet to provide a response to Level 3 Request No. 25; however, it has stated that in other states including Iowa and Colorado that it has offered such services from 1954 or so I would expect their AZ response to be the same.

with Level 3's practices with Qwest as well as with every other major ILEC. In fact, Mr. Linse noted in his testimony that "Level 3 has historically been very cooperative when working with Qwest's trunk administration group." (Direct of Linse at 23) Level 3 has historically been very proactive in its relationships with Qwest and other ILECs to ensure that traffic is properly engineered to avoid tandem exhaust and blocking that might impact service quality. Parenthetically, as Mr. Ducloo has noted, Qwest's insistence upon a duplicative FGD architecture is somewhat confusing as this requirement would accelerate tandem exhaust throughout Qwest's network.

Issue 1G Dispute Over Traffic Types

Q. AT PAGE 16 OF HIS TESTIMONY, MR. EASTON DISCUSSES LANGUAGE FOR SECTION 7.3.1.1.1 (ENTRANCE FACILITIES). QWEST PROPOSES LANGUAGE THAT WOULD HAVE THE "TERMINATING" CARRIER RESPONSIBLE FOR THE ISP-BOUND AND VNXX TRAFFIC. IS THIS CONSISTENT WITH COST CAUSATION?

A. Absolutely not. As discussed above, the originating carrier is responsible for getting traffic to the POI for termination by the interconnected provider. Qwest turns this economic principle on its head by suggesting that the "terminating" carrier is responsible for ISP-bound traffic and for VNXX traffic.

Q. WHAT LANGUAGE HAS QWEST PROPOSED?

A. Qwest's proposed language for Section 7.3.1.1.3 is as follows:

> 7.3.1.1.3 If the Parties elect to establish LIS two-way trunks, for reciprocal exchange of Exchange Service (EAS/Local) traffic, the cost of the

LIS two-way facilities shall be shared among the Parties by reducing the LIS two-way entrance facility (EF) rate element charges as follows:

7.3.1.1.3.1 Entrance Facilities - The provider of the LIS two-way Entrance Facility (EF) will initially share the cost of the LIS two-way EF by assuming an initial relative use factor (RUF) of fifty percent (50%) for a minimum of one (1) quarter if the Parties have not exchanged LIS traffic previously. The nominal charge to the other Party for the use of the EF, as described in Exhibit A, shall be reduced by this initial relative use factor. Payments by the other Party will be according to this initial relative use factor for a minimum of one (1) quarter. The initial relative use factor will continue for both bill reduction and payments until the Parties agree to a new factor, based upon actual minutes of use data for non-ISP-bound traffic to substantiate a change in that factor. ***If a CLEC's End User Customers are assigned NPA-NXXs associated with a rate center different from the rate center where the Customer is physically located, traffic that does not originate and terminate within the same Qwest local calling area (as approved by the Commission), regardless of the called and calling NPA-NXXs, involving those Customers is referred to as "VNXX traffic". For purposes of determining the RUF, the terminating carrier is responsible for ISP-bound traffic and for VNXX traffic.*** If either Party demonstrates with non-ISP-bound traffic data that actual minutes of use during the first quarter justify a new relative use factor, that Party will send a notice to the other Party. Once the Parties finalize a new factor, the bill reductions and payments will apply going forward, from the date the original notice was sent. ISP-bound traffic or traffic delivered to Enhanced Service providers is interstate in nature. Qwest has never agreed to exchange VNXX Traffic with CLEC. (emphasis added)

Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?

A. Level 3 proposes the following:

7.3.1.1.3 Each party is solely responsible for any and all costs arising from or related to establishing and maintaining the interconnection trunks and facilities it uses to connect to the POI. Thus, neither party shall require the other to bear any additional costs for the establishment and operation of interconnection facilities that connect its network to its side of the POI.

7.3.1.1.3.1 Intercarrier compensation. Intercarrier compensation for traffic exchanged at the SPOI shall be in accordance with FCC Rule 51.703 and associated FCC rulings. For avoidance of doubt, any traffic that constitutes "telecommunications" and that is not subject to switched access charges, including without limitation so-called "information access" traffic, shall be

> subject to compensation from the originating carrier to the terminating carrier at the FCC-mandated capped rate (as of the effective date hereof) of $0.0007 per minute. Any dispute about the appropriate intercarrier compensation applicable to any particular traffic shall be resolved by reference to the FCC's rule and associated orders.

Level 3's language is simple and consistent with the FCC rules regarding who bears responsibility on each side of the POI. Qwest's language, on the other hand, creates an artificial and unconventional distinction for traffic based on the physical location of customers.

Q. ARE THE VNXX AND ISP-BOUND CALLS ORIGINATED BY QWEST CUSTOMERS, AND DIALED ON A LOCAL BASIS?

A. Yes.

Q. QWEST REFERS TO RULE 51.709(B) TO SUPPORT ITS POSITION ON THE RUF CALCULATION. SPECIFICALLY, MR. EASTON SUGGESTS THAT LEVEL 3 MUST BE RESPONSIBLE FOR THE ISP-BOUND AND VNXX TRAFFIC. (DIRECT OF EASTON AT 15) IS THAT A CORRECT INTERPRETATION OF RULE 51.709(B)?

A. No. Rule 51.709(b) states:

> (b) The rate of a carrier providing transmission facilities dedicated to the transmission of traffic between two carriers' networks shall recover only the costs of the proportion of that trunk capacity used by an interconnecting carrier to send traffic that will terminate on the providing carrier's network. Such proportion may be measured during peak periods.

This rule is again consistent with the economic principle of cost-causation in that it calculates the proportion to be paid based on the originating traffic as a proportion of

total traffic. That proportion is then used to allocate the cost of the facilities between the two providers. The ISP-bound and VNXX traffic is originated by Qwest subscribers and assuming a relative use factor is appropriate for calculating costs, then the ISP-bound and VNXX traffic must be included in Qwest's proportion of the cost, and not in Level 3's proportion of the cost.

Q. IS THERE ANY COST BASIS FOR TREATING THE ISP-BOUND AND VNXX TRAFFIC ANY DIFFERENTLY THAN OTHER LOCAL TRAFFIC?

A. No. In Level 3 Request No. 01-023, Level 3 asked the following question:

> Does Qwest contend that the costs it incurs in originating a call to a Level 3 customer differ in any respect whatsoever based upon the physical location of the Level 3 customer? If Qwest responds to the above question with anything other than an unequivocal "no," please provide a detailed explanation of how the location of Level 3's customer on Level 3's side of the POI could affect Qwest's costs. Include in that explanation all cost studies and any other documentation in your possession that you believe provides support for your position.

Qwest's response in pertinent part was, "The costs Qwest incurs do not vary based upon the physical location of the Level 3 customer."

Q. AT PAGES 21 OF HIS TESTIMONY, MR. EASTON ARGUES THAT RULE 51.703(B) REFERS TO TELECOMMUNICATIONS TRAFFIC AND NOT ISP-BOUND TRAFFIC. PLEASE COMMENT.

A. Subpart H of the FCC Rules does refer to telecommunications traffic and Section 51.703(b) refers to reciprocal compensation obligations. The FCC – in its *ISP Remand Order* – carved out federal authority to set intercarrier compensation rates for

ISP-bound traffic, under one particular subsection of Section 251. But the FCC was crystal clear in stating that it was *not* changing the scope of how ISP-bound traffic is exchanged between carriers under the other subsections of Section 251, or to limit the state commissions' jurisdiction beyond the issue of setting intercarrier compensation rates. Specifically, the FCC emphasized in footnote 149 of its *ISP Remand Order* that its establishment of the interim regime "affects only the intercarrier *compensation* (*i.e.*, the rates) applicable to the delivery of ISP-bound traffic. It does not alter carriers' other obligations under our Part 51 rules, 47 C.F.R. Part 51, or existing interconnection agreements, such as obligations to transport traffic to points of interconnection." (emphasis in original) Thus, the *ISP Remand Order* does not relieve Qwest of its interconnection obligations under rule 51.703(b). Finally, no matter what the Commission rules on compensation for ISP-bound traffic, such traffic will be going over the interconnection trunks and facilities and therefore should be included in determining relative use of the trunks and facilities to originate traffic.

Q. ARE THE CALLS ORIGINATED BY QWEST CUSTOMERS THAT ARE ULTIMATELY DETERMINED TO BE ISP-BOUND OR VNXX, IMPOSING ANY ADDITIONAL COSTS ON QWEST?

A. No. As noted above, Qwest has admitted that these calls do not increase its costs. The calls are dialed and routed like any other local call and Qwest cannot distinguish the ISP-bound or VNXX calls from other local calls. As such, Qwest's responsibilities and costs for delivering this traffic to the POI are the same as for any other local call. Contrary to Mr. Easton's suggestion, Rule 51.703(b) does apply to

the exchange of ISP-bound and VNXX traffic. The only difference is that Level 3 will receive the lower FCC mandated rate of $0.0007 per minute instead of the standard reciprocal compensation rate for terminating the traffic.

Q. ARE THERE ANY FEDERAL ORDERS THAT ADDRESS THE COST OF ISP-BOUND TRAFFIC AS OPPOSED TO OTHER LOCALLY DIALED TRAFFIC?

A. Yes. Paragraph 90 of the *ISP Remand Order* addresses the cost of ISP-bound and voice traffic:

> This is the correct policy result because we see no reason to impose different rates for ISP-bound and voice traffic. The record developed in response to the *Intercarrier Compensation NPRM* and the *Public Notice* fails to establish any inherent differences between the costs of any one network of delivering a voice call to a local end-user and a data call to an ISP. Assuming the two calls have otherwise identical characteristics (e.g., duration and time of day), a LEC generally will incur the same costs when delivering a call to a local end-user as it does delivering a call to an ISP. We therefore are unwilling to take any action that results in the establishment of separate intercarrier compensation rates, terms and conditions for local voice and ISP-bound traffic. To the extent that the record indicates that per minute reciprocal compensation rate levels and rate structures produce inefficient results, we conclude that the problems lie with this recovery mechanism in general and are not limited to any particular type of traffic. (emphasis in original)

It is clear from Qwest's admissions and the FCC's findings that there is no difference in cost for delivering a local voice call or an ISP-bound call to the POI. Since these calls are dialed in the same manner, handled in the same manner from a network perspective, and – not surprisingly – have the same cost, there is no justification for treating these calls differently from all other locally dialed calls. Indeed, this is

precisely what the FCC found in paragraph 92 of the *ISP Remand Order*, "Nor does the record demonstrate that CLECs and ILECs incur different costs in delivering traffic that would justify disparate treatment of ISP-bound traffic and local voice traffic under section 251(b)(5)."

Issue 1H Relative Use Formula

Q. AT PAGES 21 AND 22 OF MR. EASTON'S TESTIMONY HE DISCUSSES THE PROPOSED LANGUAGE OF THE TWO PARTIES WITH RESPECT TO DIRECT TRUNKED TRANSPORT. QWEST AGAIN DEFINES VNXX TRAFFIC AND STATES THAT "FOR PURPOSES OF DETERMINING THE RUF, THE TERMINATING CARRIER IS RESPONSIBLE FOR ISP-BOUND TRAFFIC AND FOR VNXX TRAFFIC." PLEASE COMMENT.

A. For all the economic reasons stated above, ISP-bound and VNXX traffic must be included in the RUF calculation. These locally dialed calls are originated by Qwest local service subscribers who pay Qwest to complete the calls.

Q. IN THAT SAME SECTION REGARDING ISSUE NO. 1H, QWEST STATES, "ISP-BOUND TRAFFIC IS INTERSTATE IN NATURE. QWEST HAS NEVER AGREED TO EXCHANGE VNXX TRAFFIC WITH CLEC." IS THAT CONSISTENT WITH ITS OTHER POSITIONS?

A. No. In this instance Qwest again attempts to apply its retail calling area distinctions to locally dialed traffic exchanged between interconnected LECs. In testimony and other statements, Qwest misconstrues the ESP exemption to apply only when the

calling and called parties are in the same local calling area. This is completely inconsistent with the FCC's treatment of this traffic. The FCC has pre-empted the Commission on intercarrier compensation for this traffic, but Qwest is still required to route this traffic to the POI per the state approved interconnection agreement.

Issue 1J NRCs for LIS Trunking

Q. AT PAGES 23 OF HIS TESTIMONY MR. EASTON STATES THAT LEVEL 3'S LANGUAGE FOR SECTION 7.3.3.1 DENIES QWEST COMPENSATION FOR WORK PERFORMED ON BEHALF OF LEVEL 3. DO YOU AGREE?

A. No. Level 3's language is consistent with economic principles in that "neither" party may charge for trunking on its side of the POI. This is consistent with the FCC mandate that each party pays for the facilities on its side of the POI. Qwest's language would have Level 3 pay for facilities on both sides of the POI. Qwest's proposal is anticompetitive, unreasonable, internally contradictory when viewed in light of unbundling relief granted to them, and against sound public policy in light of the fact that local rates in Iowa are going up, not down. Qwest is trying to change the rules and that is unfair.

DISPUTED ISSUE 2: ALL TRAFFIC ON INTERCONNECTION TRUNKS

Q. PLEASE INTRODUCE THIS ISSUE.

A. This issue is a dispute as to whether Level 3 should be allowed to combine all types of traffic on a single interconnection trunk group. Qwest wants Level 3 to use different trunk groups for different types of traffic ostensibly for billing purposes.

Q. FROM AN ECONOMIC PERSPECTIVE, WHAT IS THE IDEAL SOLUTION TO THIS DISPUTE?

A. The correct solution would be to route all traffic over a single interconnection trunk group. This solution is the most efficient solution from an engineering perspective as discussed by Mr. DuCloo, but it is also the most efficient solution from an economic perspective. By not allowing Level 3 to route all traffic on its interconnection trunks it is denying Level 3 the efficiencies that it could obtain otherwise. In other words, Qwest is forcing Level 3 to purchase additional trunks and facilities that are not necessary given the level of traffic. Artificially increasing the cost of an incumbent's competitors is a common tactic, but is not in the public interest.

Q. MR. EASTON STATES AT PAGE 28 THAT "QWEST HAS NO OBLIGATION TO PERMIT LEVEL 3 TO COMMINGLE SWITCHED ACCESS TRAFFIC WITH OTHER TYPES OF TRAFFIC ON THE INTERCONNECTION TRUNKS CREATED UNDER THE AGREEMENT." DO YOU AGREE?

A. No. Qwest should allow Level 3 to interconnect in the most efficient manner possible so long as it is technically feasible. Though Qwest refuses to admit in Arizona that there is no technical reason that would prohibit Qwest from combining all types of traffic on interconnection trunks (Level 3's Motion to Compel is pending), Qwest did admit to this in other states (such as Iowa) and I would expect the same answer in Arizona.

1 **Q. DOES QWEST COMBINE ALL TRAFFIC TYPES ON FGD TRUNK**
2 **GROUPS FOR OTHER CLECS?**
3 A. Yes. Qwest allows CLECs, who have a preponderance of FGD traffic, to combine all
4 other types of traffic on those trunks as well.[9] Level 3 has a preponderance of local
5 traffic, and should be allowed to combine what little FGD traffic it might have on its
6 interconnection trunks. This solution is workable and fair.
7 **Q. WHAT THEN IS QWEST'S OBJECTION TO COMBINING ALL TRAFFIC**
8 **ON A SINGLE INTERCONNECTION TRUNK GROUP?**
9 A. Qwest is willing to combine all traffic on a single trunk group, as long as it is a FGD
10 trunk group. Indeed, Qwest will allow all traffic types, with the exception of
11 switched access traffic, to be carrier over interconnection trunks. (Easton Direct at
12 25) The impact of Qwest's proposals is to increase Level 3's costs. For instance,
13 Qwest says that it is willing to allow the exchange of differently rated traffic over
14 FGD trunk groups, but Qwest's proposal again is nothing more than an attempt to
15 obtain more money wrapped in the enigma of contradictory requirements. Mr.
16 Ducloo speaks to those issues at length. The economics of the situation, however, are
17 clear: Qwest imposes unnecessary costs upon its competitor - Level 3 – for no other
18 reason than to force upon Level 3 billing "solutions" that already are unworkable in
19 the real world. Instead, as Level 3 already does with Verizon, BellSouth and SBC,
20 the parties should exchange traffic over a single set of interconnection trunks and
21 apply factors – which Qwest itself already applies to both the interconnection trunks

---

[9] See Qwest Response to Level 3 Request No. 01-49. (Exhibit TJG 7)

(to allocate billing for "locally" rated traffic and "intraLATA Toll" traffic) and on the FGD trunks (to allocate billing for "InterLATA interstate" and "InterLATA intrastate").

Q. WHY DOES QWEST OPPOSE LEVEL 3'S PROPOSAL TO USE BILLING FACTORS?

A. Mr. Easton argues that Level 3's proposal to use billing factors would not result in accurate bills. His argument lacks rational foundation as the telecommunications industry – and as I note above -- Qwest itself not only has used billing factors for decades. Requiring separate trunk groups, as suggested by Qwest, results in a deadweight economic loss to society.

Q. IF BILILNG ACCURACY IS AN ISSUE IN THIS PROCEEDING, WOULD THAT SAME ISSUE BE PERTINENT FOR THE COMBINED TRAFFIC ON FGD TRUNKS?

A. Yes. Qwest is apparently concerned about incentives to misreport traffic since different traffic is subject to different rates. If that were truly a concern, then Qwest would not have allowed other CLECs to combine all traffic on FGD trunks. Qwest allows other CLECs to combine all traffic on FGD trunks, so it is only fair to allow Level 3 to combine all traffic on interconnection trunks.

Q. DOES QWEST CURRENTLY USE BILLING FACTORS FOR SERVICES IN IOWA?

A. Yes. Qwest's Iowa access tariff (Access Service Tariff; IA QC Tariff No. 4, Section 2.3.10) has "jurisdictional report requirements" that date back to 1985. In fact, those

requirements only require a "projected" percentage rounded to the nearest percent that is updated quarterly.

Q. WHAT IS LEVEL 3'S PROPOSAL FOR THE USE OF BILLING FACTORS?

A. The billing factors would be based on actual traffic data and adjusted as new data becomes available. Level 3 would provide updates for the factors quarterly or perhaps more often. Level 3's proposal is certainly preferable to forcing a carrier to use FGD trunks in addition to interconnection trunks.

Q. PLEASE SUMMARIZE YOUR POSITION ON COMBINING TRAFFIC ON TRUNK GROUPS.

A. Qwest and Level 3 agree that there is no technical reason that would prohibit Qwest from combining all types of traffic on interconnection trunks. So the only issue to resolve is whether it is more efficient to use billing factors or to force Level 3 to incur the additional and unnecessary costs of the FGD trunks. Unless and until Qwest can show that billing factors are not appropriate, there is no economic justification for forcing these additional costs on Level 3. As such, the Commission should order Qwest to route all traffic to the interconnection trunks and allow Level 3 to provide billing factors that allow for the appropriate pricing of the traffic.

ESP EXEMPTION

Q. MR. BROTHERSON ADDRESSES THE ESP EXEMPTION IN HIS TESTIMONY AT PAGES 13 – 15. DO YOU AGREE WITH HIS DISCUSSION?

A. No. Mr. Brotherson is correct that the exemption has a long history, but his interpretation of the exemption assumes that it was created solely for the benefit of Qwest and that it applies solely according to a pre-Act view of the world. Qwest's interpretation would force ISPs to purchase services only from ILECs since they would be the only provider with facilities in every local calling area. This is completely inconsistent with the wording of the exemption and with the pro-competitive intent of the Act.

Q. HAS THE PURPOSE OF THE EXEMPTION CHANGED SINCE ITS INCEPTION?

A. No. The ESP exemption is the cornerstone of the policy of the United States "to promote the continued development of the Internet and other interactive computer services and interactive media...[and] to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation." 47 U.S.C. § 230(b)(1)-(2).

Q. WHAT IS MR. BROTHERSON'S POSITION ON THIS EXEMPTION?

A. Mr. Brotherson says the effect of the exemption is to allow ESPs to avoid access charges when making calls within a local calling area. (Brotherson Direct at 20) This makes no sense. If the ESP is making local calls, then access charges would not

1 apply in any case. In fact, the FCC has noted that access charges do not apply to ISPs
2 providing what appear to be long distance calls. As the FCC noted there are
3 exceptions, "...(*e.g.,* long-distance calls handled by ISPs using IP telephony are
4 generally exempt from access charges under the enhanced service provider (ESP)
5 exemption)."[10] Using Qwest's application of the exemption, ESPs would be exempt
6 from access charges for local calls and would pay access charges for calls outside the
7 local calling area; in effect, Qwest's application of the exemption renders it useless.

8 **Q. WHAT IS YOUR INTERPRETATION OF THE ESP EXEMPTION?**

9 **A.** ESPs – including ISPs – are treated as end users, rather than carriers, for purposes of
10 the FCC's interstate access charges. ISPs are allowed to purchase their services from
11 local tariffs and are not subject to access charges. As such, ESPs are "exempt" from
12 access charges, and obtain service from their local telephone companies under
13 intrastate local tariffs.[11]

14 **Q. MR. BROTHERSON STATES THAT QWEST'S LANGUAGE IS ESSENTIAL**
15 **TO AVOID ESPS FROM PROVIDING CALLS "...TO ANOTHER LCA IN**

---

[10] See, *In the Matter of Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92; Notice of Proposed Rulemaking; Released April 27, 2001; at para. 6. See, also, the *ISP Remand Order* at para. 60.

[11] *See MTS and WATS Market Structure Order*, 97 FCC 2d at 715 (ESPs have been paying local business service rates for their interstate access and would experience rate shock that could affect their viability if full access charges were instead applied); *see also Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, CC Docket 87-215, Order, 3 FCC Rcd 2631, 2633 (1988) (*ESP Exemption Order*) ("the imposition of access charges at this time is not appropriate and could cause such disruption in this industry segment that provision of enhanced services to the public might be impaired"); *Access Charge Reform*, CC Docket No. 96-262, First Report and Order, 12 FCC Rcd 15982, 16133 (1997) (*1997 Access Charge Reform Order*), *aff'd, Southwestern Bell Telephone Co. v. FCC,* 153 F.3d 523 (8th Cir. 1998 ("[m]aintaining the existing pricing structure ... avoids disrupting the still-evolving information services industry.")).

THE LATA, TO ANOTHER LATA, TO ANOTHER STATE, OR TO ANOTHER COUNTRY..." (BROTHERSON DIRECT AT 20) IS THAT A RELEVANT CONCERN?

A. No. It is commonly recognized that ESPs and ISPs provide services that cross local calling boundaries, LATA boundaries and even state boundaries. The FCC has recognized that since the inception of the ESP exemption. For instance, the FCC stated in 1997 that, "ISPs may pay business line rates and the appropriate subscriber line charge, rather than interstate access rates, even for calls that appear to traverse state boundaries."[12]

Q. AT PAGES 20 AND 21 OF HIS TESTIMONY MR. BROTHERSON STATES THAT LEVEL 3'S INTERPRETATION OF THE ESP EXEMPTION WOULD "...GIVE IT ACCESS TO QWEST'S ENTIRE NETWORK ESSENTIALLY FREE OF CHARGE TO TERMINATE IXC TRAFFIC." IS THAT A CORRECT STATEMENT?

A. No. Qwest's only responsibility is to route Qwest originated traffic to the POI for termination by Level 3. Level 3 has agreements with IXCs such that they do pay access charges for IXC traffic. As it has stated repeatedly, Level 3 is willing to pay access charges for IXC traffic.

Q. FROM AN ECONOMIC PERSPECTIVE, WHAT WOULD BE THE IMPACT OF QWEST'S INTERPRETATION OF THE ESP EXEMPTION?

---

[12] *Id.* at para. 342.

1 A. Qwest's interpretation would not only eliminate the intended benefits of the
2 exemption, but would actually force ESPs to deploy facilities in every local calling
3 area in the nation. As with the single POI discussed above, forcing competitors to
4 duplicate decades-old network architectures according to the retail designs of the
5 incumbent (which retail regulation the incumbent is only partially subjected to) is
6 ridiculous where a state seeks promotion of effective competition. The FCC never
7 intended this result nor should any state commission. Instead, ESPs should be able to
8 purchase local services from LECs without paying access charges and without
9 placing equipment (a VoIP POP per Brotherson's LBB1) in every local calling area.
10 Qwest's proposal disadvantages Level 3 and ESPs, and provides a distinct advantage
11 to Qwest's affiliates who provide similar services.

12 **Q. HOW WOULD QWEST'S POSITION BENEFIT QWEST AND ITS**
13 **AFFILIATES?**

14 A. Under Qwest's proposed language, there would have to be a VoIP POP in every local
15 calling area where a call was originated; or, the calling and called parties would have
16 to be physically located within the same local calling area. Assuming Qwest could
17 make such a determination, the only party that could comply with this proposal would
18 be Qwest. Other parties would have to essentially duplicate Qwest's network by
19 placing facilities in every Qwest local calling area. What this means in simplest
20 terms is that only an ILEC would benefit from the ESP exemption and all other
21 providers would not only have to forfeit intercarrier compensation, but would have to
22 pay access charges as well. Not only would such a result be contrary to the Act's

goal of creating competition, but it would be contrary to the fundamental purpose of the ESP exemption. If Qwest's language were adopted, ISPs would only purchase services from ILECs – since CLEC service would have access charges on top of the actual cost of providing service. Qwest's position is unreasonable, anticompetitive and should be rejected.

VNXX TRAFFIC

Q. MR. BROTHERSON SPENDS CONSIDERABLE TIME IN HIS TESTMONY ADDRESSING VNXX TRAFFIC. PLEASE COMMENT.

A. Qwest evidently considers VNXX traffic to be an improper scheme to convert toll calls to local calls. (Brotherson Direct at 41) But this service has been around for decades and it provides an important service to consumers and especially to the ISP industry. Qwest is offering services that provide the very same functionality, so it must recognize the demand and benefits of such an offering. In response to Level 3 Request No. 01-024, Qwest indicated that it does offer FX service in Iowa.

Q. AT PAGE 41 OF HIS TESTIMONY MR. BROTHERSON STATES THAT "...VNXX IS AN ARRANGEMENT THAT PROVIDES THE FUNCTIONALITY OF TOLL OF 8XX SERVICE, BUT AT NO EXTRA CHARGE." IS THAT CORRECT?

A. No. From the consumer's perspective VNXX, FX and 800 services offer similar results – dial-up access to the Internet without the imposition of additional per minute of use charges. But the similarity ends there. Mr. Brotherson is wrong to suggest that

Level 3 is providing toll or 8XX functionality. Toll calls and 8XX calls use the familiar 1+ dialing pattern and consumers expect the calls to be routed to an IXC of their choosing for completion. They also know, because of the 1+ dialing, that they will pay toll charges for the call. VNXX calls are locally dialed calls, without the use of the 1+ dialing pattern and without the services of an IXC. In other words, the so called "VNXX" which is nothing more than an ILEC invented term that attempts to pull competitors back into the ILEC cost structures and retail offerings, makes no use of the interexchange carrier access network. Mr. Ducloo explains in great detail why 8XX services are not similar to VNXX calls in his rebuttal.

Q. AT PAGE 51 OF HIS TESTMONY, MR. BROTHERSON STATES THAT "LEVEL 3 WANTS THE CALL ROUTED OVER THE PSTN, BUT FEELS NO RESPONSIBILITY FOR PROVIDING THE TRANSPORT TO THE DISTANT LOCATION." IS THAT A CORRECT STATEMENT?

A. No. Level 3 is completely responsible for the termination of the call regardless of the location of the Level 3 subscriber. All Qwest is required to do is to deliver the call to the POI. Mr. Brotherson's statement completely misstates the way these calls are routed. He suggests that Level 3 uses Qwest's "toll network", and that is likewise incorrect. It is Level 3 – not Qwest – that is transporting these "Qwest originated" calls to their destination.

Q. MR. BROTHERSON SAYS THERE IS NO EXTRA CHARGE FOR THE VNXX CALL. IS THAT CORRECT?

1 **A.** No. From the perspective of the Qwest customer, the "VNXX" call is no different
2 from any other locally dialed call and no per minute of use charges are imposed upon
3 the Qwest end user, unlike a 1+ call to an IXC or 8XX service. From the perspective
4 of Qwest, the VNXX call imposes no additional costs. From Level 3's perspective,
5 the call is picked up at the POI and delivered over Level 3's network to its customers.
6 Level 3 imposes no additional charge to Level 3's customers for these calls, but even
7 if it did, such fact would not convert the call to a "toll' call nor would it impose any
8 additional costs upon Qwest.

9 **Q. AT PAGES 40 THROUGH 43, MR. BROTHERSON DISCUSSES HIS**
10 **UNDERSTANDING OF VNXX AND THE USE OF NUMBERING CODES.**
11 **AT PAGE 43 HE STATES THAT THIS "...IS AN UNINTENDED AND**
12 **INAPPROPRIATE USE OF THE ASSIGNED NXX." DO YOU AGREE?**

13 **A.** No. Nor is Mr. Brotherson able to cite to any rules which support his proposition.
14 Rather, he mixes retail regulation with interconnection requirements in ways that are
15 enormously beneficial to Qwest resulting in windfall profits, but cites to nothing that
16 would require interconnecting carriers to mimic ILEC architecture for purposes of
17 routing locally dialed calls to the parties' single point of interconnection within the
18 LATA. Moreover, based upon my review of carrier offerings throughout the
19 industry, the use of VNXX codes is not only common but intended, as previously
20 indicated. To find otherwise would impose the exact kinds of regulatory and
21 economic constraints upon competitors that the FCC and state commissions
22 nationwide intend to lift. Thus the issue of "physical location of the end user" is a red

herring developed by an incumbent wireline provider seeking desperately to protect toll revenues in an age where intermodal competition means competing upon the basis of the best technology without the constraints of economic regulation common in a period of single technology monopoly regulation.

Q. DO THE CODE ASSIGNMENT GUIDELINES ALLOW FOR VNXX OR FX NUMBERS TO BE ASSIGNED?

A. Yes. In fact Section 2.14 of the Numbering Guidelines specifically identifies foreign exchange services as being eligible for number assignment:

> It is assumed from a wireline perspective that CO Codes/blocks allocated to a Wireline Service Provider are to be utilized to provide service to a customer's premise physically located in the same rate center that the CO Codes/blocks are assigned. **Exceptions exist, for example tariffed services such as foreign exchange service.** [13] (emphasis added)

If it were improper or a violation of the guidelines to use virtual NXX codes then all ILECs currently providing FX and FX-type services would be in violation today.

Q. MR. BROTHERSON STATES THAT "...LEVEL 3 WANTS TO SHIFT ALL OF THE COSTS OF THIS ARRANGEMENT TO QWEST." (BROTHERSON DIRECT AT 46) IS THAT A CORRECT STATEMENT?

A. No. There is no additional cost for VNXX calls over and above the cost for a traditional local call. Qwest's obligations and costs are the same in delivering a call originated by one of its customers, regardless of whether the call terminates at a so-

---

[13] Alliance for Telecommunications Industry Solutions; Sponsor of Industry Numbering Committee; Central Code (NXX) Assignment Guidelines; Released May 28, 2004; hereinafter referred to as "Numbering Guidelines".

called "virtual" or "physical" NXX behind the CLEC switch. Qwest systems and network route these calls in exactly the same way they route other local calls. In response to Level 3 Request No. 01-023, Qwest stated in pertinent part, "The costs Qwest incurs do not vary based upon the physical location of the Level 3 customer."

It is clear that Level 3 is providing a service to Qwest in terminating the traffic originated by Qwest customers. If Level 3 or some other provider did not terminate those calls, Qwest would need to deploy facilities and capacity sufficient to terminate those calls. As such, Qwest should be economically indifferent as to whether it pays Level 3 for terminating those calls, or whether it transports and terminates the traffic itself.

Q. DOES QWEST OFFER SERVICES OTHER THAN FX AND WHOLESALE DIAL THAT WOULD ENABLE A CUSTOMER PHYSICALLY LOCATED IN THE PHOENIX LOCAL CALLING AREA TO HAVE A TELEPHONE NUMBER IN A DISTANT QWEST EXCHANGE, SO THAT CALLS TO AND FROM THAT PERSON BY LOCAL SUBSCRIBERS IN THE DISTANT EXCHANGE WOULD BE TREATED AS LOCAL CALLS? (BROTHERSON DIRECT AT 46)

A. Yes. In my direct, I noted that Qwest offers a service called OneFlex™ which permits subscribers to have as many as five virtual numbers. (See Gates Direct at 54) I called Qwest's customer service number (1-866-283-0043) to discuss the characteristics and capabilities of this service. The customer service representative (Lisa) was quick to tell me that a subscriber can get up to five virtual numbers of his

or her choice so friends and relatives can call without toll charges. I asked her if I could get a local number in Bend, Oregon, and I was told that I could. When I asked how the system works, she said I would be assigned a local number for Bend, Oregon and when my Mother in Bend dials that number she will be connected to me in Denver on a local basis with no toll charges. On Qwest's website, it describes the virtual numbers as follows:

> Virtual Numbers are alias phone numbers that can be associated with your OneFlex™ phone number. Your friends and family can dial your Virtual phone number and avoid incurring long-distance charges. For example, if you live in Denver and your primary # is 303.xxx.xxxx and your family lives in Omaha, your family has to call long-distance. With OneFlex, you can get a virtual phone number assigned to your account with an Omaha area code, so your family doesn't have to pay long-distance charges.
>
> You can have up to 5 Virtual Phone Numbers attached to one primary OneFlex phone number.

As such, Qwest is selling a service that does exactly what Level 3's service accomplishes – provides a virtual presence for a customer that does not have a physical presence in the exchange. It is disingenuous for Qwest to object to Level 3's service when it offers the same capability to its customers.

Q. ONEFLEX™ IS A VOIP PRODUCT, CORRECT?

A. Yes. But the point is the same; whether it's an FX service, VNXX service or a VoIP service, the consumer is able to purchase a virtual presence in an exchange where he or she has no physical presence. This is the purpose of Level 3's proposed language regarding geographically independent telephone numbers. Mr. Brotherson's

statement that "ISP, VoIP or circuit based VNXX calls do not change a toll call into a local call" evidently only applies to Level 3 services and not to Qwest services. (Brotherson Direct at 49)

Q. DOES QWEST HAVE FACILITIES IN EVERY LOCAL CALLING AREA WHERE THEY OFFER VIRTUAL NUMBERS?

A. I don't know. But even if it did, it would be because of its historical network development, not because of a technical necessity. Any ruling by this Commission on VNXX and ISP-bound traffic should be technologically and competitively neutral. A ruling requiring physical facilities in every local calling area is not technologically or competitively neutral in that it reflects only Qwest's network topology.

Q. DOES QWEST'S WHOLESALE DIAL SERVICE PROVIDE LOCAL NUMBERS FOR ACCESSING THE INTERNET ON A DIAL-UP BASIS?

A. Yes, it does. Further, one of the benefits Qwest identifies for its Wholesale Dial customers is that the customer "Incurs no cost of building and maintaining a dial network" and "Can reduce substantial costs associated with network build-out, operations, maintenance and monitoring."[14]

Q. IS MR. BROTHERSON CORRECT TO STATE THAT LEVEL 3'S LANGUAGE WOULD CHANGE THE COMMISSION'S DEFINED LOCAL CALLING AREAS?

---

[14] See Qwest's Website for Large Business Internet Solutions; http://www.qwest.com/pcat/large_business/product/1,1016,2098_4_28,00.html

1 A. No. Nothing in Level 3's proposed language would change the Commission's
2 defined local calling areas. Level 3 assigns numbers associated with local calling
3 areas for its customers. That assignment process does nothing to change the
4 established boundaries of the local calling areas. If that were true, then Qwest's
5 foreign exchange service has been guilty of changing Commission defined local
6 calling areas since at least 1954.

7 **Q. MR. BROTHERSON RAISES CONCERNS ABOUT NUMBERING**
8 **RESOURCES. DOES VNXX IMPACT THE NUMBERING RESOURCES**
9 **ANY DIFFERENTLY THAN OTHER SERVICES?**

10 A. No. The Commission has given Level 3 authority to get numbers for its VoIP
11 services, and those same number blocks can be used to offer VNXX services.
12 Offering additional services allows Level 3 to make even more efficient use of the
13 number blocks.

14 **Q. IS NUMBER EXHAUST A PROBLEM IN THE QWEST REGION?**

15 A. No. As of December 31, 2004, 67 percent of the numbers available in Iowa were
16 available for assignment.[15] In fact, only 1.8 percent of the number blocks are pooled
17 in Iowa, indicating that more efficient utilization could occur with additional
18 pooling.[16] Thousands block number pooling has made it unnecessary to distribute
19 nearly 153 million telephone numbers. CLECs are increasing their efficiency in
20 number utilization, while ILECs are decreasing. The overall utilization rate for

---

[15] See FCC Industry Analysis and Technology Division Report entitled, "Numbering Resource Utilization in the United States as of December 31, 2004." ("*Number Utilization Report*")Table 4.

[16] Id. at Table 8.

ILECs was 53.5 percent, down from 60.3 percent six months before. The overall utilization for CLECs was 16.4 percent, up from 14.9 percent six months before.[17]

Q. MR. BROTHERSON SUGGESTS THAT LEVEL 3'S USE OF NUMBERS THAT ARE NOT ASSOCIATED WITH A PHYSICAL LOCATION OF A CUSTOMER IS SOMEHOW IMPROPER. DO YOU AGREE?

A. No. As noted above, this type of number assignment is common and accepted. The FCC's Number Utilization Report states, "Carriers use other types of non-geographic numbering resources as well: millions of numbers are used to provide toll-free services using non-geographic area codes such as 800, 888, 877 and 866."[18] Other non geographic numbers include 500 and 900 area codes. Area code 500 is used for "follow me" service and area code 900 is used for information services. Millions of wireless numbers are also assigned without reference to geographic location. The fact that a few numbers are also used for VNXX applications should not be of concern to NANPA or the Commission.

Q, ARE CARRIERS RETURNING NUMBERS TO THE ADMINISTRATOR?

A. Yes. In the first half of 2004, carriers returned 5.1 million telephone numbers to the numbering administrator. In the second half of 2004, carriers returned 4.8 million telephone numbers to the NANPA.[19]

---

17 Id. at page 2.
18 Id. at page 5.
19 Id. at page 3.

Q. PLEASE SUMMARIZE YOUR POSITION ON THE ECONOMIC IMPACT OF QWEST'S POSITIONS ON VNXX AND OTHER IP-ENABLED SERVICES?

A. Qwest's positions that require a physical presence (i.e., VoIP POP) or a call definition that is based on the physical location of the calling and called parties, are a fabrication designed to accommodate it's deployed network, not an efficient forward looking network. The physical presence requirement would result in uneconomic duplication of the Qwest network design. The requirement for physical locations of the calling and called parties has **never** been an industry standard and is being used by Qwest to redefine local calling, for the single purpose of denying competitors compensation for terminating calls originated by Qwest customers. Not only do these positions deny compensation, but they impose unwarranted costs on Qwest's competitors and harm the efficient operation of the market. Qwest's positions should be rejected.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

EXHIBIT TJG-7

Arizona
Docket No. T-01051B-05-0350 and
T-03654A-05-0350
L3C 01-049

INTERVENOR: Level 3 Communications, LLC

REQUEST NO: 049

Please admit that Qwest currently has interconnection agreements with one or more CLECs in Arizona under which those CLECs are permitted to carry mixed intraLATA interexchange, and interLATA interexchange traffic on the same trunk groups. If your answer is anything other than an unqualified admission, please describe in detail your qualification or denial, and provide any information or evidence which supports your qualification or denial.

RESPONSE:

Admit Qwest currently has interconnection agreements with one or more CLECs in Arizona under which those CLECs are permitted to carry mixed intraLATA interexchange, and interLATA interexchange traffic. That traffic, however, is transported on the same Feature Group D trunk groups, and not on Local Interconnection Service (LIS) trunks.

Before theFederal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
GTE Telephone Operating Cos.	)	CC Docket No. 98-79
GTOC Tariff No. 1	)	
GTOC Transmittal No. 1148	)	

MEMORANDUM OPINION AND ORDER

Adopted: October 30, 1998; Released: October 30, 1998

By the Commission: (Commissioners Furchtgott-Roth and Tristani dissenting in part and issuing a joint statement)

I. INTRODUCTION

1. In this Order, we conclude our investigation of a new access offering filed by GTE that GTE calls its DSL Solutions-ADSL Service ("ADSL service"). We find that this offering, which permits Internet Service Providers (ISPs) to provide their end user customers with high-speed access to the Internet, is an interstate service and is properly tariffed at the federal level.[1] In addition, we reject the argument of Northpoint that the possibility of a price squeeze warrants the Commission's transfer to the states of its ratemaking authority with respect to interstate DSL services such as the one at issue here.

2. We emphasize that we decide here only the issue designated in our investigation of GTE's federal tariff for ADSL service, which provides specifically for a dedicated connection, rather than a circuit-switched, dial-up connection, to ISPs and potentially other locations. This issue involves the applicability of Commission rules and precedent regarding the provision by one incumbent local exchange carrier (LEC) of special access service. This Order does not consider or address issues regarding whether local exchange carriers are entitled to receive reciprocal compensation when they deliver to information service providers, including Internet service

[1] We emphasize that our decision concerning the jurisdictional treatment of GTE's ADSL service is limited to the transport of data from an end user over GTE's frame relay network. Regulation of circuit switched voice and data calls carried over the same ADSL-conditioned loop, as part of the end user's standard residential or business service, is unaffected by GTE's offering and this decision.

EXHIBIT L11 L8 9/9/05

providers, circuit-switched dial-up traffic originated by interconnecting LECs.[2] Unlike GTE's ADSL tariff, the reciprocal compensation controversy implicates: the applicability of the separate body of Commission rules and precedent regarding switched access service, the applicability of any rules and policies relating to inter-carrier compensation when more than one local exchange carrier transmits a call from an end user to an ISP, and the applicability of interconnection agreements under sections 251 and 252 of the Communications Act, as amended by the Telecommunications Act of 1996, entered into by incumbent LECs and competitive LECs that state commissions have found, in arbitration, to include such traffic. Because of these considerations, we find that this Order does not, and cannot, determine whether reciprocal compensation is owed, on either a retrospective or a prospective basis, pursuant to existing interconnection agreements, state arbitration decisions, and federal court decisions. We therefore intend in the next week to issue a separate order specifically addressing reciprocal compensation issues.

II. BACKGROUND

3. In an Order released May 29, 1998, the Common Carrier Bureau (Bureau) found that GTOC Transmittal No. 1148 establishing a new offering, GTE DSL Solutions-ADSL Service ("ADSL service"), raised substantial questions of lawfulness and, accordingly, suspended this tariff for one day, initiated an investigation, and imposed an accounting order.[3] Subsequently, the Bureau designated for investigation the question whether GTE's ADSL service offering constitutes an interstate access service, thus subject to the Commission's jurisdiction and properly tariffed at the federal level.[4] The Bureau also solicited comments on whether the Commission should defer to the states the tariffing of DSL services in order to lessen the possibility of a price

---

[2] *See, e.g.*, Petitions for Reconsideration and Clarification of Action in Rulemaking Proceedings, 61 Fed. Reg. 53,922 (1996); Petition for Partial Reconsideration and Clarification of MFS Communications Co., Inc. at 28; Letter from Richard J. Metzger, General Counsel for ALTS to Regina M. Keeney, Chief, Common Carrier Bureau, FCC, June 20, 1997; Pleading Cycle Established for Comments on Request by ALTS for Clarification of the Commission's Rules Regarding Reciprocal Compensation for Information Service Provider Traffic, DA 97-1399 (rel. July 2, 1997); Letter from Edward D. Young, Senior Vice President & Deputy General Counsel for Bell Atlantic and Thomas J. Tauke, Senior Vice President -- Government Relations for Bell Atlantic to Hon. William E. Kennard, Chairman, FCC, July 1, 1998. This question sometimes has been posed more narrowly, *i.e.*, whether an incumbent LEC must pay reciprocal compensation to a competitive LEC that delivers incumbent LEC-originated traffic to ISPs. Because the pertinent provision of the 1996 Act pertains to all LECs, we examine this issue in the broader context. 47 U.S.C. § 251(b)(5).

[3] GTE Tel. Operating Cos. GTOC Transmittal No. 1148, CC Docket No. 98-79, DA 98-1020 (Com. Car. Bur., rel. May 29, 1998) (*Suspension Order*).

[4] GTE Tel. Operating Cos. GTOC Transmittal No. 1148, CC Docket No. 98-79, DA 98-1667, at ¶ 12 (Com. Car. Bur., rel. August 20, 1998) (*GTE DSL Designation Order*).

squeeze.[5] On September 8, 1998, GTE filed its direct case.[6] More than forty parties filed comments or oppositions responding to GTE's direct case on September 18, 1998.[7] GTE filed its rebuttal on September 23, 1998.

4. The issue whether GTE's ADSL service offering constitutes an interstate access service involves determining how Internet traffic fits within our existing regulatory framework. We begin, therefore, with a brief description of relevant terminology and technology.

A. The Internet and ISPs

5. The Internet is an international network of interconnected computers enabling millions of people to communicate with one another and to access vast amounts of information from around the world.[8] The Internet functions by splitting up information into "small chunks or 'packets' that are individually routed through the most efficient path to their destination."[9] With packet-switching, "even two packets from the same message may travel over different physical paths through the network . . . which enables users to invoke multiple Internet services simultaneously, and to access information with no knowledge of the physical location of the service where the information resides."[10]

6. An ISP is an entity that provides its customers the ability to obtain on-line information through the Internet. ISPs purchase analog and digital lines from local exchange carriers to connect to their dial-in subscribers.[11] Under one typical arrangement, an ISP customer dials a seven-digit number to reach the ISP server in the same local calling area. The ISP, in turn, combines "computer processing, information storage, protocol conversion, and routing with

---

[5] *GTE DSL Designation Order* at ¶ 12.

[6] On September 3, 1998, the Competitive Pricing Division granted GTE's Motion for Extension of Time to submit its Direct Case. *See* GTE Tel. Operating Cos. Transmittal No. 1148 -- Pleading Cycle, CC Docket No. 98-79, Public Notice, DA 98-1793 (rel. September 3, 1998).

[7] A list of parties submitting comments is included at Appendix A.

[8] 47 U.S.C. § 230; *see also Reno v. American Civil Liberties Union*, 117 S. Ct. 2329, 2334 (1997).

[9] Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11531, 11532 (1998) (*Universal Service Report to Congress*).

[10] *Id.* at 11531, 11532.

[11] *Id.* at 11532.

transmission to enable users to access Internet content and services."[12] Under this arrangement, the end user generally pays the LEC a flat monthly fee for use of the local exchange network[13] and generally pays the ISP a flat, monthly fee for Internet access. The ISP typically purchases business lines from a LEC, for which it pays a flat monthly fee which allows unlimited incoming calls.

7. Although the Commission has recognized that enhanced service providers (ESPs), including ISPs, use interstate access services,[14] since 1983 it has exempted ESPs from the payment of certain interstate access charges.[15] Pursuant to this exemption, ESPs are treated as

---

[12] *Id.* at 11531.

[13] Such fees include charges for both intrastate and interstate usage of the local exchange network.

[14] *See, e.g.,* MTS and WATS Market Structure, CC Docket No. 78-72, Memorandum Opinion and Order, 97 FCC 2d 682, 711 (1983) (*MTS/WATS Market Structure Order*) ("[a]mong the variety of users of access service are . . . enhanced service providers"); Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, CC Docket No. 87-215, Order, 3 FCC Rcd 2631 (1988) (*ESP Exemption Order*) (referring to "certain classes of exchange access users, including enhanced service providers"); Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, Order, 2 FCC Rcd 4305, 4306 (1987) (ESPs, "like facilities-based interexchange carriers and resellers, use the local network to provide interstate services"); Access Charge Reform, CC Docket No. 96-262, FCC No. 97-158, First Report and Order, 12 FCC Rcd 15982, 16131-32 (1997) (*Access Charge Reform Order*) ("Information service providers may use incumbent LEC facilities to originate and terminate interstate calls.")

The *Access Charge Reform Order* refers to "information service providers." As discussed in that order, the term "enhanced services," defined in the Commission's rules as "services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information," 47 C.F.R. § 64.702(a), is quite similar to "information services," defined in the Communications Act of 1934 (Act) as offering "a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." 47 U.S.C. § 153(20). *See also Universal Service Report to Congress*, 13 FCC Rcd 11501, 11516 (reiterating Commission's conclusion that the definitions of telecommunications services and information services, added to the Act by the Telecommunications Act of 1996, "essentially correspond to the pre-existing categories of basic and enhanced services"). For purposes of this order, we refer to providers of enhanced services and providers of information services as ESPs, a category which includes Internet service providers, which we refer to here as ISPs.

[15] The exemption was adopted at the inception of the interstate access charge regime to protect certain users of access services, such as ESPs, that had been paying the generally much lower business service rates from the rate shock that would result from immediate imposition of carrier access charges. *See 1983 MTS/WATS Market Structure Order*, 97 FCC 2d at 715.

end users for purposes of assessing access charges.[16] Thus, ESPs generally pay local business rates and interstate subscriber line charges for their switched access connections to local exchange company central offices.[17] They also pay the special access surcharge on their special access lines under the same conditions applicable to end users.[18] In the *Access Charge Reform Order*, the Commission decided to maintain the existing pricing structure and continue to treat ESPs as end users for the purpose of applying access charges.[19] The Commission stated that retaining the ESP exemption would avoid disrupting the still-evolving information services industry and advance the goals of the Telecommunications Act of 1996 to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services."[20]

B. GTE's ADSL Tariff

8. On May 15, 1998, GTOC filed Transmittal No. 1148, proposing to offer GTE DSL Solutions-ADSL Service, which GTE describes as an interstate data special access service that provides a high speed access connection between an end user subscriber and an ISP by utilizing a combination of the subscriber's existing local exchange physical plant (*i.e.*, copper facility), a

---

[16] *ESP Exemption Order*, 3 FCC Rcd at 2635 n.8, 2637 n.53.

[17] *Id.* at 2631, 2635 n.8, 2637 n.53. The subscriber line charge (SLC) is an access charge imposed on end users to recover at least a portion of the cost of the interstate portion of LEC facilities used to link each end user to the public switched telephone network ("PSTN"). *Access Charge Reform Order*, 12 FCC Rcd at 16010.

[18] 47 C.F.R. § 69.2(m) (End user means "any customer of an interstate or foreign telecommunications service that is not a carrier except that a carrier other than a telephone company shall be deemed to be an "end user" when such carrier uses a telecommunications service for administrative purposes and a person or entity that offers telecommunications services exclusively as a reseller shall be deemed to be an "end user" if all resale transmissions offered by such reseller originate on the premises of such reseller."); *see also* 47 C.F.R. § 69.5(a) ("End user charges shall be computed and assessed upon public end users, and upon providers of public telephones. . ."); *see also* 47 C.F.R. § 69.5 (c) ("Special access surcharges shall be assessed upon users of exchange facilities that interconnect these facilities with means of interstate or foreign telecommunications to the extent that carrier's carrier charges are not assessed upon such interconnected usage."); *see also* 47 C.F.R. § 69.115.

[19] *Access Charge Reform Order*, 12 FCC Rcd 15982, 16133, 16134 (1997). On August 19, 1998, the U.S. Court of Appeals for the Eighth Circuit affirmed the FCC's *Access Charge Reform Order*. Specifically, the court found that the Commission's decision to exempt information services providers from the application of interstate access charges (other than SLCs) was consistent with past precedent, did not unreasonably discriminate in favor of ISPs, did not constitute an unlawful abdication of the Commission's regulatory authority in favor of the states, and did not deprive incumbents of the ability to recover their pertinent costs. *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523, 542 (8th Cir. 1998).

[20] *Id.* at 16133. *See also* 47 U.S.C. § 230(b)(2) ("It is the policy of the United States to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.")

specialized DSL-equipped wire center, and transport to the network interface where the ISP will connect to GTE's network.[21] Specifically, according to GTE, an end user's modem is connected to the network interface device/splitter at the end user premises.[22] GTE explains that its service "consists of the connection from the network interface device over an existing facility to a splitter, modem, and ADSL equipment combination in the serving wire center."[23] The interstate special access data traffic is routed via a digital subscriber line access multiplexer, or DSLAM, to GTE's "connection point" or packet-switched network.[24] The GTE ADSL wire center is connected with the GTE ADSL connection point using frame relay interface capabilities.[25] ISPs connect their networks to the GTE ADSL connection point using frame relay services offered elsewhere in its tariff.[26] The subscriber's use of GTE's local exchange plant for circuit switched intrastate and interstate voice and data calls is unaffected by the DSL service.[27]

9. GTE's ADSL service, like other xDSL technology,[28] enables ISPs and other customers[29] to provide to their end user subscribers "the simultaneous transmission of voice dialed calls and high speed data access over a single transmission path . . . at data speeds that far exceed the current widespread method of voice path dial access to ISPs," thereby reducing the need for subscribers to obtain additional lines for their Internet capabilities.[30] According to GTE, this technology provides end user subscribers a reliable and highly efficient way to reach the Internet; it allows information to be retrieved more quickly; and it supports expanded offerings for

---

[21] GTOC Transmittal No. 1148, Description and Justification at 1.

[22] *Id.* at 3.

[23] *Id.*

[24] *Id.*

[25] *Id.*

[26] *Id.*

[27] *Id.* at 2.

[28] The "x" in xDSL is a place holder for the various types of DSL service, such as GTE's ADSL (asymmetric digital subscriber line), HDSL (high-speed digital subscriber line), UDSL (universal digital subscriber line), VDSL (very-high speed digital subscriber line), and RADSL (rate-adaptive digital subscriber line).

[29] GTE notes that its ADSL service may also be ordered by businesses, IXCs, and competitive LEC customers. GTE Direct Case at iii.

[30] GTOC Transmittal No. 1148, Description and Justification at 1; GTE Direct Case at 1.

enhanced services.[31] GTE notes that an end user still will need to purchase standard residential or business service.[32]

10. GTE expects ISPs to purchase GTE's ADSL service to provide faster connections to end user customers. End users, however, can purchase the service directly from GTE so long as the ISP to which they subscribe is connected to GTE's ADSL network.[33]

11. An end user accesses the Internet using GTE's ADSL service by turning on the computer and clicking on the icon for the ISP service.[34] The end user thus obtains a dedicated connection to the ISP, rather than a circuit-switched, dial-up connection.[35] The communication then travels from the ISP's point of presence to its web server.[36] GTE proposes to offer this service through an interstate access tariff, claiming that: 1) Internet traffic is primarily interstate in nature; 2) the ADSL service offering involves dedicated transport of data; and 3) GTE's ADSL service is an access service under section 69.2 of the Commission's rules.[37]

12. In its Direct Case, GTE contends that its ADSL service offering is inherently an interstate service because it will be used to communicate with parties outside the end user's home state via e-mail, to access remote databases, and to interact with Internet websites throughout the country and the world.[38] GTE argues that it is well established that the "nature of the communication itself rather than the physical location of the technology determines the jurisdictional classification of a service."[39] GTE relies upon several decisions where courts have confirmed that the jurisdictional analysis of a communications service requires an examination of

---

[31] GTOC Transmittal No. 1148, Description and Justification at 1.

[32] GTE Direct Case at n.14.

[33] GTOC Transmittal No. 1148, Description and Justification at 4.

[34] GTE Direct Case at 5.

[35] *Id.*

[36] *Id.*

[37] GTOC Transmittal No. 1148, Description and Justification at 2; 47 C.F.R. § 69.2(b).

[38] GTE Direct Case at 7.

[39] *Id.* at 8 (citing Petition for Emergency Relief and Declaratory Ruling Filed by BellSouth Corporation, 7 FCC Rcd 1619, 1621 (1992) (*BellSouth MemoryCall*)).

"the totality of the communication from its inception to its completion,"[40] without regard to points of intermediate switching.[41]

13. GTE also argues that application of the inseverability doctrine mandates a finding that its ADSL service offering is interstate and subject to federal tariffing requirements because: 1) Internet traffic involves multiple parties throughout the nation and around the world, rendering traditional jurisdictional measures meaningless; and 2) it is not technically possible to segregate and measure Internet traffic based on the geographic location of the parties.[42] In the alternative, GTE claims that its ADSL service offering, as a dedicated access offering, warrants federal regulation because it exceeds the ten percent *de minimis* threshold set for interstate regulation of special access services.[43]

14. In addition, GTE asserts that the Commission repeatedly has classified Internet traffic as predominantly interstate, and that, therefore, tariffing its ADSL service offering on the federal level is appropriate.[44] GTE contends that the Commission's designation of ISPs as "end users" for purposes of assessing access charges does not mean that ISPs are end users for purposes of defining the termination point of an end-to-end communication.[45] Finally, GTE argues that the alleged risk of an unlawful "price squeeze" provides no basis for the Commission to abdicate its jurisdiction over interstate services.[46] GTE states that Northpoint's contention that one set of regulators should review both GTE's interstate ADSL rates and GTE's rates for unbundled network elements (UNEs) must fail because the relationship between UNE and service pricing is subject to the dual regulatory structure inherent in the Act.[47]

---

[40] *Id.* at 8-10 (citing *United States v. AT&T*, 57 F. Supp. 451, 453-5 (S.D.N.Y. 1944), *aff'd*, 325 U.S. 837 (1945)).

[41] *Id.* at 11 (Southwestern Bell Telephone Company, CC Docket No. 88-180, Order Designating Issues for Investigation, 3 FCC Rcd 2339, 2341 (1988) (*Southwestern Bell Telephone Company*).

[42] *Id.* at 15.

[43] *Id.* at 19.

[44] *Id.* at 20 (citing *Universal Service Report to Congress*, 13 FCC Rcd at 11572).

[45] *Id.* at 22.

[46] *Id.* at 24.

[47] *Id.*

15. Many competitive LECs and ISPs urge the Commission to treat Internet traffic delivered via GTE's ADSL service offering as one intrastate "local" call terminating at the ISP's local server, followed by a second, separate transmission from the ISP server to the Internet.[48] Specifically, these commenters argue that, for jurisdictional purposes, the end-to-end ADSL communication consists of two distinct components: an intrastate "telecommunications service," which ends at the ISP's local server, and an interstate "information service," which begins where the telecommunications service ends.[49] In addition, many competitive LECs observe that, because ISPs are permitted to purchase services from incumbent LECs under the same intrastate tariffs available to end users, ISP traffic delivered via GTE's ADSL service offering constitutes local traffic for separations purposes.[50] Therefore, competitive LECs argue that such traffic must terminate at the ISP's point of presence.[51] Finally, several commenters maintain that GTE's ADSL service offering must be tariffed on the state level, because it does not qualify as an "access service" under section 69.2 of the Commission's rules.[52]

III. DISCUSSION

16. We agree that GTE's DSL Solutions-ADSL service offering is an interstate service that is properly tariffed at the federal level.[53] Section 2(a) of the Act grants the Commission

---

[48] *See, e.g.,* ICG Opposition at 4; ALTS Opposition at 5; Hyperion Opposition at 8; Intermedia/e.spire Opposition at 4; and RCN Comments at 5; *see also* Washington Commission Comments at 1.

[49] *See, e.g.,* Focal Comments at 4-5 ("The telecommunications from the end user to the ISP terminates at the ISP because the ISP is an end user of telecommunications and a provider of information services. . . . The *information service* provided by the ISP is wholly separate from the local exchange *telecommunications service* provided by the local exchange carrier.") (Emphases in original); *see also* Washington Commission Comments at 1; ICG Opposition at 4-6; ALTS Opposition at 5; Hyperion Opposition at 3; MCI/Worldcom Comments at 5; and ITC/KMC Opposition at 3. The Act defines "information services" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." 47 U.S.C. § 153(20) (emphasis added). "Telecommunications service" is defined as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available to the public, regardless of the facilities used." 47 U.S.C. § 153(46).

[50] *See, e.g,* CompTel Opposition at 2-3; CIX Comments at 3; ICG Opposition at 5; ALTS Opposition at 5; Washington Commission Comments at 1; and Hyperion Opposition at 5, 8.

[51] *See, e.g,* CompTel Opposition at 2-3; CIX Comments at 3; ICG Opposition at 5; ALTS Opposition at 5; and Hyperion Opposition at 5, 8.

[52] *See* ALTS Opposition at 4, 18-19; *see also* ICG Opposition at 6-7; Hyperion Opposition at 3; and ITC/KMC Opposition at 3.

[53] *See, e.g.,* GTE Direct Case at 7; Ameritech Comments at 9; Time Warner Comments at 4; US West Comments at 1; Southwestern Bell, *et al.*, Comments at 1; and Bell Atlantic Comments at 2. *See also* Northpoint

jurisdiction over "all interstate and foreign communication by wire."[54] Traffic is deemed interstate "when the communication or transmission originates in any state, territory, possession of the United States, or the District of Columbia and terminates in another state, territory, possession, or the District of Columbia."[55]

17. As many commenters note,[56] the Commission traditionally has determined the jurisdictional nature of communications by the end points of the communication and consistently has rejected attempts to divide communications at any intermediate points of switching or exchanges between carriers. In *BellSouth MemoryCall*, for example, the Commission considered the jurisdictional nature of traffic that consisted of an incoming interstate transmission (call) to the switch serving a voice mail subscriber and an intrastate transmission of that message from that switch to the voice mail apparatus.[57] The Commission determined that the entire transmission constituted one interstate call, because "there is a continuous path of communications across state lines between the caller and the voice mail service."[58]

18. Similarly, in *Teleconnect*, the Bureau examined whether a call using Teleconnect's "All-Call America" (ACA) service, a nationwide 800 travel service that uses AT&T's Megacom 800 service, is a single, end-to-end call.[59] Generally, an ACA call is initiated by an end user from a common line open end; the call is routed through a LEC to an AT&T Megacom line, and is then transferred from AT&T to Teleconnect by another LEC.[60] At that point, Teleconnect routes the call through the LEC to the end user being called.[61] The Bureau rejected the argument that the

---

Comments at 1; USTA Comments at 2; ACI/Firstworld Comments at 4.

[54] 47 U.S.C. § 152(a).

[55] Federal-State Joint Board on Universal Service, Report and Order, 12 FCC Rcd 8776, 9173 (1997) (*Universal Service Order*); *see also Universal Service Report to Congress*, 13 FCC Rcd at 11555.

[56] *See, e.g.,* GTE Direct Case at 11-14; PacBell Rebuttal at 6-7; *see also* Ameritech Comments at 7; Time Warner Comments at 3-4; GTE Rebuttal at 2; USTA Comments at 3; U S West Comments at 5; Bell Atlantic Comments at 5; MCI/Worldcom Comments at 5; Covad Comments at 3; and ACI/Firstworld Comments at 4.

[57] *BellSouth MemoryCall*, 7 FCC Rcd at 1620.

[58] *Id.*

[59] *Teleconnect Company. v. Bell Telephone Company of Penn.*, E-88-83, 10 FCC Rcd 1626, 1628 (1995) (*Teleconnect*).

[60] *Id.* at 1627.

[61] *Id.* at 1627-28.

(ACA) 800 call used to connect to an interexchange carrier's (IXC's) switch was a separate and distinct call from the call that was placed from that switch.[62] The Commission affirmed, noting that "both court and Commission decisions have considered the end-to-end nature of the communications more significant than the facilities used to complete such communications. According to these precedents, we regulate an interstate wire communication under the Communications Act from its inception to its completion."[63] The Commission concluded that "an interstate communication does not end at an intermediate switch. . . . The interstate communication itself extends from the inception of a call to its completion, regardless of any intermediate facilities."[64] In addition, in *Southwestern Bell Telephone Company*,[65] the Commission rejected the argument that "a credit card call should be treated for jurisdictional purposes as two calls: one from the card user to the interexchange carrier's switch, and another from the switch to the called party" and concluded that "switching at the credit card switch is an intermediate step in a single end-to-end communication."[66]

19. Consistent with these precedents, we conclude that the communications at issue here do not terminate at the ISP's local server, as some competitive LECs and ISPs contend, but continue to the ultimate destination or destinations, very often at a distant Internet website accessed by the end user.[67] The fact that the facilities and apparatus used for GTE's ADSL service offering may be located within a single state does not affect our jurisdiction. As the Commission stated in *BellSouth Memory Call,* "this Commission has jurisdiction over, and regulates charges for, the local network when it is used in conjunction with the origination and termination of interstate calls."[68] Indeed, in the vast majority of cases, the facilities that incumbent LECs use to provide interstate access are located entirely within one state.[69]

---

[62] *Id.* at 1629.

[63] *Id.* (citing *NARUC v. FCC*, 746 F.2d 1492, 1498 (D.C. Cir. 1984) (concluding that a physically intrastate in-WATS line, used to terminate an end-to-end interstate communication, is an interstate facility subject to Commission regulation)). *See also United States v. AT&T*, 57 F. Supp. 451, 454 (S.D.N.Y. 1944); *New York Telephone Company*, 76 FCC 2d 349, 352 (1980).

[64] *Id.*

[65] *Southwestern Bell Telephone Company*, 3 FCC Rcd at 2339.

[66] *Id.* at 2341.

[67] *See, e.g.,* Ameritech Comments at 9; Bell Atlantic Comments at 5; *see also* ¶ 21, 26, *infra.*

[68] *BellSouth Memory Call*, 7 FCC Rcd at 1621 (citing *MTS/WATS Market Structure*).

[69] *NARUC v. FCC*, 746 F.2d 1492, 1499 (D.C. Cir. 1984) ("The dividing line between the regulatory jurisdictions of the FCC and states depends on the 'nature of the communications which pass through the facilities

20. We disagree with those commenters who argue that, for jurisdictional purposes, an end-to-end ADSL communication must be separated into two components: an intrastate telecommunications service, provided in this instance by GTE, and an interstate information service, provided by the ISP.[70] As discussed above, the Commission analyzes the totality of the communication when determining the jurisdictional nature of a communication.[71] The Commission previously has distinguished between the "telecommunications services component" and the "information services component" of end-to-end Internet access for purposes of determining which entities are required to contribute to universal service.[72] Although the Commission concluded that ISPs do not appear to offer "telecommunications service," and thus are not "telecommunications carriers" that must contribute to the Universal Service Fund,[73] it has never found that "telecommunications" ends where "enhanced" information service begins. To the contrary, in the context of open network architecture (ONA) elements, the Commission stated that "an otherwise interstate basic service . . . does not lose its character as such simply because it is being used as a component in the provision of a[n enhanced] service that is not subject to Title II."[74] Under the definition of information service added by the 1996 Act, an information service, while not a telecommunications service itself, is provided via telecommunications.[75] As explained in the *Universal Service Report to Congress*, because information services are offered via telecommunications, they necessarily require a transmission component in order for users to

---

[and not on] the physical location of the lines.'" (citations omitted)).

[70] *See, e.g.*, Focal Comments at 4-5; ICG Opposition at 6; Splitrock Opposition at 3.

[71] *See United States v. AT&T*, 57 F. Supp. 451, 453-55 (S.D.N.Y. 1944), *aff'd*, 325 U.S. 837 (1945).

[72] *Universal Service Order*, 12 FCC Rcd at 9180, 9181.

[73] *Id.* at 9180. We confirmed this view in the *Universal Service Report to Congress. Universal Service Report to Congress*, 13 FCC Rcd at 11522.

[74] *See* Filing and Review of Open Network Architecture Plans, 4 FCC Rcd 1, 141 (1988) ("when an enhanced service is interstate (that is, when it involves communications or transmissions between points in different states on an end-to-end basis), the underlying basic services are subject to Title II regulation.") *See, e.g.*, Amendment of Section 64.702 of the Commission's Rules and Regulations, 2 FCC Rcd 3072, 3080 (1987) ("carriers must provide efficient nondiscriminatory access to the basic service facilities necessary to support their competitors's enhanced services. . .") *See also BellSouth MemoryCall*, 7 FCC Rcd at 1621 (rejecting "two call" argument as applied to interstate call to voicemail apparatus, even though voicemail is an enhanced service).

[75] *See* 47 U.S.C. § 153(20) ("Information service" means "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . .") (emphasis added); *see also* 47 C.F.R. § 64.702(a) (enhanced services are provided "over common carrier transmission facilities used in interstate communications.")

access information.[76] We, therefore, analyze ISP traffic as a continuous transmission from the end user to a distant Internet site.

21. Nor are we are persuaded by competitive LEC arguments that, because the Commission has treated ISPs as end users for purposes of the ESP exemption, an Internet call must terminate at the ISP's point of presence.[77] As discussed above, GTE's ADSL service offering is designed to be used by ISPs as part of their end-to-end Internet access service.[78] The Commission traditionally has characterized the link from an end user to an ESP as an interstate access service.[79] In the *MTS/WATS Market Structure Order*, for instance, the Commission concluded that ESPs are "among a variety of users of access service" in that they "obtain local exchange services or facilities which are used, in part or in whole, for the purpose of completing interstate calls which transit its location and, commonly, another location in the exchange area."[80] The fact that ESPs are exempt from certain access charges and purchase their PSTN links through local tariffs does not transform the nature of traffic routed to ESPs. That the Commission exempted ESPs from access charges indicates its understanding that they in fact use interstate access service; otherwise, the exemption would not be necessary.[81] We emphasize that the Commission's decision to treat ISPs as end users for access charge purposes does not affect the Commission's ability to exercise jurisdiction over such traffic.

[redacted]a

[76] *Universal Service Report to Congress*, 13 FCC Rcd at 11529.

[77] *See, e.g.*, CompTel Opposition at 3; PacWest Direct Case at 6-10.

[78] GTE Direct Case at 4.

[79] *See, e.g., MTS/WATS Market Structure Order*, 97 FCC 2d at 711; Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, CC Docket No. 87-215, 2 FCC Rcd 4305 (1987).

[80] *Id.*; *see also* Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, Notice of Proposed Rulemaking, 2 FCC Rcd at 4305 (1987) ("We . . . intended to impose interstate access charges on enhanced service providers for their use of local exchange facilities to originate and terminate their interstate offerings."); *ESP Exemption Order*, 3 FCC Rcd at 2635 n.8, 2637 n.53 (1988) ("we granted temporary exemptions from payment of access charges to certain classes of exchange access users, including enhanced service providers.")

[81] *See, e.g., id. See also* Access Charge Reform, Notice of Proposed Rulemaking, Notice of Inquiry, 11 FCC Rcd 21354, 21478 (1996) ("although ESPs may use incumbent LEC facilities to originate and terminate interstate calls, ESPs should not be required to pay interstate access charges.") (emphasis added).

[redacted]

23. GTE argues that its ADSL service is properly tariffed at the federal level on the ground that it similar to existing special access services that are subject to federal regulation under the mixed-use facilities rule because more than ten percent of the traffic is interstate.[84] The mixed-use facilities rule was introduced in a 1989 proceeding involving the re-examination of the separations treatment of "mixed-use" special access lines.[85] Specifically, in the *MTS/WATS Market Structure Order*, the Commission adopted the Joint Board's recommendation that "mixed-use" special access lines (*i.e.*, lines carrying both intrastate and interstate traffic) are subject to the Commission's jurisdiction where it is not possible to separate the uses of the special access lines by jurisdiction.[86] The Commission found that special access lines carrying more than *de minimis* amounts of interstate traffic to private line systems should be assigned to the interstate jurisdiction.[87] Interstate traffic is deemed *de minimis* when it amounts to ten percent or less of the total traffic on a special access line.[88]

---

[82] *Universal Service Order*, 12 FCC Rcd at 9173.

[83] *See, e.g.,* Kevin Werbach, Digital Tornado: The Internet and Telecommunications Policy, OPP Working Paper No. 29, at 45 (Mar. 1997).

[84] *See, e.g.,* GTE Rebuttal at 15.

[85] MTS and WATS Market Structure, Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, 4 FCC Rcd 5660 (1989) (*MTS/WATS Market Structure Separations Order*).

[86] *Id.*

[87] *Id.* at 5660, 5661. A private line service is a service for communications between specified locations for a continuous period or for regularly recurring periods at stated hours. 47 C.F.R. Pt 36, App. For example, high volume voice telephony customers purchase private line services as a means of obtaining direct access to interexchange carrier (IXC) networks.

[88] *Id.* at 5660.

24. GTE contends that its ADSL service is similar to special access lines currently subject to federal regulation under the mixed-use facilities rule, and, thus, its ADSL service should be similarly regulated at the federal level.[89] Section 69.2 of the Commission's rules defines "access service" as including "services and facilities provided for the origination or termination of any interstate or foreign telecommunication."[90] There are two categories of access service: switched and special. Switched access services share the local switch to route originating and terminating interstate toll calls. Special access services, by contrast, generally provide a dedicated path between an end user and an IXC's point of presence. The special access category includes a wide variety of facilities and services, such as wideband data, video, and program audio services.[91]

25. We agree that GTE's ADSL service is a special access service, thus warranting federal regulation under the "ten percent" rule. Like the point-to-point private line service high volume telephony customers purchase for direct access to IXCs' networks, GTE's ADSL service provides end users with a direct access to their selected ISPs, over a connection that is dedicated to ISP access.[92] This dedicated access enables end users to avoid the problems associated with circuit-switched, dial-up access, such as long holding times and inability to connect to the Internet due to network congestion. The ADSL service also is similar to traditional private line services in that both services may carry interstate and intrastate traffic, and both services provide direct access from an end user to a service provider's (ISP or IXC) point of presence.

26. We are not persuaded by ALTS's argument that ADSL service does not fall within the definition of special access because it does not constitute "interstate telecommunications."[93] As stated above, we disagree with ALTS's suggestion that the "telecommunications" service ends where the "information service" begins.[94] Furthermore, as discussed above, we conclude that more than a *de minimis* amount of Internet traffic is destined for websites in other states or other countries, even though it may not be possible to ascertain the destination of any particular transmission. For these reasons, we conclude that GTE's ADSL service is subject to federal jurisdiction under the Commission's mixed-use facilities rule.

---

[89] GTE Direct Case at 19.

[90] 47 U.S.C. § 69.2(b).

[91] *See* Investigation of Access and Divestiture Related Tariffs, CC Docket No. 83-1145, Phase I and Phase II, Part I, FCC 85-70, 57 Rad. Reg. 2d 1459, 1465 (Com. Car. Bur. 1985).

[92] GTOC Description and Justification at 1.

[93] *See* ALTS Opposition at 4, 18-19; *see also* ICG Opposition at 6-7; Hyperion Opposition at 3; and ITC/KMC Opposition at 3.

[94] *See* ¶ 20, *supra*.

27. We emphasize that we believe federal tariffing of ADSL service is appropriate where the service will carry more than a *de minimis* amount of inseparable interstate traffic.[95] Should GTE or any other incumbent LEC offer an xDSL service that is intrastate in nature, for example, a "work-at-home" application where a subscriber could connect to a corporate local area network, that service should be tariffed at the state level.[96]

28. Several parties further argue that because it is difficult, if not impossible, to separate intrastate and interstate Internet traffic, federal regulation of this traffic is appropriate pursuant to the inseverability doctrine.[97] Under the inseverability doctrine, pre-emption of state regulation is permissible "where it is not possible to separate the interstate and the intrastate components of the asserted FCC regulation."[98] The Commission bears the burden of demonstrating that state regulation "negates the exercise by the FCC of its own lawful authority over interstate communications."[99] In light of our finding that GTE's ADSL service is subject to federal jurisdiction under the Commission's mixed use facilities rule and properly tariffed as an interstate service, we need not reach the question of whether the inseverability doctrine applies.

29. Many commenters urge the Commission to clarify that any conclusion on the jurisdictional nature of GTE's ADSL service has no bearing on the jurisdictional nature of circuit-switched traffic, particularly dial-up calls to the local ISP platform.[100] These parties contend that characterizing GTE's ADSL service as interstate would allow incumbent LECs to avoid their obligations to pay reciprocal compensation to competitive LECs for the transport and termination

---

[95] *See, e.g.,* GTE Rebuttal at 15 (GTE will ask every ADSL customer to certify that ten percent or more of its traffic is interstate).

[96] *See* GTE Rebuttal at 15-16 (if ADSL "traffic warrants state tariffing, GTE will do so").

[97] GTE Direct Case at 18; Time Warner Comments at 2; USTA Comments at 6-7; Covad Comments at 3-7; and Bell Atlantic Comments at 3-4.

[98] *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 375 n.4 (1986); *see also North Carolina Utils. Comm'n v. FCC*, 537 F.2d 787 (4th Cir.), *cert. denied*, 429 U.S. 1027 (1976); *North Carolina Utils. Comm'n v. FCC*, 552 F.2d 1036 (4th Cir.), *cert. denied*, 434 U.S. 874 (1977).

[99] *NARUC v. FCC*, 880 F.2d 422, 429 (D.C. Cir. 1989) (citing *North Carolina Utils. Comm'n v. FCC*, 552 F.2d 1036, 1043 (4th Cir.) (where Commission acted within its authority to permit subscribers to provide their own telephones, pre-emption of inconsistent state regulation prohibiting subscribers from connecting their own phones unless used exclusively in interstate service upheld since state regulation would negate the federal tariff), *cert. denied,* 434 U.S. 874 (1977)).

[100] *See, e.g.*, ICG Opposition at 11; ALTS Opposition at 22; Intermedia/e.spire Opposition at 5; Splitrock Opposition at 3; Time Warner Comments at 2, 9; ITC/KMC Opposition at 8; Ohio Commission Comments at 7; and AT&T Opposition at 8.

of circuit switched, dial-up calls from end users to ISPs.[101] As stated above, our decision in this proceeding relates only to the jurisdictional treatment of the high speed access connection between an end user subscriber and an ISP, as described in GTE's tariff. We make no determination in this Order concerning whether incumbent LECs should be required to pay reciprocal compensation when they exchange Internet traffic with competitive LECs.[102]

30. Finally, we reject the argument advanced by some commenters that the Commission should defer the tariffing of DSL services to the states in order to lessen the possibility of a price squeeze.[103] These commenters argue that federal tariffing of DSL services will subject competitors to a price squeeze, because the federally tariffed DSL rate may be lower in some states than the sum of the prices of unbundled network element inputs, such as loops and collocation, that competitive LECs must purchase to offer competing services.[104] They suggest that the Commission should either: (1) require GTE to impute to its ADSL service charges for loops, collocation, and transport elements that it imposes on its competitors; or (2) defer tariffing of DSL services to the states, which have jurisdiction over the pricing of network elements.[105]

31. We do not agree that the possibility of a price squeeze warrants transfer of our ratemaking authority over DSL services to the states. First, it is not clear that fear of a price squeeze is well-founded. Northpoint's argument is premised on its assertion that GTE's rate for its ADSL service "is less than the price it charges competitive LECS for the loops, collocation and transport necessary to provide DSL service,"[106] but this is not an apt comparison. When a requesting carrier purchases these unbundled network elements, the facilities in question are capable of supporting a variety of services in addition to ADSL, such as local exchange service and access services. Competitors need not recover their costs from ADSL service alone; they have the same opportunity as GTE to recover the costs of network elements from all of the services they offer using those facilities.[107] Thus, a carrier choosing to offer only data service over a facility that is capable of carrying more, such as GTE's ADSL offering, may not reap the entire

---

[101] *See, e.g.*, ICG Opposition at 11; ALTS Opposition at 22; Intermedia/e.spire Opposition at 5; Splitrock Opposition at 3; Time Warner Comments at 2, 9; ITC/KMC Opposition at 8; and AT&T Opposition at 8.

[102] *See* ¶ 2, *supra.*

[103] *See, e.g.*, Northpoint Response at 5; ALTS Opposition at 14.

[104] Northpoint Response at 3.

[105] *Id.* at 4-5.

[106] *Id.* at 4.

[107] *See e.g.*, Bell Atlantic Comments at 11.

revenue stream that the facility has to offer. Moreover, taken to its logical conclusion, Northpoint's reasoning would suggest that all interstate access services be regulated by the states, because those services can be provided by competitors through the use of unbundled network elements priced by the states.[108] Such an outcome is neither necessary nor contemplated by the Act.[109]

32. This Commission is well-versed in addressing the price squeeze concerns of new entrants and has in the past successfully forestalled attempts by incumbent LECs to shift costs to monopoly services in order to justify rates that effect a price squeeze.[110] We have ample authority under the Act to conduct an investigation to determine whether rates for DSL services are just and reasonable.[111] Moreover, although states have jurisdiction to determine the prices of unbundled network elements, those prices are a matter of public record that the Commission may examine in the context of determining the reasonableness of DSL rates or in the event of a complaint alleging a price squeeze. We conclude, therefore, that federal tariffing of interstate DSL services, such as the one at issue here, is appropriate, and we will address any price squeeze concerns as they arise.

IV. ORDERING CLAUSES

33. Accordingly, IT IS ORDERED, pursuant to Section 204(b) of the Communications Act of 1934, 47 U.S.C. § 204(b), that GTOC Transmittal No. 1148, proposing to offer GTE DSL Solutions-ADSL Service, is an interstate access service subject to this Commission's jurisdiction.

34. IT IS FURTHER ORDERED, that the investigation and accounting order imposed by the Common Carrier Bureau in CC Docket No. 98-79 with respect to GTE for the designated issues as discussed herein IS TERMINATED.

---

[108] GTE Direct Case at 25-26; Ameritech Comments at 26.

[109] *See, e.g., Competitive Telecomms. Ass'n v. FCC*, 117 F.3d 1068 (8th Cir. 1997) (upholding Commission decision to allow incumbent LECs for interim period to collect access charges from interconnecting carriers for all interstate minutes traversing the incumbent LECs' local switches, for which the carriers pay unbundled local switching charges).

[110] *See, e.g.*, INFONXX, Inc. v. New York Telephone Company, Memorandum Opinion and Order, 13 FCC Rcd 3589 (1997); In the Matter of Amendment of the Commission's Rules to Establish Competitive Service Safeguards for Local Exchange Carrier Provision of Commercial Mobile Radio Services, Report and Order, 12 FCC Rcd 15668 (1997); *see also* ACI/Firstworld Comments at 9.

[111] *E.g.*, 47 U.S.C. §§ 204-205.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

APPENDIX A

Comments

ACI Corp.
America Online
Ameritech
Association for Local Telecommunications Services (ALTS)
AT&T Corp.
Bell Atlantic
BellSouth Corporation
Commercial Internet eXchange Association
Competitive Telecommunications Association (CompTel)
Covad Communications Company (Covad)
e.spire Communications, Inc.
Firstworld Communications, Inc.
Florida Digital Network, Inc.
Focal Communications Corporation
Hyperion Telecommunications, Inc.
GTE Service Corporation
GST Telecom Inc.
ICG Telecom Group
Intermedia Communications, Inc.
Internet Service Providers' Consortium (ISPC)
ITC^Delta Communications, Inc. (ITC)
KMC Telecom, Inc.
MediaOne Group, Inc.
MCI/Worldcom, Inc. (MCI)
National Association of Regulatory Utility Commissioners (NARUC)
New York Department of Public Service Commission
Northpoint Communications, Inc. (Northpoint)
Pacific Bell Telephone Company (PacBell)
Pac-West Telecomm, Inc.
Pennsylvania Public Utility Commission
Public Utility Commission of Texas
Public Utility Commission of Oregon
RCN Telecomm Services, Inc.
Southwestern Bell Telephone Company, Nevada Bell Telephone Company (SBC)
Splitrock Services, Inc.
Sprint Corporation
Time Warner Communications

United States Telephone Association (USTA)
U S West, Inc.
Washington Utilities and Transportation Commission
Virginia State Corporation Commission

October 30, 1998

Separate Statement of Commissioners Harold Furchtgott-Roth and Gloria Tristani, Dissenting in Part

We support today's decision finding that GTE's DSL tariff includes an interstate service offering properly filed at the federal level. We write separately, however, to express our unwillingness to address the broader issues related to the jurisdictional nature of ISP traffic in this proceeding. That broader issue seems to be of enormous importance to many businesses, industries and consumers today, and doubtlessly many more tomorrow. The Commission faces no statutory deadline on the broader issue of the jurisdictional nature of ISP traffic, and thus we would prefer caution.

The Commission does face a statutory deadline on the GTE tariff, but we could have allowed that tariff to go into effect as a lawful provision of a private service without addressing these broader questions. Such a result would not have reached the broader issue of whether ISP traffic over this DSL service is inherently interstate. Neither would such a decision have required the Commission to determine that "the communications at issue here do not terminate at the ISP's local server, as some CLECs and ISPs contend, but continue to the ultimate destination or destinations, very often at a distant Internet website accessed by the end user."[1] Nor would we need to conclude that "[t]he fact that the facilities and apparatus used for GTE's DSL service offering may be located within a single state does not affect our jurisdiction."[2] Such sweeping statements about this agency's jurisdiction -- and even more importantly the logical application of that framework -- could have broad and even unintended implications for many state commission decisions. Despite the majority's attempt to insulate State commission decisions, we are concerned that the logical application of that framework could have broader implications, and that is why we would urge greater caution and a narrower decision. Of course, we urge all parties to exercise caution pending the Commission's decision next week.

The majority's decision to address the jurisdictional nature of ISP traffic has the unfortunate consequence of necessitating a discussion of the relationship between today's decision and existing state commission decisions concerning reciprocal compensation. That analysis by the Commission could have major ramifications for incumbent LECs, CLECs, state commissions, and consumers. At this point, we are uncertain of how to characterize the impact, if any, of today's Order on state commission decisions. In our judgment, such a discussion should have been deferred until next week when we will address reciprocal compensation issues more comprehensively.

---

1 Memorandum Opinion and Order at para. 19.

2 *Id.*

We think that it is important to reach a well-reasoned solution, and one that can withstand the inevitable weight of both close judicial scrutiny and market reaction. If we proceed rapidly with a solution that has not been fully vetted, we will create even greater uncertainty in the market, raising the specter of possible defeat in court, and exacerbating an already difficult market condition. Such a result will have benefitted no one but the litigation profession.

As a narrower resolution of the tariff before us is possible, we would have preferred to meet that deadline in a manner that does not precommit this agency to a scheme whose logic could dictate a resolution of some of the reciprocal compensation issues that we are not prepared to endorse.

* * * *

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Intercarrier Compensation for ISP-Bound Traffic	)	CC Docket No. 99-68

ORDER ON REMAND AND REPORT AND ORDER

Adopted: April 18, 2001 **Released:** April 27, 2001

By the Commission: Chairman Powell issuing a statement; Commissioner Furchtgott-Roth dissenting and issuing a statement.

TABLE OF CONTENTS

Paragraph No.

Before the 1

ORDER oN REMAND AND REPORT AND ORDER 1

I. INTRODUCTION 2

II. executive summary 3

III. BACKGROUND 7

IV. DISCUSSIoN 11

A. Background 11

B. Statutory Analysis 12

1 ..... Introduction 13
2. Section 251(g) Excludes Certain Categories of Traffic from the Scope of "Telecommunication
3 ..... ISP-Bound Traffic Falls within the Categories Enumerated in Section 251(g) 20
4. Section 251(i) Preserves the Commission's Authority to Regulate Interstate Access Services
5. ISP-Bound Traffic Falls Within the Purview of the Commission's Section 201 Authority

C. Efficient Intercarrier Compensation Rates and Rate Structures 30

EXHIBIT
L-12
LB 9/9/05

1.....CPNP Regimes Have Distorted the Development of Competitive Markets 31
2.....Intercarrier Compensation for ISP-bound Traffic 36
3.....Relationship to Section 251(b)(5) 43
D. Conclusion 47

V. Procedural Matters 48

A. Final Regulatory Flexibility Analysis 48

1.....Need for, and Objectives of, this Order on Remand and Report and Order 48
2.Summary of Significant Issues Raised by the Public Comments in Response to the IRFA
3.Description and Estimate of the Number of Small Entities to Which Rules Will Apply 50
4.Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements
5.Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alte
VI. ordering clauses.....53

DISSENTING STATEMENT OF 64

I. INTRODUCTION

1. In this Order, we reconsider the proper treatment for purposes of intercarrier compensation of telecommunications traffic delivered to Internet service providers (ISPs). We previously found in the *Declaratory Ruling*[1] that such traffic is interstate traffic subject to the jurisdiction of the Commission under section 201 of the Act[2] and is not, therefore, subject to the reciprocal compensation provisions of section 251(b)(5).[3] The Court of Appeals for the District of Columbia Circuit held on appeal, however, that the *Declaratory Ruling* failed adequately to explain why our jurisdictional conclusion was relevant to the applicability of section 251(b)(5) and remanded the issue for further consideration.[4] As explained in more detail below, we modify the analysis that led to our determination that ISP-bound traffic falls outside the scope of section 251(b)(5) and conclude that Congress excluded from the "telecommunications" traffic subject to reciprocal compensation the traffic identified in section 251(g), including traffic destined for ISPs. Having found, although for different reasons than before, that the provisions of section 251(b)(5) do not extend to ISP-bound traffic, we reaffirm our previous conclusion that traffic delivered to an ISP is predominantly interstate access traffic subject to section 201 of the Act,

[1] Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic, Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68, 14 FCC Rcd 3689 (1999) (*Declaratory Ruling* or *Intercarrier Compensation NPRM*).

[2] *See* 47 U.S.C. § 201, Communications Act of 1934 (the Act), as amended by the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996 Act). Hereinafter, all citations to the Act and to the 1996 Act will be to the relevant section of the United States Code unless otherwise noted.

[3] 47 U.S.C. § 251(b)(5).

[4] *See Bell Atl. Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000) (*Bell Atlantic*).

and we establish an appropriate cost recovery mechanism for the exchange of such traffic.

2. We recognize that the existing intercarrier compensation mechanism for the delivery of this traffic, in which the originating carrier pays the carrier that serves the ISP, has created opportunities for regulatory arbitrage and distorted the economic incentives related to competitive entry into the local exchange and exchange access markets. As we discuss in the *Unified Intercarrier Compensation NPRM,*[5] released in tandem with this Order, such market distortions relate not only to ISP-bound traffic, but may result from any intercarrier compensation regime that allows a service provider to recover some of its costs from other carriers rather than from its end-users. Thus, the *NPRM* initiates a proceeding to consider, among other things, whether the Commission should replace existing intercarrier compensation schemes with some form of what has come to be known as "bill and keep."[6] The *NPRM* also considers modifications to existing payment regimes, in which the calling party's network pays the terminating network, that might limit the potential for market distortion. The regulatory arbitrage opportunities associated with intercarrier payments are particularly apparent with respect to ISP-bound traffic, however, because ISPs typically generate large volumes of traffic that is virtually all one-way -- that is, delivered to the ISP. Indeed, there is convincing evidence in the record that at least some carriers have targeted ISPs as customers merely to take advantage of these intercarrier payments. Accordingly, in this Order we also take interim steps to limit the regulatory arbitrage opportunity presented by ISP-bound traffic while we consider the broader issues of intercarrier compensation in the *NPRM* proceeding.

II. EXECUTIVE SUMMARY

3. As presaged above, we must wrestle with two difficult issues in this Order: first, whether intercarrier compensation for ISP-bound traffic is governed by section 251 or section 201; and, if the latter, what sort of compensation mechanism should apply. The first question is difficult because we do not believe it is resolved by the plain language of section 251(b)(5) but, instead, requires us to consider the relationship of that section to other provisions of the statute. Moreover, we recognize the legitimate questions raised by the court with respect to the rationales underlying our regulatory treatment of ISPs and ISP traffic. We seek to respond to those

[5] Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92, Notice of Proposed Rulemaking, FCC 01-132 (rel. April 27, 2001) ("*Unified Intercarrier Compensation NPRM*" or "*NPRM*").

[6] "Bill and keep" refers to an arrangement in which neither of two interconnecting networks charges the other for terminating traffic that originates on the other network. Instead, each network recovers from its own end-users the cost of both originating traffic that it delivers to the other network and terminating traffic that it receives from the other network. Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket Nos. 96-98, 95-185, First Report and Order, 11 FCC Rcd 15499, 16045 (1996) (*Local Competition Order*), *aff'd in part and vacated in part sub nom. Competitive Telecommunications Ass'n v. FCC*, 117 F.3d 1068 (8th Cir. 1997) (*CompTel*), *aff'd in part and vacated in part sub nom. Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997) (*Iowa Utils. Bd.*), *aff'd in part and rev'd in part sub nom., AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999); Order on Reconsideration, 11 FCC Rcd 13042 (1996); Second Order on Reconsideration, 11 FCC Rcd 19738 (1996); Third Order on Reconsideration and Further Notice of Proposed Rulemaking, 12 FCC Rcd 12460 (1997); *further recon. pending*. Bill and keep does not, however, preclude intercarrier charges for transport of traffic between carriers' networks. *Id.*

questions in this Order. Ultimately, however, we conclude that Congress, through section 251(g),[7] expressly limited the reach of section 251(b)(5) to exclude ISP-bound traffic. Accordingly, we affirm our conclusion in the *Declaratory Ruling* that ISP-bound traffic is not subject to the reciprocal compensation obligations of section 251(b)(5).

4. Because we determine that intercarrier compensation for ISP-bound traffic is within the jurisdiction of this Commission under section 201 of the Act, it is incumbent upon us to establish an appropriate cost recovery mechanism for delivery of this traffic. Based upon the record before us, it appears that the most efficient recovery mechanism for ISP-bound traffic may be bill and keep, whereby each carrier recovers costs from its own end-users. As we recognize in the *NPRM*, intercarrier compensation regimes that require carrier-to-carrier payments are likely to distort the development of competitive markets by divorcing cost recovery from the ultimate consumer of services. In a monopoly environment, permitting carriers to recover some of their costs from interconnecting carriers might serve certain public policy goals. In order to promote universal service, for example, this Commission historically has capped end-user common line charges and required local exchange carriers to recover any shortfall through per-minute charges assessed on interexchange carriers.[8] These sorts of implicit subsidies cannot be sustained, however, in the competitive markets for telecommunications services envisioned by the 1996 Act. In the *NPRM*, we suggest that, given the opportunity, carriers always will prefer to recover their costs from other carriers rather than their own end-users in order to gain competitive advantage. Thus carriers have every incentive to compete, not on basis of quality and efficiency, but on the basis of their ability to shift costs to other carriers, a troubling distortion that prevents market forces from distributing limited investment resources to their most efficient uses.

5. We believe that this situation is particularly acute in the case of carriers delivering traffic to ISPs because these customers generate extremely high traffic volumes that are entirely one-directional. Indeed, the weight of the evidence in the current record indicates that precisely the types of market distortions identified above are taking place with respect to this traffic. For example, comments in the record indicate that competitive local exchange carriers (CLECs), on average, terminate eighteen times more traffic than they originate, resulting in annual CLEC reciprocal compensation billings of approximately two billion dollars, ninety percent of which is for ISP-bound traffic.[9] Moreover, the traffic imbalances for some competitive carriers are in fact

[7] 47 U.S.C. § 251(g).

[8] Access Charge Reform, CC Docket No. 96-262, First Report and Order, 12 FCC Rcd 15982, 15998-99 (1997) (*Access Charge Reform Order*), *aff'd, Southwestern Bell Telephone Co. v. FCC,* 153 F.3d 523 (8th Cir. 1998).

[9] *See, e.g.,* Letter from Robert T. Blau, BellSouth, to Magalie Roman Salas, Secretary, FCC (November 6, 2000); *see also* Verizon Remand Comments at 2 (Verizon will be billed more than one billion dollars in 2000 for Internet-bound calls); Letter from Richard J. Metzger, Focal, to Deena Shetler, Legal Advisor to Commissioner Gloria Tristani, FCC (Jan. 11, 2001)(ILECs owed $1.98 billion in reciprocal compensation to CLECs in 2000). On June 23, 2000, the Commission released a Public Notice seeking comment on the issues raised by the court's remand. *See* Comment Sought on Remand of the Commission's Reciprocal Compensation Declaratory Ruling by the U.S. Court of Appeals for the D.C. Circuit, CC Docket Nos. 96-98, 99-68, Public Notice, 15 FCC Rcd 11311 (2000) (*Public Notice*). Comments and reply comments filed in response to the *Public Notice* are identified herein as "Remand Comments" and "Remand Reply Comments," respectively. Comments and replies filed in response the 1999 *Intercarrier Compensation NPRM* are identified as "Comments" and "Reply Comments," respectively.

much greater, with several carriers terminating more than forty times more traffic than they originate.[10] There is nothing inherently wrong with carriers having substantial traffic imbalances arising from a business decision to target specific types of customers. In this case, however, we believe that such decisions are driven by regulatory opportunities that disconnect costs from end-user market decisions. Thus, under the current carrier-to-carrier recovery mechanism, it is conceivable that a carrier could serve an ISP free of charge and recover all of its costs from originating carriers. This result distorts competition by subsidizing one type of service at the expense of others.

6. Although we believe this arbitrage opportunity is particularly manifest with respect to ISP-bound traffic, we suggest in the *NPRM* that any compensation regime based on carrier-to-carrier payments may create similar market distortions. Accordingly, we initiate an inquiry as to whether bill and keep is a more economically efficient compensation scheme than the existing carrier-to-carrier payment mechanisms. Alternatively, the record developed in that proceeding may suggest modifications to carrier-to-carrier cost recovery mechanisms that address the competitive concerns identified above. Based upon the current record, however, bill and keep appears the preferable cost recovery mechanism for ISP-bound traffic because it eliminates a substantial opportunity for regulatory arbitrage. We do not fully adopt a bill and keep regime in this Order, however, because there are specific questions regarding bill and keep that require further inquiry, and we believe that a more complete record on these issues is desirable before requiring carriers to recover most of their costs from end-users. Because these questions are equally relevant to our evaluation of a bill and keep approach for other types of traffic, we will consider them in the context of the *NPRM*. Moreover, we believe that there are significant advantages to a global evaluation of the intercarrier compensation mechanisms applicable to different types of traffic to ensure a more systematic, symmetrical treatment of these issues.

7. Because the record indicates a need for immediate action with respect to ISP-bound traffic, however, in this Order we will implement an interim recovery scheme that: (i) moves aggressively to eliminate arbitrage opportunities presented by the existing recovery mechanism for ISP-bound by lowering payments and capping growth; and (ii) initiates a 36-month transition towards a complete bill and keep recovery mechanism while retaining the ability to adopt an alternative mechanism based upon a more extensive evaluation in the *NPRM* proceeding. Specifically, we adopt a gradually declining cap on the amount that carriers may recover from other carriers for delivering ISP-bound traffic. We also cap the amount of traffic for which any such compensation is owed, in order to eliminate incentives to pursue new arbitrage opportunities. In sum, our goal in this Order is decreased reliance by carriers upon carrier-to-carrier payments and an increased reliance upon recovery of costs from end-users, consistent with the tentative conclusion in the *NPRM* that bill and keep is the appropriate intercarrier compensation mechanism for ISP-bound traffic. In this regard, we emphasize that the rate caps we impose are not intended to reflect the costs incurred by each carrier that delivers ISP traffic. Some carriers' costs may be higher; some are probably lower. Rather, we conclude, based upon all of the evidence in this record, that these rates are appropriate limits on the amounts recovered from other carriers and provide a reasonable transition from rates that have (at least until recently) typically been much higher. Carriers whose costs exceed these rates are (and

[10] *See, e.g.*, Verizon Remand Comments at 11, 21.

will continue to be) able to collect additional amounts from their ISP customers. As we note above, and explain in more detail below, we believe that such end-user recovery likely is the most efficient mechanism.

8. The basic structure of this transition is as follows:

* Beginning on the effective date of this Order, and continuing for six months, intercarrier compensation for ISP-bound traffic will be capped at a rate of $.0015/minute-of-use (mou). Starting in the seventh month, and continuing for eighteen months, the rate will be capped at $.0010/mou. Starting in the twenty-fifth month, and continuing through the thirty-sixth month or until further Commission action (whichever is later), the rate will be capped at $.0007/mou. Any additional costs incurred must be recovered from end-users. These rates reflect the downward trend in intercarrier compensation rates contained in recently negotiated interconnection agreements, suggesting that they are sufficient to provide a reasonable transition from dependence on intercarrier payments while ensuring cost recovery.

* We also impose a cap on total ISP-bound minutes for which a local exchange carrier (LEC) may receive this compensation. For the year 2001, a LEC may receive compensation, pursuant to a particular interconnection agreement, for ISP-bound minutes up to a ceiling equal to, on an annualized basis, the number of ISP-bound minutes for which that LEC was entitled to compensation under that agreement during the first quarter of 2001, plus a ten percent growth factor. For 2002, a LEC may receive compensation for ISP-bound minutes up to a ceiling equal to the minutes for which it was entitled to compensation in 2001, plus another ten percent growth factor. In 2003, a LEC may receive compensation for ISP-bound minutes up to a ceiling equal to the 2002 ceiling. These caps are consistent with projections of the growth of dial-up Internet access for the first two years of the transition and are necessary to ensure that such growth does not undermine our goal of limiting intercarrier compensation and beginning a transition toward bill and keep. Growth above these caps should be based on a carrier's ability to provide efficient service, not on any incentive to collect intercarrier payments.

* Because the transitional rates are *caps* on intercarrier compensation, they have no effect to the extent that states have ordered LECs to exchange ISP-bound traffic either at rates below the caps or on a bill and keep basis (or otherwise have not required payment of compensation for this traffic). The rate caps are designed to provide a transition toward bill and keep, and no transition is necessary for carriers already exchanging traffic at rates below the caps.

* In order to limit disputes and costly measures to identify ISP-bound traffic, we adopt a rebuttable presumption that traffic exchanged between LECs that exceeds a 3:1 ratio of terminating to originating traffic is ISP-bound traffic subject to the compensation mechanism set forth in this Order. This ratio is consistent with those adopted by state commissions to identify ISP or other convergent traffic that is subject to lower intercarrier compensation rates. Carriers that seek to rebut this presumption, by showing that traffic above the ratio is not ISP-bound traffic or, conversely, that traffic below the ratio is ISP-

bound traffic, may seek appropriate relief from their state commissions pursuant to section 252 of the Act.

* Finally, the rate caps for ISP-bound traffic (or such lower rates as have been imposed by states commissions for the exchange of ISP-bound traffic) apply only if an incumbent LEC offers to exchange all traffic subject to section 251(b)(5) at the same rate. An incumbent LEC that does not offer to exchange section 251(b)(5) traffic at these rates must exchange ISP-bound traffic at the state-approved or state-negotiated reciprocal compensation rates reflected in their contracts. The record fails to demonstrate that there are inherent differences between the costs of delivering a voice call to a local end-user and a data call to an ISP, thus the "mirroring" rule we adopt here requires that incumbent LECs pay the same rates for ISP-bound traffic that they receive for section 251(b)(5) traffic.

III. BACKGROUND

9. In the *Declaratory Ruling* released on February 26, 1999, we addressed the regulatory treatment of ISP-bound traffic. In that order, we reached several conclusions regarding the jurisdictional nature of this traffic, and we proposed several approaches to intercarrier compensation for ISP-bound traffic in an accompanying *Intercarrier Compensation NPRM*. The order, however, was vacated and remanded on appeal.[11] This Order, therefore, again focuses on the regulatory treatment of ISP-bound traffic and the appropriate intercarrier compensation regime for carriers that collaborate to deliver traffic to ISPs.

10. As we noted in the *Declaratory Ruling*, an ISP's end-user customers typically access the Internet through an ISP server located in the same local calling area.[12] Customers generally pay their LEC a flat monthly fee for use of the local exchange network, including connections to their local ISP.[13] They also generally pay their ISP a flat monthly fee for access to the Internet.[14] ISPs then combine "computer processing, information storage, protocol conversion, and routing with transmission to enable users to access Internet content and services."[15]

11. ISPs, one class of enhanced service providers (ESPs),[16] also may utilize LEC services to provide their customers with access to the Internet. In the *MTS/WATS Market*

[11] *See Bell Atlantic*, 206 F.3d 1.

[12] *Declaratory Ruling*, 14 FCC Rcd at 3691.

[13] *Declaratory Ruling*, 14 FCC Rcd at 3691.

[14] *Declaratory Ruling*, 14 FCC Rcd at 3691.

[15] *Declaratory Ruling*, 14 FCC Rcd at 3691 (citing Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11531 (1998) (*Universal Service Report to Congress*)).

[16] The Commission defines "enhanced services" as "services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information." 47 C.F.R. (continued....)

Structure Order, the Commission acknowledged that ESPs were among a variety of users of LEC interstate access services.[17] Since 1983, however, the Commission has exempted ESPs from the payment of certain interstate access charges.[18] Consequently ESPs, including ISPs, are treated as end-users for the purpose of applying access charges and are, therefore, entitled to pay local business rates for their connections to LEC central offices and the public switched telephone network (PSTN).[19] Thus, despite the Commission's understanding that ISPs use *interstate* access services, pursuant to the ESP exemption, the Commission has permitted ISPs to take service under *local* tariffs.

12. The 1996 Act set standards for the introduction of competition into the market for local telephone service, including requirements for interconnection of competing telecommunications carriers.[20] As a result of interconnection and growing local competition, more than one LEC may be involved in the delivery of telecommunications within a local service area. Section 251(b)(5) of the Act addresses the need for LECs to agree to terms for the mutual exchange of traffic over their interconnecting networks. It specifically provides that LECs have the duty to "establish reciprocal compensation arrangements for the transport and termination of telecommunications."[21] The Commission determined, in the *Local Competition Order,* that section 251(b)(5) reciprocal compensation obligations "apply only to traffic that originates and terminates within a local area," as defined by state commissions.[22]

(Continued from previous page)
§ 64.702(a). The 1996 Act describes these services as "information services." *See* 47 U.S.C. § 153(20) ("information service" refers to the "offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications."). *See also Universal Service Report to Congress*, 13 FCC Rcd at 11516 (the "1996 Act's definitions of telecommunications service and information service essentially correspond to the pre-existing categories of basic and enhanced services").

[17] MTS and WATS Market Structure, CC Docket No. 78-72, Memorandum Opinion and Order, 97 FCC 2d 682, 711 (1983)(*MTS/WATS Market Structure Order)*(ESPs are "[a]mong the variety of users of access service" and "obtain[] local exchange services or facilities which are used, in part or in whole, for the purpose of completing interstate calls which transit [their] location and, commonly, another location.").

[18] This policy is known as the "ESP exemption." *See MTS/WATS Market Structure Order*, 97 FCC 2d at 715 (ESPs have been paying local business service rates for their interstate access and would experience rate shock that could affect their viability if full access charges were instead applied); *see also* Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, CC Docket 87-215, Order, 3 FCC Rcd 2631, 2633 (1988) (*ESP Exemption Order*) ("the imposition of access charges at this time is not appropriate and could cause such disruption in this industry segment that provision of enhanced services to the public might be impaired"); *Access Charge Reform Order*, 12 FCC Rcd at 16133 ("[m]aintaining the existing pricing structure ... avoids disrupting the still-evolving information services industry").

[19] *ESP Exemption Order*, 3 FCC Rcd at 2635 n.8, 2637 n.53. *See also Access Charge Reform Order*, 12 FCC Rcd at 16133-35.

[20] 47 U.S.C. §§ 251-252.

[21] 47 U.S.C. § 251(b)(5).

[22] *See Local Competition Order*, 11 FCC Rcd at 16013 ("With the exception of traffic to or from a CMRS network, state commissions have the authority to determine what geographic areas should be considered 'local areas' for the purpose of applying reciprocal compensation obligations under section 251(b)(5), consistent with the state commissions' historical practice of defining local service areas for wireline LECs."); *see also* 47 C.F.R.
(continued....)

13. As a result of this determination, the question arose whether reciprocal compensation obligations apply to the delivery of calls from one LEC's end-user customer to an ISP in the same local calling area that is served by a competing LEC.[23] The Commission determined at that time that resolution of this question turned on whether ISP-bound traffic "originates and terminates within a local area," as set forth in our rule.[24] Many competitive LECs argued that ISP-bound traffic is local traffic that terminates at the ISP's local server, where a second, packet-switched "call" then begins.[25] Thus, they argued, the reciprocal compensation obligations of section 251(b)(5) apply to this traffic. Incumbent LECs, on the other hand, argued that no reciprocal compensation is due because ISP-bound traffic is interstate telecommunications traffic that continues through the ISP server and terminates at the remote Internet sites accessed by ISP customers.[26]

14. The Commission concluded in the *Declaratory Ruling* that the jurisdictional nature of ISP-bound traffic should be determined, consistent with Commission precedent, by the end points of the communication.[27] Applying this "end-to-end" analysis, the Commission determined that Internet communications originate with the ISP's end-user customer and continue beyond the local ISP server to websites or other servers and routers that are often located outside of the state.[28] The Commission found, therefore, that ISP-bound traffic is not local because it does not "originate[] and terminate[] within a local area."[29] Instead, it is

(Continued from previous page)
§ 51.701(b)(1-2). For CMRS traffic, the Commission determined that reciprocal compensation applies to traffic that originates and terminates within the same Major Trading Area (MTA). *See* 47 C.F.R. § 51.701(b)(2).

[23] *See, e.g.,* Petitions for Reconsideration and Clarification of Action in Rulemaking Proceedings, 61 Fed. Reg. 53922 (1996); Petition for Partial Reconsideration and Clarification of MFS Communications Co., Inc. at 28; Letter from Richard J. Metzger, ALTS, to Regina M. Keeney, Chief, Common Carrier Bureau, FCC (June 20, 1997); Pleading Cycle Established for Comments on Request by ALTS for Clarification of the Commission's Rules Regarding Reciprocal Compensation for Information Service Provider Traffic, CCB/CPD 97-30, DA 97-1399 (rel. July 2, 1997); Letter from Edward D. Young and Thomas J. Tauke, Bell Atlantic, to William E. Kennard, Chairman, FCC (July 1, 1998). The Commission later directed parties wishing to make *ex parte* presentations regarding the applicability of reciprocal compensation to ISP-bound traffic to make such filings in CC Docket No. 96-98, the local competition proceeding. *See Ex Parte* Procedures Regarding Requests for Clarification of the Commission's Rules Regarding Reciprocal Compensation for Information Service Provider Traffic, CC Docket No. 96-98, Public Notice, 13 FCC Rcd. 15568 (1998).

[24] *Declaratory Ruling*, 14 FCC Rcd at 3693-94.

[25] *Declaratory Ruling,* 14 FCC Rcd at 3694.

[26] *Declaratory Ruling,* 14 FCC Rcd at 3695.

[27] *Declaratory Ruling,* 14 FCC Rcd at 3695-3701; *see also* Petition for Emergency Relief and Declaratory Ruling Filed by BellSouth Corporation, Memorandum Opinion and Order, 7 FCC Rcd 1619 (1992) (*BellSouth MemoryCall*), *aff'd, Georgia Pub. Serv. Comm'n v. FCC*, 5 F.3d 1499 (11th Cir. 1993)(table); Teleconnect Co. v. Bell Telephone Co. of Penn., E-88-83, 10 FCC Rcd 1626 (1995) (*Teleconnect*), *aff'd sub nom. Southwestern Bell Tel. Co. v. FCC*, 116 F.3d 593 (D.C. Cir. 1997).

[28] *Declaratory Ruling,* 14 FCC Rcd at 3695-97.

[29] *Declaratory Ruling*, 14 FCC Rcd at 3697.

jurisdictionally mixed and largely interstate, and, for that reason, the Commission found that the reciprocal compensation obligations of section 251(b)(5) do not apply to this traffic.[30]

15. Despite finding that ISP-bound traffic is largely interstate, the Commission concluded that it had not yet established a federal rule to govern intercarrier compensation for this traffic.[31] The Commission found that, in the absence of conflicting federal law, parties could voluntarily include ISP-bound traffic in their interconnection agreements under sections 251 and 252 of the Act.[32] It also found that, even though section 251(b)(5) does not *require* reciprocal compensation for ISP-bound traffic, nothing in the statute or our rules prohibits state commissions from determining in their arbitrations that reciprocal compensation for this traffic is appropriate, so long as there is no conflict with governing federal law.[33] Pending adoption of a federal rule, therefore, state commissions exercising their authority under section 252 to arbitrate, interpret, and enforce interconnection agreements would determine whether and how interconnecting carriers should be compensated for carrying ISP-bound traffic.[34] In the *Intercarrier Compensation NPRM* accompanying the *Declaratory Ruling*, the Commission requested comment on the most appropriate intercarrier compensation mechanism for ISP-bound traffic.[35]

16. On March 24, 2000, prior to release of a decision addressing these issues, the court of appeals vacated certain provisions of the *Declaratory Ruling* and remanded the matter to the Commission.[36] The court observed that, although "[t]here is no dispute that the Commission has historically been justified in relying on this [end-to-end] method when determining whether a particular communication is jurisdictionally interstate,"[37] the Commission had not adequately explained why the jurisdictional analysis was dispositive of, or indeed relevant to, the question whether a call to an ISP is subject to the reciprocal compensation requirements of section 251(b)(5).[38] The court noted that the Commission had not applied its definition of "termination" to its analysis of the scope of section 251(b)(5),[39] and the court distinguished cases upon which

[30] *Declaratory Ruling,* 14 FCC Rcd at 3690, 3695-3703.

[31] *Declaratory Ruling,* 14 FCC Rcd at 3703.

[32] *Declaratory Ruling,* 14 FCC Rcd at 3703.

[33] *Declaratory Ruling,* 14 FCC Rcd at 3706.

[34] *Declaratory Ruling,* 14 FCC Rcd at 3703-06. The Commission did recognize, however, that its conclusion that ISP-bound traffic is largely interstate might cause some state commissions to re-examine their conclusions that reciprocal compensation is due to the extent that those conclusions were based on a finding that this traffic terminates at the ISP's server. *Id.* at 3706.

[35] *Declaratory Ruling,* 14 FCC Rcd at 3707-09.

[36] *See Bell Atlantic*, 206 F.3d 1.

[37] *Bell Atlantic*, 206 F.3d at 5.

[38] *Bell Atlantic*, 206 F.3d at 5*; see also id.* at 8 (the Commission had not "supplied a real explanation for its decision to treat end-to-end analysis as controlling" with respect to the application of section 251(b)(5)).

[39] *See Bell Atlantic*, 206 F.3d at 6-7.

the Commission relied in its end-to-end analysis because they involve continuous communications switched by interexchange carriers (IXCs), as opposed to ISPs, the latter of which are not telecommunications providers.[40] As an "independent reason" to vacate, the court also held that the Commission had failed to address how its conclusions "fit . . . within the governing statute."[41] In particular, the court found that the Commission had failed to explain why ISP-bound traffic was not "telephone exchange service," as defined in the Act.[42]

17. In a public notice released June 23, 2000, the Commission sought comment on the issues raised by the court's remand.[43] The *Public Notice* specifically requested that parties comment on the jurisdictional nature of ISP-bound traffic, the scope of the reciprocal compensation requirement of section 251(b)(5), and the relevance of the concepts of "termination," "telephone exchange service," "exchange access service," and "information access."[44] It invited parties to update the record by responding to any *ex parte* presentations filed after the close of the reply period on April 27, 1999. It also sought comment on any new or innovative intercarrier compensation arrangements for ISP-bound traffic that parties may have considered or entered into during the pendency of the proceeding.

IV. DISCUSSION

A. Background

18. The nature and character of communications change over time. Over the last decade communications services have been radically altered by the advent of the Internet and the nature of Internet communications. Indeed, the Internet has given rise to new forms of communications such as e-mail, instant messaging, and other forms of digital, IP-based services. Many of these new services and formats have been layered over and integrated with the existing public telephone systems. Most notably, Internet service providers have come into existence in order to facilitate mass market access to the Internet. A consumer with access to a standard phone line is able to communicate with the Internet, because an ISP converts the analog signal to digital and converts the communication to the IP protocol. This allows the user to access the global Internet infrastructure and communicate with users and websites throughout the world. In a narrowband context, the ISP facilitates access to this global network.

19. The Commission has struggled with how to treat Internet traffic for regulatory purposes, given the bevy of its rules premised on the architecture and characteristics of the mature public switched telephone network. For example, Internet consumers may stay on the network much longer than the design expectations of a network engineered primarily for voice communications. Additionally, the "bursty" nature of packet-switched communications skews

[40] *See Bell Atlantic*, 206 F.3d at 6-7.

[41] *Bell Atlantic*, 206 F.3d at 8.

[42] *Bell Atlantic*, 206 F.3d at 8-9; 47 U.S.C. § 153(47) (defining "telephone exchange service").

[43] *Public Notice*, 15 FCC Rcd 11311.

[44] *Id.; see also* 47 U.S.C. § 251(g); 47 U.S.C. § 153(20).

the traditional assumptions of per minute pricing to which we are all accustomed. The regulatory challenges have become more acute as Internet usage has exploded.[45]

20. The issue of intercarrier compensation for Internet-bound traffic with which we are presently wrestling is a manifestation of this growing challenge. Traditionally, telephone carriers would interconnect with each other to deliver calls to each other's customers. It was generally assumed that traffic back and forth on these interconnected networks would be relatively balanced. Consequently, to compensate interconnecting carriers, mechanisms like reciprocal compensation were employed, whereby the carrier whose customer initiated the call would pay the other carrier the costs of using its network.

21. Internet usage has distorted the traditional assumptions because traffic to an ISP flows exclusively in one direction, creating an opportunity for regulatory arbitrage and leading to uneconomical results. Because traffic to ISPs flows one way, so does money in a reciprocal compensation regime. It was not long before some LECs saw the opportunity to sign up ISPs as customers and collect, rather than pay, compensation because ISP modems do not generally call anyone in the exchange. In some instances, this led to classic regulatory arbitrage that had two troubling effects: (1) it created incentives for inefficient entry of LECs intent on serving ISPs exclusively and not offering viable local telephone competition, as Congress had intended to facilitate with the 1996 Act; (2) the large one-way flows of cash made it possible for LECs serving ISPs to afford to pay their own customers to use their services, potentially driving ISP rates to consumers to uneconomical levels. These effects prompted the Commission to consider the nature of ISP-bound traffic and to examine whether there was any flexibility under the statute to modify and address the pricing mechanisms for this traffic, given that there is a federal statutory provision authorizing reciprocal compensation.[46] In the *Declaratory Ruling,* the Commission concluded that Internet-bound traffic was jurisdictionally interstate and, thus, not subject to section 251(b)(5).

22. In *Bell Atlantic*, the court of appeals vacated the *Declaratory Ruling* and remanded the case to the Commission to determine whether ISP-bound traffic is subject to statutory reciprocal compensation requirements. The court held that the Commission failed to explain adequately why LECs did not have a duty to pay reciprocal compensation under section 251(b)(5) of the Act and remanded the case to the Commission.

B. Statutory Analysis

23. In this section, we reexamine our findings in the *Declaratory Ruling* and conclude that ISP-bound traffic is not subject to the reciprocal compensation requirement in section 251(b) because of the carve-out provision in section 251(g), which excludes several enumerated categories of traffic from the universe of "telecommunications" referred to in section 251(b)(5). We explain our rationale and the interrelationship between these two statutory provisions in more detail below. We further conclude that section 251(i) affirms the Commission's role in

[45] *See* Digital Economy 2000, U.S. Department of Commerce (June 2000) ("Three hundred million people now use the Internet, compared to three million in 1994.")

[46] 47 U.S.C. § 251(b)(5).

continuing to develop appropriate pricing and compensation mechanisms for traffic -- such as Internet-bound traffic -- that travels over convergent, mixed, and new types of network architectures.

1. Introduction

24. In the *Local Competition Order*, the Commission determined that the reciprocal compensation provisions of section 251(b)(5) applied only to what it termed "local" traffic rather than to the transport and termination of interexchange traffic.[47] In the subsequent *Declaratory Ruling,* the Commission focused its discussion on whether ISP-bound traffic terminated within a local calling area such as to be properly considered "local" traffic. To resolve that issue, the Commission focused predominantly on an end-to-end jurisdictional analysis.

25. On review, the court accepted (without necessarily endorsing) the Commission's view that traffic was either "local" or "long distance" but faulted the Commission for failing to explain adequately why ISP-bound traffic was more properly categorized as long distance, rather than local. The Commission had attempted to do so by employing an end-to-end jurisdictional analysis of ISP traffic, rather than by evaluating the traffic under the statutory definitions of "telephone exchange service" and "exchange access." After acknowledging that the Commission "has historically been justified in relying on" end-to-end analysis for determining whether a communication is jurisdictionally interstate, the court stated: "But [the Commission] has yet to provide an explanation of why this inquiry is relevant to discerning whether a call to an ISP should fit within the local call model of two collaborating LECs or the long-distance model of a long-distance carrier collaborating with two LECs."[48] After reviewing the manner in which the Commission analyzed the parameters of section 251(b)(5) traffic in the *Declaratory Ruling*, the court found that the central issue was "whether a call to an ISP is local or long distance."[49] The court noted further that "[n]either category fits clearly."[50]

26. Upon further review, we find that the Commission erred in focusing on the nature of the service (*i.e.*, local or long distance) and in stating that there were only two forms of telecommunications services -- telephone exchange service and exchange access -- for purposes of interpreting the relevant scope of section 251(b)(5).[51] Those services are the only two expressly defined by the statute. The court found fault in the Commission's failure to analyze communications delivered by a LEC to an ISP in terms of these definitions.[52] Moreover, it cited

[47] *Local Competition Order*, 11 FCC Rcd at 16012.

[48] *Bell Atlantic*, 206 F.3d at 5.

[49] *Id.*

[50] *Id.*

[51] *Id.* at 8.

[52] *Id.* at 8-9.

the Commission's own confusing treatment of ISP-bound traffic as local under the ESP exemption and interstate for jurisdictional purposes.[53]

27. Part of the ambiguity identified by the court appears to arise from the ESP exemption, a long-standing Commission policy that affords one class of entities using interstate access -- information service providers -- *the option* of purchasing interstate access services on a flat-rated basis from intrastate local business tariffs, rather than from interstate access tariffs used by IXCs. Typically, information service providers have used this exemption to their advantage by choosing to pay local business rates, rather than the tariffed interstate access charges that other users of interstate access are required to pay.[54] In fending off challenges from those who argued that information service providers must be subject to access charges because they provide interexchange service, the Commission has often tried to walk the subtle line of arguing that the service provided by the LEC to the information service provider is an access service, but can justifiably be treated as akin to local telephone exchange service for purposes of the rates the LEC may charge. This balancing act reflected the historical view that there were only two kinds of intercarrier compensation: one for local telephone exchange service, and a second (access charges) for long distance services. Attempting to describe a hybrid service (the nature being an access service, but subject to a compensation mechanism historically limited to local service) was always a bit of mental gymnastics.

28. The court opinion underscores a tension between the jurisdictional nature of ISP-bound traffic, which the Commission has long held to be interstate, and the alternative compensation mechanism that the ESP exemption has permitted for this traffic. The court seems to recognize that, if an end-to-end analysis were properly applied to this traffic, this traffic would be predominantly interstate, and consequently "long distance." Yet it also questions whether this traffic should be considered "local" for purposes of section 251(b)(5) in light of the ESP exemption, by which the Commission has allowed information service providers at their option to be treated for compensation purposes (but *not* for jurisdictional purposes) as end-users.

29. The court also expresses consternation over what it perceives as an inconsistency in the Commission's reasoning. On the one hand, the court observes, the Commission has argued that calls to ISPs are predominantly interstate for jurisdictional purposes because they terminate at the ultimate destination of the traffic in a distant website or e-mail server (*i.e.,* the "one call theory"). On the other hand, the court notes, the Commission has defended the ESP exemption by analogizing an ISP to a high-volume business user, such as a pizza parlor or travel agent, that has different usage patterns and longer call holding times than the average customer.[55] The court questioned whether any such differences should not, as some commenters argued, lend support to treating this traffic as "local" for purposes of section 251(b)(5). As discussed in

[53] *Id.*

[54] Significantly, however, the compensation mechanism effected for this predominantly interstate access traffic is the result of a federal mandate, which requires states to treat ISP-bound traffic for compensation purposes in a manner similar to local traffic if ISPs so request. *See infra* note 105.

[55] *Access Charge Reform Order*, 12 FCC Rcd at 16134 ("Internet access does generate different usage patterns and longer call holding times than average voice usage.").

further detail below, while we continue to believe that retaining the ESP exemption is important in order to facilitate growth of Internet services, we conclude in section IV.C.1, *infra*, that reciprocal compensation for ISP-bound traffic distorts the development of competitive markets.

30. We respond to the court's concerns, and seek to resolve these tensions, by reexamining the grounds for our conclusion that ISP-bound traffic falls outside the scope of section 251(b)(5). A more comprehensive review of the statute reveals that Congress intended to exempt certain enumerated categories of service from section 251(b)(5) when the service was provided to interexchange carriers or information service providers. The exemption focuses not only on the nature of the service, but on to whom the service is provided. For services that qualify, compensation is based on rules, regulations, and policies that preceded the 1996 Act and not on section 251(b)(5), which was minted by the Act. As we explain more fully below, the service provided by LECs to deliver traffic to an ISP constitutes, at a minimum, "information access" under section 251(g) and, thus, compensation for this service is not governed by section 251(b)(5), but instead by the Commission's policies for this traffic and the rules adopted under its section 201 authority.[56]

2. Section 251(g) Excludes Certain Categories of Traffic from the Scope of "Telecommunications" Subject to Section 251(b)(5)

a. Background

31. Section 251(b)(5) imposes a duty on all local exchange carriers to "establish reciprocal compensation arrangements for the transport and termination of telecommunications."[57] On its face, local exchange carriers are required to establish reciprocal compensation arrangements for the transport and termination of *all* "telecommunications" they exchange with another telecommunications carrier, without exception. The Act separately defines "telecommunications" as the "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[58]

32. Unless subject to further limitation, section 251(b)(5) would require reciprocal compensation for transport and termination of *all* telecommunications traffic, -- *i.e.*, whenever a

[56] Some critics of the Commission's order may contend that we rely here on the same reasoning that the court rejected in *Bell Atlantic*. We acknowledge that there is a superficial resemblance between the Commission's previous order and this one: Here, as before, the Commission finds that ISP-bound traffic falls outside the scope of section 251(b)(5)'s reciprocal compensation requirement and within the Commission's access charge jurisdiction under section 201(b). The rationale underlying the two orders, however, differs substantially. Here the Commission bases its conclusion that ISP-bound traffic falls outside section 251(b)(5) on its construction of sections 251(g) and (i) -- not, as in the previous order, on the theory that section 251(b)(5) applies only to "local" telecommunications traffic and that ISP-bound traffic is interstate. Furthermore, to the extent the Commission continues to characterize ISP-bound traffic as interstate for purposes of its section 201 authority, it has sought in this Order to address in detail the *Bell Atlantic* court's concerns.

[57] 47 U.S.C. § 251(b)(5).

[58] 47 U.S.C. § 153(43).

local exchange carrier exchanges telecommunications traffic with another carrier. Farther down in section 251, however, Congress explicitly exempts certain telecommunications services from the reciprocal compensation obligations. Section 251(g) provides:

> On or after the date of enactment of the Telecommunications Act of 1996, each local exchange carrier . . . shall provide exchange access, *information access*, and exchange services for such access to interexchange carriers and information service providers in accordance with the same equal access and nondiscriminatory interconnection restrictions and obligations (including receipt of compensation) that apply to such carrier on the date immediately preceding the date of enactment of the Telecommunications Act of 1996 under any court order, consent decree, or regulation, order, or policy of the [Federal Communications] Commission, until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission after such date of enactment.[59]

33. The meaning of section 251(g) is admittedly not transparent. Indeed, section 251(g) clouds any plain reading of section 251(b)(5). Nevertheless, the Commission believes the two provisions can be read together consistently and in a manner faithful to Congress's intent.[60]

b. Discussion

34. We conclude that a reasonable reading of the statute is that Congress intended to exclude the traffic listed in subsection (g) from the reciprocal compensation requirements of subsection (b)(5).[61] Thus, the statute does not mandate reciprocal compensation for "exchange access, information access, and exchange services for such access" provided to IXCs and information service providers. Because we interpret subsection (g) as a carve-out provision, the focus of our inquiry is on the universe of traffic that falls within subsection (g) and *not* the universe of traffic that falls within subsection (b)(5). This analysis differs from our analysis in the *Local Competition Order*, in which we attempted to describe the universe of traffic that falls within subsection (b)(5) as all "local" traffic. We also refrain from generically describing traffic as "local" traffic because the term "local," not being a statutorily defined category, is particularly susceptible to varying meanings and, significantly, is not a term used in section 251(b)(5) or section 251(g).

---

[59] 47 U.S.C. § 251(g) (emphasis added).

[60] *See AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 397 (1999)("It would be a gross understatement to say that the Telecommunications Act of 1996 is not a model of clarity. It is in many important respects a model of ambiguity or indeed even self-contradiction. . . . But Congress is well aware that the ambiguities it chooses to produce in a statute will be resolved by the implementing agency. . . . We can only enforce the clear limits that the 1996 Act contains.").

[61] In the *Declaratory Ruling*, the Commission did not explain the relevance of section 251(g) nor discuss the categories of traffic exempted from reciprocal compensation by that provision, at least until the Commission should act otherwise. Reflecting this omission in the underlying order, the *Bell Atlantic* court does not mention the relationship of sections 251(g) and 251(b)(5), nor the enumerated categories of services referenced by subsection (g). Rather, the court focuses its review on the possible categorization of ISP-bound traffic as "local," terminology we now find inappropriate in light of the more express statutory language set forth in section 251(g).

35. We agree with the court that the issue before us requires more than just a jurisdictional analysis. Indeed, as the court recognized, the 1996 Act changed the historic relationship between the states and the federal government with respect to pricing matters.[62] Instead, we focus upon the statutory language of section 251(b) as limited by 251(g). We believe this approach is not only consistent with the statute, but that it resolves the concerns expressed by the court in reviewing our previous analysis. Central to our modified analysis is the recognition that 251(g) is properly viewed as a limitation on the scope of section 251(b)(5) and that ISP-bound traffic falls under one or more of the categories set forth in section 251(g). For that reason, we conclude that ISP-bound traffic is not subject to the reciprocal compensation provisions of section 251(b)(5). We reach that conclusion regardless of the compensation mechanism that may be in place for such traffic under the ESP exemption.

36. We believe that the specific provisions of section 251(g) demonstrate that Congress did not intend to interfere with the Commission's pre-Act authority over "nondiscriminatory interconnection . . . obligations (including receipt of compensation)"[63] with respect to "exchange access, information access, and exchange services for such access" provided to IXCs or information service providers. We conclude that Congress specifically exempted the services enumerated under section 251(g) from the newly imposed reciprocal compensation requirement in order to ensure that section 251(b)(5) is not interpreted to override either existing or future regulations prescribed by the Commission.[64] We also find that ISP-bound traffic falls within at least one of the three enumerated categories in subsection (g).

---

[62] *Bell Atlantic*, 206 F.3d at 6; *see also AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. at 377-87.

[63] Authority over rates (or "receipt of compensation") is a core feature of "equal access and nondiscriminatory interconnection" obligations. Indeed, one of the Commission's primary goals when designing an access charge regime was to ensure that access users were treated in a nondiscriminatory manner when interconnecting with LEC networks in order to transport interstate communications. *See National Ass'n of Regulatory Util. Comm'nrs v. FCC*, 737 F.2d 1095, 1101-1108, 1130-34 (D.C. Cir. 1984), *cert. denied,* 469 U.S. 1227 (1985)(*NARUC v. FCC*).

[64] This view is consistent with previous Commission orders construing section 251(g). The Commission recognized in the *Advanced Services Remand Order*, for example, that section 251(g) preserves the requirements of the AT&T Consent Decree (*see United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982)(hereinafter AT&T Consent Decree or Modification of Final Judgment ("MFJ"), but that order does not conclude that section 251(g) preserves *only* MFJ requirements. Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147 et al., Order on Remand, 15 FCC Rcd 385, 407 (1999)(*Advanced Services Remand Order*). Indeed, the ultimate issue addressed in that part of the order was *not* the status or scope of section 251(g) as a carve-out provision at all, but rather the question -- irrelevant for our purposes here -- whether "information access" is a category of service that is mutually exclusive of "exchange access," as the latter term is defined in section 3(16) of the Act. *See id.* at 407-08; *see also infra* para. 42 & note 76. By contrast, when the Commission first addressed the scope of the reciprocal compensation obligations of section 251(b)(5) in the *Local Competition Order*, it expressly cited section 251(g) in support of the decision to exempt from those obligations the tariffed interstate access services provided by all LECs (not just Bell companies subject to the MFJ) to interexchange carriers. 11 FCC Rcd at 16013. The *Bell Atlantic* court did not take issue with the Commission's earlier conclusion that section 251(b)(5) is so limited. 206 F.3d at 4. The interpretation we adopt here -- that section 251(g) exempts from section 251(b)(5) information access services provided to information service providers, as well as access provided to IXCs – thus is fully consistent with the Commission's initial construction of section 251(g), in the *Local Competition Order,* as extending beyond the MFJ to *our own* access rules and policies.

37. This limitation in section 251(g) makes sense when viewed in the overall context of the statute. All of the services specified in section 251(g) have one thing in common: they are all access services or services associated with access.[65] Before Congress enacted the 1996 Act, LECs provided access services to IXCs and to information service providers in order to connect calls that travel to points – both interstate and intrastate – beyond the local exchange. In turn, both the Commission and the states had in place access regimes applicable to this traffic, which they have continued to modify over time. It makes sense that Congress did not intend to disrupt these pre-existing relationships.[66] Accordingly, Congress excluded all such access traffic from the purview of section 251(b)(5).

38. At least one court has already affirmed the principle that the standards and obligations set forth in section 251 are not intended automatically to supersede the Commission's authority over the services enumerated under section 251(g). This question arose in the Eighth Circuit Court of Appeals with respect to the access that LECs provide to IXCs to originate and terminate interstate long-distance calls. Citing section 251(g), the court concluded that the Act contemplates that "LECs will continue to provide exchange access to IXCs for long-distance service, and continue to receive payment, under the *pre-Act* regulations and rates."[67] In *CompTel,* the IXCs had argued that the interstate access services that LECs provide properly fell within the scope of "interconnection" under section 251(c)(2), and that, notwithstanding the carve-out of section 251(g), access charges therefore should be governed by the cost-based standard of section 252(d)(1), rather than determined under the Commission's section 201 authority. The Eighth Circuit rejected that argument, holding that access service does not fall within the scope of section 251(c)(2), and observing that "it is clear from the Act that Congress did *not* intend all access charges to move to cost-based pricing, at least not immediately."[68]

---

[65] The term "exchange service" as used in section 251(g) is not defined in the Act or in the MFJ. Rather, the term "exchange service" is used in the MFJ as part of the definition of the term "exchange access," which the MFJ defines as "the provision of exchange services for the purpose of originating or terminating interexchange telecommunications." *United States v. AT&T*, 552 F. Supp. at 228. Thus, the term "exchange service" appears to mean, in context, the provision of services in connection with *interexchange* communications. Consistent with that, in section 251(g), the term is used as part of the longer phrase "exchange services for such [exchange] access to interexchange carriers and information service providers." The phrasing in section 251(g) thus parallels the MFJ. All of this indicates that the term "exchange service" is closely related to the provision of exchange access and information access.

[66] Although section 251(g) does not itself compel this outcome with respect to *intrastate* access regimes (because it expressly preserves only *the Commission's* traditional policies and authority over *interstate* access services), it nevertheless highlights an ambiguity in the scope of "telecommunications" subject to section 251(b)(5) -- demonstrating that the term must be construed in light of other provisions in the statute. In this regard, we again conclude that it is reasonable to interpret section 251(b)(5) to exclude traffic subject to parallel intrastate access regulations, because "it would be incongruous to conclude that Congress was concerned about the effects of potential disruption to the interstate access charge system, but had no such concerns about the effects on analogous intrastate mechanisms." *Local Competition Order*, 11 FCC Rcd at 15869.

[67] *CompTel*, 117 F.3d at 1073 (emphasis added). The court continued that the Commission would be free under section 201 to alter its traditional regulatory treatment of interstate access service in the future, but that the standards set out in sections 251 and 252 would *not* be controlling. *Id.*

[68] *CompTel*, 117 F.3d at 1072 (emphasis added).

Neither the court nor the parties in *CompTel* distinguished between the situation in which *one LEC* provides access service (directly linking the end-user to the IXC) and the situation here in which *two LECs* collaborate to provide access to either an information service provider or IXC. In both circumstances, by its underlying rationale, *CompTel* serves as precedent for establishing that pre-existing regulatory treatment of the services enumerated under section 251(g) are carved out from the purview of section 251(b).

39. Accordingly, unless and until the Commission by regulation should determine otherwise, Congress preserved the pre-Act regulatory treatment of all the access services enumerated under section 251(g). These services thus remain subject to Commission jurisdiction under section 201 (or, to the extent they are *intra*state services, they remain subject to the jurisdiction of state commissions), whether those obligations implicate pricing policies as in *CompTel* or reciprocal compensation.[69] This analysis properly applies to the access services that incumbent LECs provide (either individually or jointly with other local carriers) to connect subscribers with ISPs for Internet-bound traffic. Section 251(g) expressly preserves the Commission's rules and policies governing "access . . . to information service providers" in the same manner as rules and policies governing access to IXCs.[70] As we discuss in more detail below, ISP-bound traffic falls under the rubric of "information access," a legacy term carried over from the MFJ.[71]

40. By its express terms, of course, section 251(g) permits the Commission to supersede pre-Act requirements for interstate access services. Therefore the Commission may make an affirmative determination to adopt rules that subject such traffic to obligations different than those that existed pre-Act. For example, consistent with that authority, the Commission has previously made the affirmative determination that certain categories of interstate access traffic

---

[69] For further discussion of the jurisdictionally interstate nature of ISP-bound traffic, *see infra* paras. 55-64. *See also NARUC v. FCC*, 737 F.2d at 1136 (determining that traffic to ESPs may properly constitute interstate access traffic); Access Billing Requirements for Joint Service Provision, CC Docket 87-579, Memorandum Opinion and Order, 4 FCC Rcd 7183 (1989).

[70] The Commission has historically dictated the pricing policies applicable to services provided by LECs to information service providers, although those policies differ from those applicable to LEC provision of access services to IXCs. Prior to the 1996 Act, it was the Commission that determined that ESPs either may purchase their interstate access services from interstate tariffs or (at their discretion) pay a combination of local business line rates, the *federal* subscriber line charges associated with those business lines, and, where appropriate, the *federal* special access surcharge. *See* note 105, *infra*. We conclude that section 251(g) preserves our ability to continue to dictate the pricing policies applicable to this category of traffic. We do not believe, moreover, that section 251(g) extends only to those specific carriers providing service on February 7, 1996. At the very least, subsection (g) is ambiguous on this point. On the one hand, the first sentence of this provision states that its terms apply to "each local exchange carrier, to the extent that it provides wireline services," without regard to whether it may be a BOC or a competitive LEC. 47 U.S.C. § 251(g). On the other hand, that same sentence refers to restrictions and obligations applicable to "such carrier" prior to February 8, 1996. *Id.* We believe that the most reasonable interpretation of that sentence, in this context, is that subsection (g) was intended to preserve pre-existing regulatory treatment for the enumerated *categories* of carriers, rather than requiring disparate treatment depending upon whether the LEC involved came into existence before or after February 1996.

[71] *See United States v. AT&T,* 552 F. Supp. at 229; *Advanced Services Remand Order*, 15 FCC Rcd at 406-08.

should be subject to section 251(c)(4).[72] Similarly, in implementing section 251(c)(3), the Commission has required incumbent LECs to unbundle certain network elements used in the provision of xDSL-based services.[73] In this instance, however, for the reasons set forth below,[74] we decline to modify the restraints imposed by section 251(g) and instead continue to regulate ISP-bound traffic under section 201.

41. Some may argue that, although the Commission did not analyze subsection (g) in the *Declaratory Ruling,* a passing reference to section 251(g) in one paragraph of the Commission's brief filed with the court in that proceeding suggests that the argument we make here has been specifically rejected by the court. We disagree. Because our analysis of subsection (g) was not raised in the order, the court, under established precedent, probably did not consider the argument when rendering its decision.[75] Indeed, subsection (g) is not mentioned in the court's opinion.

3. ISP-Bound Traffic Falls within the Categories Enumerated in Section 251(g)

42. Having determined that section 251(g) serves as a limitation on the scope of "telecommunications" embraced by section 251(b)(5), the next step in our inquiry is to determine whether ISP-bound traffic falls within one or more of the categories specified in section 251(g): exchange access, information access, and exchange services for such access provided to IXCs and information service providers. Regardless of whether this traffic falls under the category of "exchange access" -- an issue pending before the D.C. Circuit in a separate proceeding[76] - - we conclude that this traffic, at a minimum, falls under the rubric of "information access," a legacy

---

[72] *See* Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, Second Report and Order, 14 FCC Rcd 19237 (1997), *petition for review pending*, *Ass'n of Communications Enterprises v. FCC*, D.C. Circuit No. 00-1144. In effect, we have provided for concurrent authority under that provision and section 201 by permitting a party to purchase the same service under filed tariffs or to proceed under interconnection arrangements to secure resale services.

[73] *See* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, 3775 (1999). *See also Advanced Services Remand Order,* 15 FCC Rcd at 385, 386. We emphasize that these two examples are illustrative and may not be the only instances where the Commission chooses to supersede pre-Act requirements for interstate access services.

[74] *See infra* paras. 67-71.

[75] *See, e.g., SEC v. Chenery Corp.*, 318 U.S. 80, 88 (1943).

[76] *See Worldcom, Inc. v. FCC*, No. 00-1022 et al. (D.C. Cir.). In that proceeding, the Commission has argued that the category previously labeled "information access" under the MFJ is a subset of those services now falling under the category "exchange access" as set forth in section 3(16) of the Act, 47 U.S.C. 153(16), while incumbent LECs and others have argued that the two categories are mutually exclusive. We need not reargue here whether "information access" is a subset of "exchange access" or whether instead they are mutually exclusive categories. The only issue relevant to our section 251(g) inquiry in this case is whether ISP-bound traffic falls, at a minimum, within the legacy category of "information access." Both the Commission and incumbent LECs have agreed that the access provided to ISPs satisfies the definition of information access.

term imported into the 1996 Act from the MFJ, but not expressly defined in the Communications Act.

a. Background

43. Section 251(g) by its terms indicates that, in the provision of exchange access, information access, and exchange services for such access to IXCs and information service providers, various pre-existing requirements and obligations "including receipt of compensation" are preserved, whether these obligations stem from "any court order, *consent decree*, or regulation, order or policy of the Commission." (Emphasis added.) Similarly, in discussing this provision, the Joint Explanatory Statement of the Committee of Conference explicitly refers to preserving the obligations under the "AT&T Consent Decree."[77]

b. Discussion

44. We conclude that Congress's reference to "information access" in section 251(g) was intended to incorporate the meaning of the phrase "information access" as used in the AT&T Consent Decree.[78] The ISP-bound traffic at issue here falls within that category because it is traffic destined for an information service provider.[79] Under the consent decree, "information access" was purchased by "information service providers" and was defined as "the provision of specialized exchange telecommunications services . . . in connection with the origination, termination, transmission, switching, forwarding or routing of telecommunications traffic to or from the facilities of a provider of information services."[80] We conclude that this definition of "information access" was meant to include all access traffic that was routed by a LEC "to or from" providers of information services, of which ISPs are a subset.[81] The record in this proceeding also supports our interpretation.[82] When Congress passed the 1996 Act, it adopted

---

[77] *Joint Explanatory Statement of the Committee of Conference*, S. Conf. Rep. No. 230, 104th Cong., 2d Session at 123 (February 1, 1996).

[78] *United States v. AT&T*, 552 F. Supp. at 196, 229.

[79] *See* Letter from Gary L. Phillips, SBC, to Jon Nuechterlein, Deputy General Counsel, FCC, at 9 (Dec. 14, 2000)(stating that section 251(g) applies by its very terms to "information access").

[80] *United States v. AT&T*, 552 F. Supp. at 196, 229.

[81] This finding is consistent with our past statements on the issue. In the *Non-Accounting Safeguards Order*, we found that the access that LECs provide to enhanced service providers, including ISPs, constitutes "information access" as the MFJ defines that term. Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 22024 & n.621 (1996). Although we subsequently overruled our statement in that order that ISPs do not also purchase "exchange access" under section 3(16), we have not altered our finding that the access provided to enhanced service providers (including ISPs) is "information access." *Advanced Services Remand Order*, 15 FCC Rcd at 404-05.

[82] *See, e.g.,* Letter from Gary L. Phillips, SBC, to Jon Nuechterlein, Deputy General Counsel, FCC, at 9 (Dec. 14, 2000). Some have argued that "information access" includes only certain specialized functions unique to the needs of enhanced service providers and does not include basic telecommunications links used to provide enhanced service providers with access to the LEC network. *See, e.g.,* Brief of WorldCom, Inc., D.C. Circuit No. 00-1002, *et al.*, filed (continued....)

new terminology. The term "information access" is not, therefore, part of the new statutory framework. Because the legacy term "information access" in section 251(g) encompasses ISP-bound traffic, however, this traffic is excepted from the scope of the "telecommunications" subject to reciprocal compensation under section 251(b)(5).

45. We recognize, as noted earlier, that based on the rationale of the *Declaratory Ruling*, the court indicated that the question whether this traffic was "local or interstate" was critical to a determination of whether ISP-bound traffic should be subject to reciprocal compensation.[83] We believe that the court's assessment was a result of our statement in paragraph nine of the *Declaratory Ruling* that "when two carriers collaborate to complete a *local call*, the originating carrier is compensated by its end user and the terminating carrier is entitled to reciprocal compensation pursuant to section 251(b)(5) of the Act."[84] We were mistaken to have characterized the issue in that manner, rather than properly (and more naturally) interpreting the scope of "telecommunications" within section 251(b)(5) as being limited by section 251(g). By indicating that all "local calls," however defined, would be subject to reciprocal compensation obligations under the Act, we overlooked the interplay between these two inter-related provisions of section 251 -- subsections (b) and (g). Further, we created unnecessary ambiguity for ourselves, and the court, because the statute does not define the term "local call," and thus that term could be interpreted as meaning either traffic subject to local *rates* or traffic that is *jurisdictionally* intrastate. In the context of ISP-bound traffic, as the court observed, our use of the term "local" created a tension that undermined the prior order because the ESP exemption permitted ISPs to purchase access through local business tariffs,[85] yet the jurisdictional nature of this traffic has long been recognized as interstate.

46. For similar reasons, we modify our analysis and conclusion in the *Local Competition Order*.[86] There we held that "[t]ransport and termination of *local* traffic for purposes of reciprocal compensation are governed by sections 251(b)(5) and 251(d)(2)." We now hold that the telecommunications subject to those provisions are all such

(Continued from previous page)

Oct. 3, 2000, at 16 n.12. The MFJ definition of information access, however, includes the telecommunications links used for the "origination, termination, [and] transmission" of information services, *and "where necessary*, the provision of network signalling" and other functions. *United States v. AT&T*, 552 F. Supp. at 229 (emphasis added). Others have argued that the "information access" definition engrafts a geographic limitation that renders this service category a subset of telephone exchange service. *See* Letter from Richard Rindler, Swindler, Berlin, to Magalie Roman Salas, Secretary, FCC, at 3 (Apr. 12, 2001). We reject that strained interpretation. Although it is true that "information access" is necessarily initiated "in an exchange area," the MFJ definition states that the service is provided "*in connection with* the origination, termination, transmission, switching, forwarding or routing of telecommunications traffic to or from the facilities of a provider of information services" *United States v. AT&T*, 552 F. Supp. at 229 (emphasis added). Significantly, the definition does not further require that the transmission, once handed over to the information service provider, terminate within the same exchange area in which the information service provider first received the access traffic.

[83] *Bell Atlantic*, 206 F.3d at 5.

[84] *Declaratory Ruling*, 14 FCC Rcd at 3695 (emphasis added).

[85] This is the compensation mechanism chosen by the ISPs. *See* note 105, *infra*.

[86] *Local Competition Order*, 11 FCC Rcd at 1033-34.

telecommunications not excluded by section 251(g). In the *Local Competition Order*, as in the subsequent *Declaratory Ruling*, use of the phrase "local traffic" created unnecessary ambiguities, and we correct that mistake here.

47. We note that the exchange of traffic between LECs and commercial mobile radio service (CMRS) providers is subject to a slightly different analysis. In the *Local Competition Order,* the Commission noted its jurisdiction to regulate LEC-CMRS interconnection under section 332 of the Act[87] but decided, at its option, to apply sections 251 and 252 to LEC-CMRS interconnection.[88] At that time, the Commission declined to delineate the precise contours of or the relationship between its jurisdiction over LEC-CMRS interconnection under sections 251 and 332,[89] but it made clear that it was not rejecting section 332 as an independent basis for jurisdiction.[90] The Commission went on to conclude that section 251(b)(5) obligations extend to traffic transmitted between LECs and CMRS providers, because the latter are telecommunications carriers.[91] The Commission also held that reciprocal compensation, rather than interstate or intrastate access charges, applies to LEC-CMRS traffic that originates and terminates within the same Major Trading Area (MTA).[92] In so holding, the Commission expressly relied on its "authority under section 251(g) to preserve the current interstate access charge regime" to ensure that interstate access charges would be assessed only for traffic "currently subject to interstate access charges,"[93] although the Commission's section 332 jurisdiction could serve as an alternative basis to reach this result. Thus the analysis we adopt in this Order, that section 251(g) limits the scope of section 251(b)(5), does not affect either the application of the latter section to LEC-CMRS interconnection or our jurisdiction over LEC-CMRS interconnection under section 332.

4. Section 251(i) Preserves the Commission's Authority to Regulate Interstate Access Services

48. Congress also included a "savings provision" – subpart (i) – in section 251, which provides that "[n]othing in this section shall be construed to limit or otherwise affect the Commission's authority under section 201."[94] Under section 201, the Commission has the authority to regulate the *interstate* access services that LECs provide to connect end-users with

---

[87] 47 U.S.C. § 332; *Local Competition Order*, 11 FCC Rcd at 16005-06.

[88] *Local Competition Order*, 11 FCC Rcd at 16005-06; *see also Iowa Utils. Bd. v. FCC*, 120 F.3d at 800 n. 21 (finding that the Commission had jurisdiction under section 332 to issue rules regarding LEC-CMRS interconnection, including reciprocal compensation rules).

[89] We seek comment on these issues in the *NPRM*.

[90] *Local Competition Order*, 11 FCC Rcd at 16005.

[91] *Id.* at 16016.

[92] *Id.* at 16016-17.

[93] *Id.* at 16017.

[94] 47 U.S.C. § 251(i).

IXCs or information service providers to originate and terminate calls that travel across state lines.

49. We conclude that subpart (i) provides additional support for our finding that Congress has granted us the authority on a going-forward basis to establish a compensation regime for ISP-bound traffic.[95] When read as a whole, the most natural reading of section 251 is as follows: subsection (b) sets forth reciprocal compensation requirements for the transport and termination of "telecommunications"; subsection (g) excludes certain access services (including ISP-bound traffic) from that requirement; and subsection (i) ensures that, on a going-forward basis, the Commission has the authority to establish pricing for, and otherwise to regulate, interstate access services.

50. When viewed in the overall context of section 251, subsections (g) and (i) serve compatible, but different, purposes. Subsection (g) preserves rules and regulations that existed at the time Congress passed the 1996 Act, and thus functions primarily as a "backward-looking" provision (although it does grant the Commission the authority to supersede existing regulations). In contrast, we interpret section 251(i) to be a "forward-looking" provision. Thus, subsection (i) expressly affirms the Commission's role in an evolving telecommunications marketplace, in which Congress anticipates that the Commission will continue to develop appropriate pricing and compensation mechanisms for traffic that falls within the purview of section 201. This reading of section 251 is consistent with the notion that section 251 generally broadens the Commission's duties, particularly in the pricing context.[96]

51. We expect that, as new network architectures emerge, the nature of telecommunications traffic will continue to evolve. As we have already observed, since Congress passed the 1996 Act, customer usage patterns have changed dramatically; carriers are sending traffic over networks in new and different formats; and manufacturers are adding creative features and developing innovative network architectures. Although we cannot anticipate the direction that new technology will take us, we do expect the dramatic pace of change to continue. Congress clearly did not expect the dynamic, digital broadband driven telecommunications marketplace to be hindered by rules premised on legacy networks and technological assumptions that are no longer valid. Section 251(i), together with section 201, equips the Commission with the tools to ensure that the regulatory environment keeps pace with innovation.

5. ISP-Bound Traffic Falls Within the Purview of the Commission's Section 201 Authority

52. Having found that ISP-bound traffic is excluded from section 251(b)(5) by section 251(g), we find that the Commission has the authority pursuant to section 201 to establish rules governing intercarrier compensation for such traffic. Under section 201, the Commission has

[95] *See also* Letter from Gary L. Phillips, SBC, to Jon Nuechterlein, Deputy General Counsel, FCC, at 8 (Dec. 14, 2000).

[96] For example, section 251 has expanded upon our historic functions by providing us with the authority to set the framework for pricing rules applicable to unbundled network elements, purchased under interconnection agreements.

long exercised its *jurisdictional* authority to regulate the interstate access services that LECs provide to connect callers with IXCs or ISPs to originate or terminate calls that travel across state lines. Access services to ISPs for Internet-bound traffic are no exception. The Commission has held, and the Eighth Circuit has recently concurred, that traffic bound for information service providers (including Internet access traffic) often has an interstate component.[97] Indeed, that court observed that, although some traffic destined for information service providers (including ISPs) may be intrastate, the interstate and intrastate components cannot be reliably separated.[98] Thus, ISP traffic is properly classified as interstate,[99] and it falls under the Commission's section 201 jurisdiction.[100]

53. In its opinion remanding this proceeding, the court appeared to acknowledge that the end-to-end analysis was appropriate for determining the scope of the Commission's jurisdiction under section 201, stating that "[t]here is no dispute that the Commission has historically been justified in relying on this method when determining whether a particular communication is jurisdictionally interstate."[101] The court nevertheless found that we had not supplied a logical nexus between the jurisdictional end-to-end analysis (which delineates the contours of our section 201 authority) and our interpretation of the scope of section 251(b)(5). In that regard, the court appeared not to question the Commission's longstanding assertion of jurisdiction over ESP traffic, of which Internet-bound traffic is a subset.[102] It did, however, unambiguously question whether, for purposes of interpreting section 251(b)(5), the jurisdictional end-to-end analysis was dispositive. Accordingly, the court explained its basis for remand as follows: "Because the Commission has not supplied a real explanation for its decision to treat end-to-end analysis as controlling [in interpreting the scope of section 251(b)(5)] . . . we must vacate the ruling and remand the case."[103]

54. As explained above, we no longer construe section 251(b)(5) using the dichotomy set forth in the *Declaratory Ruling* between "local" traffic and interstate traffic. Rather, we have clarified that the proper analysis hinges on section 251(g), which limits the reach of the reciprocal compensation regime mandated in section 251(b). Thus our discussion no longer centers on the jurisdictional inquiry set forth in the underlying order. Nonetheless, we take this opportunity to respond to questions raised by the court regarding the differences between ISP-bound traffic (which we have always held to be predominantly interstate for jurisdictional

---

[97] *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523, 543 (8th Cir. 1998) (affirming the jurisdictionally mixed nature of ISP-bound traffic).

[98] *Id.*

[99] *See, e.g., Louisiana PSC v. FCC*, 476 U.S. 355, 375 n.4.

[100] *See* Letter from John W. Kure, Qwest, to Magalie Roman Salas, Secretary, FCC (Dec. 8, 2000)(attaching *A Legal Roadmap for Implementing a Bill and Keep Rule for All Wireline Traffic*, at 10-11)(*Qwest Roadmap).*

[101] *Bell Atlantic*, 206 F.3d at 5; *see Qwest Roadmap* at 4.

[102] The D.C. Circuit itself has long recognized that ESPs use interstate access. *See, e.g., NARUC v. FCC*, 737 F.2d at 1136.

[103] *Bell Atlantic*, 206 F.3d. at 8.

purposes) and intrastate calls to "communications-intensive business end user[s],"[104] such as travel agencies and pizza parlors.

55. Contrary to the arguments made by some IXCs, the Commission has been consistent in its jurisdictional treatment of ISP-bound traffic. For compensation purposes, in order to create a regulatory environment that will allow new and innovative services to flourish, the Commission has exempted enhanced service providers (including ISPs) from paying for interstate access service at the usage-based rates charged to IXCs.[105] The ESP exemption was and remains an affirmative *exercise* of federal regulatory authority over interstate access service under section 201, and, in affirming pricing under that exemption, the D.C. Circuit expressly recognized that ESPs use *interstate* access service.[106] Moreover, notwithstanding the ESP exemption, the Commission has always *permitted* enhanced service providers, including ISPs, to purchase their interstate access out of interstate tariffs -- thus underscoring the Commission's consistent view that the link LECs provide to connect subscribers with ESPs is an interstate access service.[107]

56. We do not believe that the court's decision to remand the *Declaratory Ruling* reflects a finding that such traffic constitutes two calls, rather than a single end-to-end call, for jurisdictional purposes. The court expressly acknowledged that "the end-to-end analysis applied by the Commission here is one that it has traditionally used to determine whether a call is within its interstate jurisdiction."[108] The court also said that "[t]here is no dispute that the Commission has historically been justified in relying on this method when determining whether a particular

---

[104] *Bell Atlantic,* 206 F.3d at 7.

[105] As noted, the Commission has permitted ESPs to pay local business line rates from intrastate tariffs for ILEC-provided access service, in lieu of interstate carrier access charges. *See, e.g., MTS/WATS Market Structure Order*, 97 FCC 2d at 715; *ESP Exemption Order*, 3 FCC Rcd at 2635 n.8, 2637 n.53. ESPs also pay the *federal* subscriber lines charges associated with those business lines and, where appropriate, the *federal* special access surcharge. The subscriber line charge (SLC) recovers a portion of the cost of a subscriber's line that is allocated, pursuant to jurisdictional separations, to the interstate jurisdiction. *See* 47 C.F.R. § 69.152 (defining SLC); 47 C.F.R. Part 36 (jurisdictional separations). The special access surcharge recovers for use of the local exchange when private line/PBX owners "circumvent the conventional long-distance network and yet achieve interstate connections beyond those envisioned by the private line service." *NARUC v. FCC,* 737 F.2d at 1138. *See* 47 C.F.R. § 69.115.

[106] With judicial approval, the Commission initially adopted this access service pricing policy in order to avoid rate shock to a fledgling enhanced services industry. *NARUC v. FCC*, 737 F.2d at 1136-37. In the decision affirming this pricing policy, the court expressly recognized that ESPs use interstate access service. *Id.* at 1136 (enhanced service providers "may, at times, heavily use exchange access"). The Commission recently decided to retain this policy, largely because it found that it made little sense to mandate, for the first time, the application of existing non-cost-based interstate access rates to enhanced services just as the Commission was reforming the access charge regime to eliminate implicit subsidies and to move such charges toward competitive levels. *Access Charge Reform Order*, 12 FCC Rcd at 16133, *aff'd, Southwestern Bell Telephone Co.*, 153 F.3d at 541-42.

[107] *See, e.g., MTS/WATS Market Structure Order*, 97 FCC 2d at 711-12, 722; Filing and Review of Open Network Architecture Plans, CC Docket No. 88-2, Memorandum Opinion and Order, 4 FCC Rd 1, 141 (1988), *aff'd, California v. FCC*, 4 F.3d 1505 (9th Cir. 1993) (*ONA Plans Order*); GTE Telephone Operating Cos., CC Docket No. 98-79, Memorandum Opinion and Order, 13 FCC Rcd 22466 (1998).

[108] *Bell Atlantic*, 206 F.3d at 3.

communication is jurisdictionally interstate."[109] And the court appeared to suggest, at least for the sake of argument, that the Commission had not misapplied that analysis *as a jurisdictional matter* in finding that ISP-bound traffic was interstate.[110] We do recognize, however, that the court was concerned by how one would categorize this traffic under our *prior* interpretation of section 251(b)(5), which focused on whether or not ISP-bound calls were "local." That inquiry arguably implicated the compensation mechanism for the traffic (which included a local component), as well as the meaning of the term "termination" in the specific context of section 251(b); but neither of these issues is germane to our assertion of jurisdiction here under our section 201 authority.

57. For jurisdictional purposes, the Commission views LEC-provided access to enhanced services providers, including ISPs, on the basis of the end points of the communication, rather than intermediate points of switching or exchanges between carriers (or other providers).[111] Thus, in the *ONA Plans Order*, the Commission emphasized that "when an enhanced service is interstate (that is, when it involves communications or transmissions between points in different states on an end-to-end basis), the underlying basic services are subject to [our jurisdiction]."[112] Consistent with that view, when end-to-end communications involving enhanced service providers cross state lines, the Commission has categorized the link that the LEC provides to connect the end-user with an enhanced service provider as interstate access service.[113] Internet service providers are a class of ESPs. Accordingly, the LEC-provided link between an end-user and an ISP is properly characterized as *interstate* access.[114]

58. Most Internet-bound traffic traveling between a LEC's subscriber and an ISP is indisputably interstate in nature when viewed on an end-to-end basis. Users on the Internet are interacting with a global network of connected computers. The consumer contracts with an ISP

---

[109] *Id. at 5.*

[110] *See, e.g., id.* at 6, 7 (accepting, *arguendo*, that ISP-bound traffic is like IXC-bound traffic for jurisdictional purposes).

[111] *See, e.g., BellSouth MemoryCall*, 7 FCC Rcd at 1620 (voicemail is interstate because "there is a continuous path of communications across state line between the caller and the voice mail service"); *ONA Plans Order,* 4 FCC Rcd at 141 (an enhanced service is subject to FCC authority if it is interstate, "that is, when it involves communications or transmissions between points in different states on an end-to-end basis").

[112] *ONA Plans Order*, 4 FCC Rcd at 141; *see also id.,* Memorandum Opinion and Order on Reconsideration, 5 FCC Rcd 3084, 3088-89 (1990), *aff'd, California v. FCC*, 4 F.3d 1505 (9th Cir. 1993)(rejecting claim that basic service elements, consisting of features and functions provided by telephone company's local switch for benefit of enhanced service providers and others, are separate *intra*state offerings even when used in connection with end-to-end transmissions).

[113] *See, e.g., MTS/WATS Market Structure Order*, 97 FCC 2d at 711 ("[a]mong the variety of users of access service are ... enhanced service providers"); Amendment of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, CC Docket No. 87-215, Notice of Proposed Rulemaking, 2 FCC Rcd 4305, 4305, 4306 (1987) (noting that enhanced service providers use "exchange access service"); *ESP Exemption Order*, 3 FCC Rcd at 2631 (referring to "certain classes of exchange access users, including enhanced service providers").

[114] *See, e.g., Access Charge Reform Order*, 12 FCC Rcd at 16131-32; GTE Telephone Operating Cos., 13 FCC Rcd at 22478. *Cf. Bell Atlantic,* 206 F.3d at 4, 6-7.

to provide access to the Internet. Typically, when the customer wishes to interact with a person, content, or computer, the customer's computer calls a number provided by the ISP that is assigned to an ISP modem bank. The ISP modem answers the call (the familiar squelch of computers handshaking). The user initiates a communication over the Internet by transmitting a command. In the case of the web, the user requests a webpage. This request may be sent to the computer that hosts the webpage. In real time, the web host may request that different pieces of that webpage, which can be stored on different servers across the Internet, be sent, also in real time, to the user. For example, on a sports page, only the format of the webpage may be stored at the host computer in Chicago. The advertisement may come from a computer in California (and it may be a different advertisement each time the page is requested), the sports scores may come from a computer in New York City, and a part of the webpage that measures Internet traffic and records the user's visit may involve a computer in Virginia. If the user decides to buy something from this webpage, say a sports jersey, the user clicks on the purchase page and may be transferred to a secure web server in Maryland for the transaction. A single web address frequently results in the return of information from multiple computers in various locations globally. These different pieces of the webpage will be sent to the user over different network paths and assembled on the user's display.[115]

59. The "communication" taking place is between the dial-up customer and the global computer network of web content, e-mail authors, game room participants, databases, or bulletin board contributors. Consumers would be perplexed to learn regulators believe they are communicating with ISP modems, rather than the buddies on their e-mail lists. The proper focus for identifying a communication needs to be the user interacting with a desired webpage, friend, game, or chat room, not on the increasingly mystifying technical and mechanical activity in the middle that makes the communication possible.[116] ISPs, in most cases, provide services that permit the dial-up Internet user to communicate directly with some distant site or party (other than the ISP) that the caller has specified.

60. ISP service is analogous, though not identical, to long distance calling service. An AT&T long distance customer contracts with AT&T to facilitate communications to out-of-state locations. The customer uses the local network to reach AT&T's facilities (its point of presence). By dialing "1" and an area code, the customer is in essence addressing his call to an out of state party and is instructing his LEC to deliver the call to his long distance carrier, and instructing the long distance carrier to pick up and carry that call to his intended destination. The caller on the other end will pick up the phone and respond to the caller. The communication will be between these two end-users. This analogy is not meant to prove that ISP service is identical to long distance service, but is used merely to bolster, by analogy, the reasonableness of not characterizing an ISP as the destination of a call, but as a facilitator of communication.

61. Moreover, as the local exchange carriers have correctly observed, the technical configurations for establishing dial-up Internet connections are quite similar to certain network

[115] Of course, the Internet provides applications other than the World Wide Web, such as e-mail, games, chat sites, or streaming media, which have different technical characteristics but all of which involve computers in multiple locations, often across state and national boundaries.

[116] *See Qwest Roadmap* at 4-5, 9-10.

configurations employed to initiate more traditional long-distance calls.[117] In most cases, an ISP's customer first dials a seven-digit number to connect to the ISP server before connecting to a website. Long-distance service in some network configurations is initiated in a substantially similar manner. In particular, under "Feature Group A" access, the caller first dials a seven-digit number to reach the IXC, and then dials a password and the called party's area code and number to complete the call. Notwithstanding this dialing sequence, the service the LEC provides is considered *interstate* access service, not a separate local call.[118] Internet calls operate in a similar manner: after reaching the ISP's server by dialing a seven-digit number, the caller selects a website (which is identified by a 12-digit Internet address, but which often is, in effect, "speed dialed" by clicking an icon) and the ISP connects the caller to the selected website. Such calling should yield the same jurisdictional result as the analogous calls to IXCs using "Feature Group A" access.

62. Commission precedent also rejects the two-call theory in the context of calls involving enhanced services. In *BellSouth MemoryCall*, the Commission preempted a state commission order that had prohibited BellSouth from expanding its voice mail service -- an enhanced service -- beyond its existing customers.[119] In doing so, it rejected claims by the state that the Commission lacked jurisdiction to preempt because, allegedly, out-of-state calls to the voice mail service really constituted two calls: an *inter*state call from the out-of-state caller to the telephone company switch that routes the call to the intended recipient's location, and a separate *intra*state call that forwards the communication from the switch to the voice mail apparatus in the event that the called party did not answer.[120] The Commission explained that, whether a basic telecommunications service is at issue, or whether an enhanced service rides on the telephone company's telecommunications service, the Commission's jurisdiction does not end at the local switchboard, but continues to the ultimate destination of the call.[121]

63. The Internet communication is not analogous to traditional telephone exchange services. Local calls set up communication between two parties that reside in the same local calling area. Prior to the introduction of local competition, that call would never leave the network of the incumbent LEC. As other carriers were permitted to enter the local market, a call might cross two or more carriers' networks simply because the two parties to the communication subscribed to two different local carriers. The two parties intending to communicate, however, remained squarely in the same local calling area. An Internet communication is not simply a local call from a consumer to a machine that is lopsided, that is, a local call where one party does most of the calling, or most of the talking. ISPs are service providers that technically modify and

[117] *See, e.g.,* Verizon Remand Reply at 9 (Internet traffic is indistinguishable from Feature Group A access service).

[118] *See Local Competition Order*, 11 FCC Rcd at 15935 n. 2091 (describing "Feature Group A" access service); *see also MCI Telecomm. Corp. v. FCC*, 566 F.2d 365, 367 n.3 (D.C. Cir. 1977), *cert. denied*, 434 U.S. 1040 (1978).

[119] *BellSouth MemoryCall*, 7 FCC Rcd at 1619.

[120] *Id.* at 1620.

[121] *Id.* at 1621.

translate communication, so that their customers will be able to interact with computers across the global Internet.[122]

64. The court in *Bell Atlantic* noted that FCC litigation counsel had differentiated ISP-bound traffic from ordinary long-distance calls by stating that the former "is really like a call to a local business" -- such as a pizza delivery firm, a travel reservation agency, a credit card verification firm, or a taxicab company -- "that then uses the telephone to order wares to meet the need."[123] We find, however, that this citation to a former litigation position does not require us to alter our analysis. First, the Commission itself has never analogized ISP-bound traffic in the manner cited in the agency's brief in *Southwestern Bell*. Indeed, in the particular order that the Commission was defending in *Southwestern Bell*, the Commission distinguished ISP-bound traffic from other access traffic on *other* grounds -- *e.g.*, call direction and call holding times[124] -- which have no arguable bearing on whether the traffic is one interstate call (as the Commission has always held) or two separate calls (one of which allegedly is intrastate) as some parties have contended. Second, the cited portion of the Commission's brief was not addressing jurisdiction at all. Rather, the brief was responding to a claim that the ESP exemption *discriminated* against IXCs and in favor of ISPs.[125] Finally, in the very case in which litigation counsel made the cited analogy, the Eighth Circuit affirmed the Commission's consistent view that ISP-bound traffic is, as a *jurisdictional* matter, predominantly interstate.[126] In any event, to the extent that our prior briefs could be read to conceptualize the nature of ISP service as local, akin to intense users of local service, we now embrace a different conceptualization that we believe more accurately reflects the nature of ISP service.

65. For the foregoing reasons, consistent with our longstanding precedent, we find that we continue to have jurisdiction under section 201, as preserved by section 251(i), to provide a compensation mechanism for ISP-bound traffic.

C. Efficient Intercarrier Compensation Rates and Rate Structures

66. Carriers currently recover the costs of call transport and termination through some combination of carrier access charges, reciprocal compensation, and end-user charges, depending upon the applicable regulatory regime. Having concluded that ISP-bound traffic is not subject to the reciprocal compensation obligations of section 251(b)(5), we must now determine, pursuant to our section 201 authority, what compensation mechanism is appropriate when carriers collaborate to deliver calls to ISPs. In the companion *NPRM*, we consider the desirability of

---

[122] It is important to note that a dial-up call to an ISP will not even be required when broadband services arrive. Those connections will be always on and there will be no phone call in any traditional sense. Indeed, the only initiating event will be the end-user interacting with other Internet content or users. Thus, increasingly, notions of two calls become meaningless.

[123] *Bell Atlantic*, 206 F.3d at 8 (citing FCC Brief at 76, *Southwestern Bell v. FCC*, 153 F.3d 523).

[124] *Access Charge Reform Order*, 12 FCC Rcd at 16133-34.

[125] *See* FCC Brief at 75-76, *Southwestern Bell v. FCC*, 153 F.3d 523.

[126] *Southwestern Bell v. FCC*, 153 F.3d at 534.

adopting a uniform intercarrier compensation mechanism, applicable to all traffic exchanged among telecommunications carriers, and, in that context, we intend to examine the merits of a bill and keep regime for all types of traffic, including ISP-bound traffic. In the meantime, however, we must adopt an interim intercarrier compensation rule to govern the exchange of ISP-bound traffic, pending the outcome of the *NPRM*. In particular, we must decide whether to impose (i) a "calling-party's-network-pays" (CPNP) regime, like reciprocal compensation, in which the calling party's network pays the network serving the ISP; (ii) a bill and keep regime in which all networks recover costs from their end-user customers and are obligated to deliver calls that originate on the networks of interconnecting carriers; or (iii) some other cost recovery mechanism. As set forth more fully below, our immediate goal in adopting an interim compensation mechanism is to address the market distortions created by the prevailing intercarrier compensation regime, even as we evaluate in a parallel proceeding what longer-term intercarrier compensation mechanisms are appropriate for this and other types of traffic.

1. CPNP Regimes Have Distorted the Development of Competitive Markets

67. For the reasons detailed below, we believe that a bill and keep approach to recovering the costs of delivering ISP-bound traffic is likely to be more economically efficient than recovering these costs from originating carriers. In particular, requiring carriers to recover the costs of delivering traffic to ISP customers directly from those customers is likely to send appropriate market signals and substantially eliminate existing opportunities for regulatory arbitrage. As noted above, we consider issues related to the broader application of bill and keep as an intercarrier compensation regime in conjunction with the *NPRM* that we are adopting concurrently with this Order. In this Order, however, we adopt an interim compensation mechanism for the delivery of ISP-bound traffic that addresses the regulatory arbitrage opportunities present in the existing carrier-to-carrier payments by limiting carriers' opportunity to recover costs from other carriers and requiring them to recover a greater share of their costs from their ISP customers.

68. In most states, reciprocal compensation governs the exchange of ISP-bound traffic between local carriers.[127] Reciprocal compensation is a CPNP regime in which the originating carrier pays an interconnecting carrier for "transport and termination," *i.e.,* for transport from the networks' point of interconnection and for any tandem and end-office switching.[128] The central problem with any CPNP regime is that carriers recover their costs not only from their end-user customers, but also from *other carriers*.[129] Because intercarrier compensation rates do not reflect

[127] In the *Declaratory Ruling*, we stated that, pending adoption of a federal rule governing intercarrier compensation for ISP-bound traffic, state commissions would determine whether reciprocal compensation was due for such traffic. *Declaratory Ruling*, 14 FCC Rcd at 3706. Since that time, most, though not all, states have ordered the payment of reciprocal compensation for ISP-bound traffic.

[128] 47 C.F.R. § 51.703(a).

[129] Recovery from other carriers is premised on the economic assumption that the carrier whose customer originates the call has "caused" the transport and termination costs associated with that call, and the originating carrier should, therefore, reimburse the interconnecting carrier for "transport and termination." The companion *NPRM* evaluates the validity of that assumption and tentatively concludes that it is an incorrect premise.

the degree to which the carrier can recover costs from its end-users, payments from other carriers may enable a carrier to offer service to its customers at rates that bear little relationship to its actual costs, thereby gaining an advantage over its competitors. Carriers thus have the incentive to seek out customers, including but not limited to ISPs, with high volumes of incoming traffic that will generate high reciprocal compensation payments.[130] To the extent that carriers offer these customers below cost retail rates subsidized by intercarrier compensation, these customers do not receive accurate price signals. Moreover, because the originating LEC typically charges its customers averaged rates, the originating end-user receives inaccurate price signals as the costs associated with the intercarrier payments are recovered through rates averaged across all of the originating carrier's end-users. Thus no subscriber faces a price that fully reflects the intercarrier payments. An ISP subscriber with extensive Internet usage may, for example, cause her LEC to incur substantial reciprocal compensation obligations to the LEC that serves her ISP, but that subscriber receives no price signals reflecting those costs because they are spread over all of her LEC's customers.

69. The resulting market distortions are most apparent in the case of ISP-bound traffic due primarily to the one-way nature of this traffic, and to the tremendous growth in dial-up Internet access since passage of the 1996 Act. Competitive carriers, regardless of the nature of their customer base, exchange traffic with the incumbent LECs at rates based on the incumbents' costs.[131] To the extent the traffic exchange is roughly balanced, as is typically the case when LECs exchange voice traffic, it matters little if rates reflect costs because payments in one direction are largely offset by payments in the other direction. The rapid growth in dial-up Internet use, however, created the opportunity to serve customers with large volumes of exclusively *incoming* traffic. And, for the reasons discussed above, the reciprocal compensation regime created an incentive to target those customers with little regard to the costs of serving them – because a carrier would be able to collect some or all of those costs from *other* carriers that would themselves be unable to flow these costs through to their own customers in a cost-causative manner.

70. The record is replete with evidence that reciprocal compensation provides enormous incentive for CLECs to target ISP customers. The four largest ILECs indicate that CLECs, on average, terminate eighteen times more traffic than they originate, resulting in annual CLEC reciprocal compensation billings of approximately two billion dollars, ninety percent of which is for ISP-bound traffic.[132] Verizon states that it sends CLECs, on average, twenty-one

[130] *Cf. Local Competition Order*, 11 FCC Rcd at 16043 (symmetrical termination payments to paging providers based on ILECs' costs "might create uneconomic incentives for paging providers to generate traffic simply in order to receive termination compensation").

[131] 47 C.F.R. § 51.705 (an incumbent LEC's rates for transport and termination shall be established on the basis of the forward-looking economic costs of such offerings); 47 C.F.R. § 51.711 (subject to certain exceptions, rates for transport and termination shall be symmetrical and equal to those that the incumbent LEC assesses upon other carriers for the same services).

[132] Letter from Robert T. Blau, BellSouth, to Magalie Roman Salas, Secretary, FCC (November 6, 2000); *see also* Verizon Remand Comments at 2 (Verizon will be billed more than one billion dollars in 2000 for Internet-bound calls); Letter from Richard J. Metzger, Focal, to Deena Shetler, Legal Advisor to Commissioner Gloria Tristani, FCC (Jan. 11, 2001)(ILECs owed $1.98 billion in reciprocal compensation to CLECs in 2000).

times more traffic than it receives, and some CLECs receive more than forty times more traffic than they originate.[133] Although there may be sound business reasons for a CLEC's decision to serve a particular niche market, the record strongly suggests that CLECs target ISPs in large part because of the availability of reciprocal compensation payments.[134] Indeed, some ISPs even seek to become CLECs in order to share in the reciprocal compensation windfall, and, for a small number of entities, this revenue stream provided an inducement to fraudulent schemes to generate dial-up minutes.[135]

71. For these reasons, we believe that the application of a CPNP regime, such as reciprocal compensation, to ISP-bound traffic undermines the operation of competitive markets.[136] ISPs do not receive accurate price signals from carriers that compete, not on the basis of the quality and efficiency of the services they provide, but on the basis of their ability to shift costs to other carriers. Efficient prices result when carriers offer the lowest possible rates based on the costs of the service they provide to ISPs, not when they can price their services without regard to cost. We are concerned that viable, long-term competition among efficient providers of local exchange and exchange access services cannot be sustained where the intercarrier compensation regime does not reward efficiency and may produce retail rates that do not reflect the costs of the services provided. As we explain in greater detail in the companion *NPRM*, we believe that a compensation regime, such as bill and keep, that requires carriers to recover more of their costs from end-users may avoid these problems.

72. We acknowledge that we did not always hold this view. In the *Local Competition Order*, the Commission concluded that state commissions may impose bill and keep arrangements for traffic subject to section 251(b)(5) *only* when the flow of traffic between interconnected carriers is roughly balanced and is expected to remain so.[137] The Commission reasoned that "bill-and-keep arrangements are not economically efficient because they distort carriers' incentives, encouraging them to overuse competing carriers' *termination* facilities by seeking customers that primarily *originate* traffic."[138] The concerns about the opportunity for cost recovery and economic efficiency are not present, however, to the extent that traffic between carriers is balanced and payments from one carrier will be offset by payments from the other

[133] Verizon Remand Comments at 11, 21. Verizon also cites extreme cases of CLECs that terminate in excess of *eight thousand* times more traffic than they originate. *Id.* at 21. *See also* Letter from Robert T. Blau, BellSouth; Melissa Newman, Qwest; Priscilla Hill-Ardoin, SBC; and Susanne Guyer, Verizon, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC (Nov. 9, 2000).

[134] *See, e.g.*, Verizon Remand Comments at 15 (citing case of CLEC offer of free long distance service to dial-up Internet customers, an offer it did not extend to its customers that accessed the Internet via cable modem or DSL service); SBC Remand Comments at 45 (citing examples of CLEC offering free service to ISPs that collocated in its switching centers and CLECs offering to share reciprocal compensation revenues with ISPs).

[135] *See, e.g.*, Verizon Remand Comments at 17-18.

[136] The *NPRM* that we adopt in conjunction with this Order seeks comment on the degree to which a modified CPNP regime might address these concerns.

[137] *Local Competition Order*, 11 FCC Rcd at 16054-55; *see also* 47 C.F.R. § 51.713(b).

[138] *Local Competition Order*, 11 FCC Rcd at 16055 (emphases added).

carrier. In these circumstances, the Commission found that bill and keep arrangements may minimize administrative burdens and transaction costs.[139]

73. Since that time, we have observed the development of competition in the local exchange market, and we now believe that the Commission's concerns about economic inefficiencies associated with bill and keep missed the mark, particularly as applied to ISP-bound traffic. The Commission appears to have assumed, at least implicitly, that the calling party was the sole cost causer of the call, and it may have overstated any incentives that a bill and keep regime creates to target customers that primarily originate traffic. A carrier must provide originating switching functions and must recover the costs of those functions from the originating end-user, not from other carriers. Originating traffic thus lacks the same opportunity for cost-shifting that reciprocal compensation provides with respect to serving customers with disproportionately incoming traffic. Indeed, it has become apparent that the obligation to pay reciprocal compensation to interconnecting carriers may give rise to uneconomic incentives. As the current controversy about ISP-bound traffic demonstrates, reciprocal compensation encourages carriers to overuse competing carriers' *origination* facilities by seeking customers that *receive* high volumes of traffic.

74. We believe that a bill and keep regime for ISP-bound traffic may eliminate these incentives and concomitant opportunity for regulatory arbitrage by forcing carriers to look only to their ISP customers, rather than to other carriers, for cost recovery. As a result, the rates paid by ISPs and, consequently, their customers should better reflect the costs of services to which they subscribe. Potential subscribers should receive more accurate price signals, and the market should reward efficient providers.[140] Although we do not reach any firm conclusions about bill and keep as a permanent mechanism for this or any other traffic, our evaluation of the record evidence to date strongly suggests that bill and keep is likely to provide a viable solution to the market distortions caused by the application of reciprocal compensation to ISP-bound traffic. We take that observation into account, below, as we fashion an interim compensation mechanism for this traffic.

75. Bill and keep also may address the problem regulators face in setting intercarrier compensation rates that correlate to the costs carriers incur to carry traffic that originates on other networks. The record suggests that market distortions appear to have been exacerbated by the prevalence of excessively high reciprocal compensation rates. Many CLECs argue that the current traffic imbalances between CLECs and ILECs are the product of greediness on the part of ILECs that insisted on above-cost reciprocal compensation rates in the course of negotiating or arbitrating initial interconnection agreements.[141] CLECs argue that, because these rates were artificially high, they naturally responded by seeking customers with large volumes of incoming traffic. If the parties or regulatory bodies merely set cost-based rates and rate structures, they

---

[139] *Id.* at 16055.

[140] We also note that bill and keep arrangements are common among entities providing Internet backbone services, where the larger carriers engage in so-called "peering" arrangements.

[141] Time Warner Remand Comments at 15-16.

argue, arbitrage opportunities and the resulting windfalls would disappear.[142] They note that reciprocal compensation rates have fallen dramatically as initial agreements expire and the parties negotiate new agreements.[143]

76. We do not believe that the solution to the current problem is as simple as the CLECs suggest.[144] We seek comment in the accompanying *NPRM* on the potential for a modified CPNP regime, such as the CLECs advocate, to solve some of the problems we identify here. We are convinced, however, that intercarrier payments for ISP-bound traffic have created severe market distortions. Although it would be premature to institute a full bill and keep regime before resolving the questions presented in the *NPRM*,[145] in seeking to remedy an exigent market problem, we cannot ignore the evidence we have accumulated to date that suggests that a bill and keep regime has very fundamental advantages over a CPNP regime for ISP-bound traffic. Contrary to the view espoused by CLECs, we are concerned that the market distortions caused by applying a CPNP regime to ISP-bound traffic cannot be cured by regulators or carriers simply attempting to "get the rate right." A few examples may illustrate the vexing problems regulators face. Reciprocal compensation rates have been determined on the basis of the ILEC's average costs of transport and termination. These rates do not, therefore, reflect the costs incurred by any particular carrier for providing service to a particular customer. This encourages carriers to target customers that are, on average, less costly to serve, and reap a reciprocal compensation windfall. Conversely, new entrants lack incentive to serve customers that are, on average, more costly to serve, even if the new entrant is the most efficient provider. It is not evident that this problem can be remedied by setting reciprocal compensation rates on the basis of the costs of carrier serving the called party (or, in the case of ISP-bound traffic, the CLEC that serves the ISP).[146] Apart from our reluctance to require new entrants to perform cost studies, it is entirely impracticable, if not impossible, for regulators to set different intercarrier compensation rates for each individual carrier, and those rates still might fail to reflect a carrier's costs as, for example, the nature of its customer base evolves. Furthermore, most states have adopted per minute reciprocal compensation rate structures. It is unlikely that any minute-of-use rate that is based on average costs and depends upon demand projections will reflect the costs of any given carrier to serve any particular customer. To the extent that transport and termination costs are capacity-

[142] Time Warner Remand Comments at 16. Some parties suggest that a bifurcated rate structure (a call set-up charge and a minute of use charge) would ensure appropriate cost recovery. *See* Sprint Remand Comments at 2-4. We seek comment on this approach in the *NPRM*.

[143] *See infra* note 158.

[144] We note that many CLECs expressed the same view following adoption of the *Declaratory Ruling* in 1999, yet the problems persist. *See, e.g.,* Cox Reply Comments at 6 (If termination "rates are too high, this is entirely at the ILEC's behest, and should be remedied in the next round of negotiations.").

[145] A number of questions must be resolved before we are prepared to implement fully a bill and keep regime where most costs are recovered from end-users. (We say most, not all, costs are recovered from end-users because a bill and keep regime may include intercarrier charges for transport between networks.) These questions include, for example, the allocation of transport costs between interconnecting carriers and the effect on retail prices of adopting a bill and keep regime that is not limited to ISP-bound traffic. We seek comment on these and other issues in the accompanying intercarrier *NPRM*.

[146] *Cf.* Verizon Remand Reply Comments at 14-15.

driven, moreover, virtually any minute-of-use rate will overestimate the cost of handling an additional call whenever a carrier is operating below peak capacity.[147] Regulators and carriers have long struggled with problems associated with peak-load pricing.[148] Finally, and most important, the fundamental problem with application of reciprocal compensation to ISP-bound traffic is that the intercarrier payments fail altogether to account for a carrier's opportunity to recover costs from its ISP customers. Modifications to intercarrier rate levels or rate structures suggested by CLECs do not address carriers' ability to shift costs from their own customers onto other carriers and their customers.

2. Intercarrier Compensation for ISP-bound Traffic

77. We believe that a hybrid mechanism that establishes relatively low per minute rates, with a cap on the total volume of traffic entitled to such compensation, is the most appropriate interim approach over the near term to resolve the problems associated with the current intercarrier compensation regime for ISP-bound traffic. Our primary goal at this time is to address the market distortions under the current intercarrier compensation regimes for ISP-bound traffic. At the same time, we believe it prudent to avoid a "flash cut" to a new compensation regime that would upset the legitimate business expectations of carriers and their customers. Subsequent to the Commission's *Declaratory Ruling*, many states have required the payment of reciprocal compensation for ISP-bound traffic, and CLECs may have entered into contracts with vendors or with their ISP customers that reflect the expectation that the CLECs would continue to receive reciprocal compensation revenue. We believe it appropriate, in tailoring an interim compensation mechanism, to take those expectations into account while simultaneously establishing rates that will produce more accurate price signals and substantially reduce current market distortions. Therefore, pending our consideration of broader intercarrier compensation issues in the *NPRM*, we impose an interim intercarrier compensation regime for ISP-bound traffic that serves to limit, if not end, the opportunity for regulatory arbitrage, while avoiding a market-disruptive "flash cut" to a pure bill and keep regime. The interim regime we establish here will govern intercarrier compensation for ISP-bound traffic until we have resolved the issues raised in the intercarrier compensation *NPRM*.

78. Beginning on the effective date of this Order, and continuing for six months, intercarrier compensation for ISP-bound traffic will be capped at a rate of $.0015/minute-of-use (mou). Starting in the seventh month, and continuing for eighteen months, the rate will be capped at $.0010/mou. Starting in the twenty-fifth month, and continuing through the thirty-sixth month or until further Commission action (whichever is later), the rate will be capped at $.0007/mou. In addition to the rate caps, we will impose a cap on total ISP-bound minutes for which a LEC may receive this compensation. For the year 2001, a LEC may receive compensation, pursuant to a particular interconnection agreement, for ISP-bound minutes up to a ceiling equal to, on an annualized basis, the number of ISP-bound minutes for which that LEC was entitled to compensation under that agreement during the first quarter of 2001, plus a ten

[147] The problem of putting a per minute price tag, in the form of intercarrier payments, where no per minute cost exists is exacerbated in the case of local exchange carriers that, in most cases, recover costs from their end-users on a flat-rated basis.

[148] *See, e.g., Local Competition Order*, 11 FCC Rcd at 16028-29.

percent growth factor. For 2002, a LEC may receive compensation, pursuant to a particular interconnection agreement, for ISP-bound minutes up to a ceiling equal to the minutes for which it was entitled to compensation under that agreement in 2001, plus another ten percent growth factor. In 2003, a LEC may receive compensation, pursuant to a particular interconnection agreement, for ISP-bound minutes up to a ceiling equal to the 2002 ceiling applicable to that agreement.[149]

79. We understand that some carriers are unable to identify ISP-bound traffic. In order to limit disputes and avoid costly efforts to identify this traffic, we adopt a rebuttable presumption that traffic delivered to a carrier, pursuant to a particular contract, that exceeds a 3:1 ratio of terminating to originating traffic is ISP-bound traffic that is subject to the compensation mechanism set forth in this Order. Using a rebuttable presumption in this context is consistent with the approach that numerous states have adopted to identify ISP-bound traffic or "convergent" traffic (including ISP traffic) that is subject to a lower reciprocal compensation rate.[150] A carrier may rebut the presumption, for example, by demonstrating to the appropriate state commission that traffic above the 3:1 ratio is in fact local traffic delivered to non-ISP customers. In that case, the state commission will order payment of the state-approved or state-arbitrated reciprocal compensation rates for that traffic. Conversely, if a carrier can demonstrate to the state commission that traffic it delivers to another carrier is ISP-bound traffic, even though it does not exceed the 3:1 ratio, the state commission will relieve the originating carrier of reciprocal compensation payments for that traffic, which is subject instead to the compensation regime set forth in this Order. During the pendency of any such proceedings, LECs remain obligated to pay the presumptive rates (reciprocal compensation rates for traffic below a 3:1 ratio, the rates set forth in this Order for traffic above the ratio), subject to true-up upon the conclusion of state commission proceedings.

80. We acknowledge that carriers incur costs in delivering traffic to ISPs, and it may be that in some instances those costs exceed the rate caps we adopt here. To the extent a LEC's costs of transporting and terminating this traffic exceed the applicable rate caps, however, it may recover those amounts from its own end-users.[151] We also clarify that, because the rates set forth

---

[149] This interim regime affects only the intercarrier *compensation* (*i.e.,* the rates) applicable to the delivery of ISP-bound traffic. It does not alter carriers' other obligations under our Part 51 rules, 47 C.F.R. Part 51, or existing interconnection agreements, such as obligations to transport traffic to points of interconnection.

[150] *See* Texas Public Utility Commission, Docket No. 21982, Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996, at 36 (July 12, 2000)(applying a blended tandem switching rate to traffic up to a 3:1 (terminating to originating) ratio; traffic above that ratio is presumed to be convergent traffic and is compensated at the end office rate unless the terminating carrier can prove tandem functionality); New York Public Service Commission, Op. No. 99-10, Proceeding on Motion of the Commission to Reexamine Reciprocal compensation, Opinion and Order, at 59-60 (Aug. 26, 1999) (traffic above a 3:1 ratio is presumed to be convergent traffic and is compensated at the end office rate unless the terminating carrier can demonstrate "that [the terminating] network and service are such as to warrant tandem-rate compensation"); Massachusetts Dept. of Telecommunications and Energy, D.T.E. 97-116-C, at 28-29 n.31 (May 19, 1999) (requiring reciprocal compensation for traffic that does not exceed a 2:1 (terminating to originating) ratio as a proxy to distinguish ISP-bound traffic from voice traffic; carriers may rebut that presumption).

[151] We note that CLEC end-user recovery is generally not regulated. As non-dominant carriers, CLECs can charge their end-users what the market will bear. Access Charge Reform, CC Docket No. 96-262, Sixth Report and Order, (continued....)

above are *caps* on intercarrier compensation, they have no effect to the extent that states have ordered LECs to exchange ISP-bound traffic either at rates below the caps we adopt here or on a bill and keep basis (or otherwise have not required payment of compensation for this traffic).[152] The rate caps are designed to provide a transition toward bill and keep or such other cost recovery mechanism that the Commission may adopt to minimize uneconomic incentives, and no such transition is necessary for carriers already exchanging traffic at rates below the caps. Moreover, those state commissions have concluded that, at least in their states, LECs receive adequate compensation from their own end-users for the transport and termination of ISP-bound traffic and need not rely on intercarrier compensation.

81. Finally, a different rule applies in the case where carriers are not exchanging traffic pursuant to interconnection agreements prior to adoption of this Order (where, for example, a new carrier enters the market or an existing carrier expands into a market it previously had not served). In such a case, as of the effective date of this Order, carriers shall exchange ISP-bound traffic on a bill-and-keep basis during this interim period. We adopt this rule for several reasons. First, our goal here is to address and curtail a pressing problem that has created opportunities for regulatory arbitrage and distorted the operation of competitive markets. In so doing, we seek to confine these market problems to the maximum extent while seeking an appropriate long-term resolution in the proceeding initiated by the companion *NPRM*. Allowing carriers in the interim to expand into new markets using the very intercarrier compensation mechanisms that have led to the existing problems would exacerbate the market problems we seek to ameliorate. For this reason, we believe that a standstill on any expansion of the old compensation regime into new markets is the more appropriate interim answer.[153] Second, unlike those carriers that are presently serving ISP customers under existing interconnection agreements, carriers entering new markets to serve ISPs have not acted in reliance on reciprocal compensation revenues and thus have no need of a transition during which to make adjustments to their prior business plans.

82. The interim compensation regime we establish here applies as carriers re-negotiate expired or expiring interconnection agreements. It does not alter existing contractual

(Continued from previous page)

15 FCC Rcd 12962, 13005 (2000) (*CALLS Order*)("Competitive LECs are not regulated by the Commission and are not restricted in the same manner as price caps LECs in how they recover their costs."). Accordingly, we permit CLECs to recover any additional costs of serving ISPs from their ISP customers. ILEC end-user charges, however, are generally regulated by the Commission, in the case of interstate charges, or by state commissions, for intrastate charges. Pursuant to the ESP exemption, ILECs will continue to serve their ISP customers out of intrastate business tariffs that are subject to state regulation. As the Commission said in 1997, if ILECs feel that these rates are so low as to preclude cost recovery, they should seek relief from their state commissions. *Access Charge Reform Order*, 12 FCC Rcd at 16134 ("To the extent that some intrastate rate structures fail to compensate incumbent LECs adequately for providing service to customers with *high volumes of incoming calls*, incumbent LECs may address their concerns to state regulators." (emphasis added)).

[152] Thus, if a state has ordered all LECs to exchange ISP-bound traffic on a bill and keep basis, or if a state has ordered bill and keep for ISP-bound traffic in a particular arbitration, those LECs subject to the state order would continue to exchange ISP-bound traffic on a bill and keep basis.

[153] *See American Public Communications Council v. FCC*, 215 F.3d 51 (D.C. Cir. 2000)("Where existing methodology or research in a new area of regulation is deficient, the agency necessarily enjoys broad discretion to attempt to formulate a solution to the best of its ability on the basis of available information.").

obligations, except to the extent that parties are entitled to invoke contractual change-of-law provisions. This Order does not preempt any state commission decision regarding compensation for ISP-bound traffic for the period prior to the effective date of the interim regime we adopt here. Because we now exercise our authority under section 201 to determine the appropriate intercarrier compensation for ISP-bound traffic, however, state commissions will no longer have authority to address this issue. For this same reason, as of the date this Order is published in the Federal Register, carriers may no longer invoke section 252(i) to opt into an existing interconnection agreement with regard to the rates paid for the exchange of ISP-bound traffic.[154] Section 252(i) applies only to agreements arbitrated or approved by state commissions pursuant to section 252; it has no application in the context of an intercarrier compensation regime set by this Commission pursuant to section 201.[155]

83. This interim regime satisfies the twin goals of compensating LECs for the costs of delivering ISP-bound traffic while limiting regulatory arbitrage. The interim compensation regime, as a whole, begins a transition toward what we have tentatively concluded, in the companion *NPRM*, to be a more rational cost recovery mechanism under which LECs recover more of their costs from their own customers. This compensation mechanism is fully consistent with the manner in which the Commission has directed incumbent LECs to recover the costs of serving ESPs, including ISPs.[156] The three-year transition we adopt here ensures that carriers have sufficient time to re-order their business plans and customer relationships, should they so choose, in light of our tentative conclusions in the companion *NPRM* that bill and keep is the appropriate long-term intercarrier compensation regime. It also affords the Commission adequate time to consider comprehensive reform of all intercarrier compensation regimes in the *NPRM* and any resulting rulemaking proceedings. Both the rate caps and the volume limitations reflect our view that LECs should begin to formulate business plans that reflect decreased reliance on revenues from intercarrier compensation, given the trend toward substantially lower rates and the strong possibility that the *NPRM* may result in the adoption of a full bill and keep regime for ISP-bound traffic.

84. We acknowledge that there is no exact science to setting rate caps to limit

[154] 47 U.S.C. § 252(i) (requiring LECs to "make available any interconnection, service, or network element provided under an agreement approved under this section" to "any other requesting telecommunications carrier"). This Order will become effective 30 days after publication in the Federal Register. We find there is good cause under 5 U.S.C. § 553(d)(3), however, to prohibit carriers from invoking section 252(i) with respect to rates paid for the exchange of ISP-bound traffic upon publication of this Order in the Federal Register, in order to prevent carriers from exercising opt in rights during the thirty days after Federal Register publication. To permit a carrier to opt into a reciprocal compensation rate higher than the caps we impose here during that window would seriously undermine our effort to curtail regulatory arbitrage and to begin a transition from dependence on intercarrier compensation and toward greater reliance on end-user recovery.

[155] In any event, our rule implementing section 252(i) requires incumbent LECs to make available "[i]ndividual interconnection, service, or network element arrangements" to requesting telecommunications carriers only "for a reasonable period of time." 47 C.F.R. § 51.809(c). We conclude that any "reasonable period of time" for making available rates applicable to the exchange of ISP-bound traffic expires upon the Commission's adoption in this Order of an intercarrier compensation mechanism for ISP-bound traffic.

[156] *Access Charge Reform Order*, 12 FCC Rcd at 16133-34.

carriers' ability to draw revenue from other carriers, rather than from their own end-users. Our adoption of the caps here is based on a number of considerations. First, rates that produce meaningful reductions in intercarrier payments for ISP-bound traffic must be at least as low as rates in existing interconnection agreements. Second, although we make no finding here regarding the actual costs incurred in the delivery of ISP-bound traffic, there is evidence in the record to suggest that technological developments are reducing the costs incurred by carriers in handling all sorts of traffic, including ISP-bound traffic.[157] Third, although the process has proceeded too slowly to address the market distortions discussed above, we note that negotiated reciprocal compensation rates continue to decline as ILECs and CLECs negotiate new interconnection agreements. Finally, CLECs have been on notice since the 1999 *Declaratory Ruling* that it might be unwise to rely on the continued receipt of reciprocal compensation for ISP-bound traffic, thus many have begun the process of weaning themselves from these revenues.

85. The rate caps adopted herein reflect all these considerations. The caps we have selected approximate the downward trend in intercarrier compensation rates reflected in recently negotiated interconnection agreements. In these agreements, carriers have agreed to rates, like those we adopt here, that decline each year of a three-year contract term, and at least one agreement reflects different rates for balanced and unbalanced traffic.[158] For example, the initial rate cap of $.0015/mou approximates the rates applicable this year in agreements Level 3 has negotiated with Verizon and SBC.[159] The $.0010/mou rate that applies during most of the three-

[157] *See, e.g.,* Letter from David J. Hostetter, SBC, to Magalie Roman Salas, Secretary, FCC (Feb. 14, 2001), Attachment (citing September 2000 Morgan Stanley Dean Witter report that discusses utilization of lower cost switch technology); Donny Jackson, "One Giant Leap for Telecom Kind?," *Telephony,* Feb. 12, 2001, at 38 (discussing cost savings associated with replacing circuit switches with packet switches); Letter from Gary L. Phillips, SBC, to Magalie Roman Salas, Secretary, FCC (Feb. 16, 2001) (attaching press release from Focal Communications announcing planned deployment of next-generation switching technology "at a fraction of the cost of traditional equipment"); *see also infra* para. 93.

[158] The Commission takes notice of the following interconnection agreements: (1) Level 3 Communications and SBC Communications (effective through May 2003): This 13-state agreement has two sets of rates. For balanced traffic, the rate is $.0032/mou. For traffic that is out of balance by a ratio exceeding 3:1, the rate starts at $.0018/mou, declining to a weighted average rate of $.0007/mou by June 1, 2002. *See* PR Newswire, WL PRWIRE 07:00:00 (Jan. 17, 2001); Letter from John T. Nakahata, Harris, Wiltshire & Grannis, to Magalie Roman Salas, Secretary, FCC, Attachment (Jan. 19, 2001). (2) ICG Communications and BellSouth (retroactively effective to Jan. 1, 2000): This agreement provides for rates to decline over three years, from $0.002/mou to $0.00175/mou to $0.0015/mou. *See* Communications Daily, 2000 WL 4694709 (Mar. 15, 2000). (3) KMC Telecom and BellSouth: This agreement provides for a rate of $0.002/mou in 2000, $0.00175/mou in 2001, $0.0015/mou in 2002. *See* Business Wire, WL 5/18/00 BWIRE 12:50:000 (May 18, 2000). (4) Level 3 Communications and Verizon (formerly Bell Atlantic) (effective Oct. 14, 1999): This agreement governs all of the former Bell Atlantic/NYNEX states. The applicable rate declines over the term of the agreement from $.003/mou in 1999 to rates in 2001 of $.0015/mou for balanced traffic and $.0012/mou where the traffic imbalance exceeds a 10:1 ratio. *See* Letter from Joseph J. Mulieri, Bell Atlantic, to Magalie Roman Salas, Secretary, FCC (Nov. 22, 1999)(attaching agreement); *see also* Letter from John T. Nakahata, Harris, Wiltshire & Grannis, to Magalie Roman Salas, Secretary, FCC, at 2 (Jan. 4, 2001)(reciprocal compensation rate in most recent Level 3 – Verizon agreement is now $.0012/mou in all states except New York, where the rate is $.0015/mou).

[159] In the Level 3 – SBC agreement, the applicable rate is $.0018/mou for traffic that exceeds a 3:1 ratio; in the Level 3 – Verizon agreement, the applicable rate is $.0015/mou for balanced traffic and $.0012/mou for traffic that exceeds a 10:1 ratio. *See supra* note 158.

year interim period reflects a proposal by ALTS, the trade association representing CLECs, for a transition plan pursuant to which intercarrier compensation payments for ISP-bound traffic would decline to $.0010/mou.[160] Similarly, the $.0007/mou rate reflects the average rate applicable in 2002 under Level 3's agreement with SBC.[161] We conclude, therefore, that the rate caps constitute a reasonable transition toward the recovery of costs from end-users.

86. We impose an overall cap on ISP-bound minutes for which compensation is due in order to ensure that growth in dial-up Internet access does not undermine our efforts to limit intercarrier compensation for this traffic and to begin, subject to the conclusion of the *NPRM* proceedings, a smooth transition toward a bill and keep regime. A ten percent growth cap, for the first two years, seems reasonable in light of CLEC projections that the growth of dial-up Internet minutes will fall in the range of seven to ten percent per year.[162] We are unpersuaded by the ILECs' projections that dial-up minutes will grow in the range of forty percent per year,[163] but adoption of a cap on growth largely moots this debate. If CLECs have projected growth in the range of ten percent, then limiting intercarrier compensation at that level should not disrupt their customer relationships or their business planning. Nothing in this Order prevents any carrier from serving or indeed expanding service to ISPs, so long as they recover the costs of additional minutes from their ISP customers. The caps merely ensure that growth in minutes above the caps is based on a given carrier's ability to provide efficient and quality service to ISPs, rather than on a carrier's desire to reap an intercarrier compensation windfall.

87. We are not persuaded by arguments proffered by CLECs that requiring them to recover more of their costs from their ISP customers will render it impossible for CLECs profitably to serve ISPs or will lead to higher rates for Internet access.[164] First, as noted above, this compensation mechanism is fully consistent with the manner in which this Commission has directed ILECs to recover the costs of serving ISPs.[165] Moreover, the evidence in the record does not demonstrate that CLECs cannot compete for ISP customers in the growing number of states that have adopted bill and keep for ISP-bound traffic or that the cost of Internet access has

---

[160] *See* Letter from Jonathan Askin, ALTS, to Magalie Roman Salas, Secretary, FCC, at 3 (Dec. 19, 2000).

[161] *See supra* note 158.

[162] *See, e.g.,* Letter from Jonathan Askin, ALTS, to Magalie Roman Salas, Secretary, FCC (Dec. 18, 2000) (offering evidence that dial-up traffic per household will grow only 7%/year from 1998 to 2003 and that dial-up household penetration will decline between 2000 and 2003); Letter from Jonathan Askin, ALTS, to Magalie Roman Salas, Secretary, FCC (Jan. 9, 2001)(citing, *inter alia*, Merrill Lynch estimate of 7% annual increased Internet usage per user between 1999 and 2003, and PricewaterhouseCoopers' study suggesting that Internet usage per user declined from 1999 to 2000).

[163] *See, e.g.,* Letter from Robert T. Blau, BellSouth, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC (Dec. 22, 2000) (forecasting 42% annual growth in total Internet access minutes between 2000 and 2003); *but see* Dan Beyers, "Internet Use Slipped Late Last Year," Washingtonpost.com, Feb. 22, 2001, at E10 (noting decline in average time spent online in 2000).

[164] *See, e.g.,* Time Warner Remand Comments at 4-5; Centennial Remand Comments at 2, 6-7.

[165] *Access Charge Reform Order*, 12 FCC Rcd at 16134; *MTS/WATS Market Structure Order*, 97 FCC 2d at 720-721.

increased in those states. Second, next-generation switching and other technological developments appear to be contributing to a decline in the costs of serving ISPs (and other customers).[166] Third, if reciprocal compensation merely enabled CLECs to recover the costs of serving ISPs, CLECs should be indifferent between serving ISPs and other customers. Instead, CLECs have not contradicted ILEC assertions that more than ninety percent of CLEC reciprocal compensation billings are for ISP-bound traffic,[167] suggesting that there may be a considerable margin between current reciprocal compensation rates and the actual costs of transport and termination.[168] Finally, there is reason to believe that our failure to act, rather than the actions we take here, would lead to higher rates for Internet access, as ILECs seek to recover their reciprocal compensation liability, which they incur on a minute-of-use basis, from their customers who call ISPs.[169] Alternatively, ILECs might recover these costs from all of their local customers, including those who do not call ISPs.[170] There is no public policy rationale to support a subsidy running from all users of basic telephone service to those end-users who employ dial-up Internet access.[171]

88. We also are not convinced by the claim of CLECs that limiting intercarrier compensation for ISP-bound traffic will result in a windfall for the incumbent LECs.[172] The CLECs argue that the incumbents' local rates are set to recover the costs of originating and terminating calls and that the ILECs avoid termination costs when their end-users call ISP customers served by CLECs. The record does not establish that ILECs necessarily avoid costs when they deliver calls to CLECs,[173] and CLECs have not demonstrated that ILEC end-user rates are designed to recover from the originating end-user the costs of delivering calls to ISPs. The ILECs point out that, in response to their complaints about the costs associated with delivering

---

[166] *See infra* para. 93.

[167] *See* Letter from Robert T. Blau, BellSouth, *et al.*, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC, at 4 (Nov. 3, 2000); SBC Remand Comments at 42, 51, 57.

[168] We do not suggest that it costs CLECs less to serve ISPs than other types of customers. New switching technologies make it less costly to serve *all* customers. If, however, costs are lower than prevailing reciprocal compensation rates, then CLECs are likely to target customers, such as ISPs, with predominantly incoming traffic, in order to maximize the resulting profit.

[169] *See, e.g.,* Verizon Remand Comments at 16.

[170] *Id.*

[171] Most CLECs assert that they compete with ILECs on service, not price, and that the rates they charge to ISPs are comparable to the ILEC rates for the same services. *See, e.g.,* Time Warner Remand Comments at 5. We acknowledge, however, that any CLECs that use reciprocal compensation payments to offer below cost service to ISPs may be unable to continue that practice under the compensation regime we adopt here. We reiterate that we see no public policy reason to maintain a subsidy running from ILEC end-users to ISPs and their customers.

[172] *See, e.g.,* Letter from Robert W. McCausland, Allegiance Telecom; Kelsi Reeves, Time Warner Telecom; Richard J. Metzger, Focal, R. Gerard Salemme, XO Communications; and Heather B. Gold, Intermedia; to Dorothy Attwood, Chief, Common Carrier Bureau, FCC, at 6 (Oct. 20, 2000).

[173] *See, e.g.,* SBC Remand Reply Comments at 31-32 (explaining how an ILEC may incur additional switching and transport costs when its end-user customer calls an ISP served by a CLEC).

traffic to ISPs, the Commission has directed them to seek permission from state regulators to raise the rates they charge *the ISPs*, an implicit acknowledgement that ILECs may not recover all of their costs from the originating end-user.[174]

3. Relationship to Section 251(b)(5)

89. It would be unwise as a policy matter, and patently unfair, to allow incumbent LECs to benefit from reduced intercarrier compensation rates for ISP-bound traffic, with respect to which they are net payors,[175] while permitting them to exchange traffic at state reciprocal compensation rates, which are much higher than the caps we adopt here, when the traffic imbalance is reversed.[176] Because we are concerned about the superior bargaining power of incumbent LECs, we will not allow them to "pick and choose" intercarrier compensation regimes, depending on the nature of the traffic exchanged with another carrier. The rate caps for ISP-bound traffic that we adopt here apply, therefore, *only* if an incumbent LEC offers to exchange all traffic subject to section 251(b)(5)[177] at the same rate. Thus, if the applicable rate cap is $.0010/mou, the ILEC must offer to exchange section 251(b)(5) traffic at that same rate. Similarly, if an ILEC wishes to continue to exchange ISP-bound traffic on a bill and keep basis in a state that has ordered bill and keep, it must offer to exchange all section 251(b)(5) traffic on a bill and keep basis.[178] For those incumbent LECs that choose *not* to offer to exchange section 251(b)(5) traffic subject to the same rate caps we adopt for ISP-bound traffic, we order them to exchange ISP-bound traffic at the state-approved or state-arbitrated reciprocal compensation rates

---

[174] *See Access Charge Reform Order*, 12 FCC Rcd at 16134; *see also MTS/WATS Market Structure Order*, 97 FCC 2d at 721 (the local business line rate paid by ISPs subsumes switching costs). Moreover, most states have adopted price cap regulation of local rates, in which case rates do not necessarily correlate to cost in the manner the CLECs suggest. *See* "Price Caps Standard Form of Telco Regulation in 70% of States," Communications Daily, 1999 WL 7580319 (Sept. 8, 1999).

[175] The four largest incumbent LECs – SBC, BellSouth, Verizon, and Qwest – estimate that they owed over $2 billion in reciprocal compensation for ISP-bound traffic in 2000. *See, e.g.,* Letter from Robert T. Blau, BellSouth, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC (Jan. 16, 2001).

[176] More calls are made from wireless phones to wireline phones than vice-versa. The ILECs, therefore, are net recipients of reciprocal compensation from wireless carriers.

[177] Pursuant to the analysis we adopt above, section 251(b)(5) applies to telecommunications traffic between a LEC and a telecommunications carrier other than a CMRS provider that is not interstate or intrastate access traffic delivered to an IXC or an information service provider, and to telecommunications traffic between a LEC and a CMRS provider that originates and terminates within the same MTA. *See supra* § IV.B.

[178] If, however, a state has ordered bill and keep for ISP-bound traffic only with respect to a particular interconnection agreement, as opposed to state-wide, we do not require the incumbent LEC to offer to exchange all section 251(b)(5) traffic on a bill and keep basis. This limitation is necessary so that an incumbent is not required to deliver all section 251(b)(5) in a state on a bill and keep basis even though it continues to pay compensation for most ISP-bound traffic in that state. *See, e.g.,* Letter from John W. Kure, Qwest, to Magalie Roman Salas, Secretary, FCC (April 2, 2001)(citing, for example, Washington state, where 16% of ISP-bound traffic is subject to bill and keep). In those states, the rate caps we adopt here will apply to ISP-bound traffic that is not subject to bill and keep under the particular interconnection agreement if the incumbent LEC offers to exchange all section 251(b)(5) traffic subject to those rate caps.

reflected in their contracts.[179] This "mirroring" rule ensures that incumbent LECs will pay the same rates for ISP-bound traffic that they receive for section 251(b)(5) traffic.

90. This is the correct policy result because we see no reason to impose different rates for ISP-bound and voice traffic. The record developed in response to the *Intercarrier Compensation NPRM* and the *Public Notice* fails to establish any inherent differences between the costs on any one network of delivering a voice call to a local end-user and a data call to an ISP.[180] Assuming the two calls have otherwise identical characteristics (*e.g.*, duration and time of day), a LEC generally will incur the same costs when delivering a call to a local end-user as it does delivering a call to an ISP.[181] We therefore are unwilling to take any action that results in the establishment of separate intercarrier compensation rates, terms, and conditions for local voice and ISP-bound traffic.[182] To the extent that the record indicates that per minute reciprocal compensation rate levels and rate structures produce inefficient results, we conclude that the problems lie with this recovery mechanism in general and are not limited to any particular type of traffic.

91. We are not persuaded by commenters' claims that the rates for delivery of ISP-bound traffic and local voice traffic should differ because delivering a data call to an ISP is inherently less costly than delivering a voice call to a local end-user. In an attached declaration to Verizon's comments, William Taylor argues that reciprocal compensation rates may reflect switching costs associated with both originating and terminating functions, despite the fact that ISP traffic generally flows in only one direction.[183] If correct, however, this observation suggests a need to develop rates or rate structures for the transport and termination of *all* traffic that

---

[179] ILECs may make this election on a state-by-state basis.

[180] Many commenters argue that there is, in fact, no difference between the cost and network functions involved in terminating ISP-bound calls and the cost and functions involved in terminating other calls to users of the public switched telephone network. *See, e.g.,* AOL Comments at 10-12 ("there is absolutely no technical distinction, and therefore no cost differences, between the way an incumbent LEC network handles ISP-destined traffic and the way it handles other traffic within the reciprocal compensation framework."); AT&T Comments at 10-11 ("[T]here is no economic justification for subjecting voice and data traffic to different compensation rules." "ILECs have not demonstrated, and cannot demonstrate, that the costs of transporting and terminating data traffic differ categorically from the costs of transporting and terminating ordinary voice traffic."); Choice One Comments at 8 ("[C]osts do not vary significantly based on whether data or voice traffic is being transmitted."); Corecomm Reply at 2 (network functions are identical whether a carrier is providing service to an ISP or any other end-user); Cox Comments at 7 & Exhibit 2, Statement of Gerald W. Brock at 2 ("None of the distinctions between ISP calls and average calls relate to a cost difference for handling the calls."); MediaOne Comments at 4 (LECs incur the same costs for terminating calls to an ISP as they do for terminating any other local calls); Time Warner Comments at 9 ("[A]ll LECs perform the same functions when transporting and delivering calls to ISP end-users as they do when transporting and delivering calls to other end-users. When LECs perform the same functions, they incur the same costs."); Letter from Donald F. Shepheard, Time Warner Telecom, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC (Feb. 28, 2001)(disputing claim that CLEC switching costs are as low as the ILECs argue).

[181] *See, e.g.,* Cox Comments at Exhibit 2, Statement of Gerald W. Brock at 2.

[182] *See, e.g.,* Intermedia Comments at 3-4 (arguing that the rates for transport and termination of ISP-bound traffic must be identical to the rates established for the transport and termination of local traffic).

[183] *See* Verizon Remand Comments, Declaration of William E. Taylor at 14, 17.

exclude costs associated solely with originating switching.[184] Mr. Taylor similarly argues that ISP-bound calls generally are longer in duration than voice calls, and that a per-minute rate structure applied to calls of longer duration will spread the fixed costs of these calls over more minutes, resulting in lower per-minute costs, and possible over recovery of the fixed costs incurred.[185] Any possibility of over recovery associated with calls (to ISPs or otherwise) of longer than average duration can be eliminated through adoption of rate structures that provide for recovery of per-call costs on a per-call basis, and minute-of-use costs on a minute-of-use basis.[186] We also are not convinced that ISP-bound calls have a lower load distribution (*i.e.*, number and duration of calls in the busy hour as a percent of total traffic), and that these calls therefore impose lower additional costs on a network.[187] It is not clear from the record that there is any "basis to speculate that the busy hour for calls to ISPs will be different than the CLEC switch busy hour,"[188] especially when the busy hour is determined by the flow of both voice and data traffic.

92. Nor does the record demonstrate that CLECs and ILECs incur different costs in delivering traffic that would justify disparate treatment of ISP-bound traffic and local voice traffic under section 251(b)(5). Ameritech maintains that it costs CLECs less to deliver ISP-bound traffic than it costs incumbent LECs to deliver local traffic because CLECs can reduce transmission costs by locating their switches close to ISPs.[189] The proximity of the ISP or other end-user to the delivering carrier's switch, however, is irrelevant to reciprocal compensation rates.[190] The Commission concluded in the *Local Competition Order* that the non-traffic sensitive cost of the local loop is not an "additional" cost of terminating traffic that a LEC is entitled to recover through reciprocal compensation.[191]

93. SBC argues that CLECs should not be entitled to symmetrical reciprocal compensation rates for the delivery of ISP-bound traffic, because CLECs do not provide end office switching functionality to their ISP customers and therefore do not incur the same costs that ILECs incur when delivering local voice traffic. Specifically, SBC claims that the switching

---

[184] *See* Time Warner Remand Reply Comments, Exhibit 1, Declaration of Don J. Wood at 14. *See also* Letter from John W. Kure, Qwest, to Magalie Roman Salas, Secretary, FCC, Attachment at 7-8 (Oct. 26, 2000).

[185] *See* Verizon Remand Comments, Declaration of William E. Taylor at 14-15.

[186] *See* Time Warner Remand Reply Comments, Exhibit 1, Declaration of Don J. Wood at 10-11. Time Warner also disputes that the "average duration of calls to ISPs has been accurately measured to date." *Id.* at 11.

[187] *See* Verizon Remand Comments, Declaration of William E. Taylor at 17-18.

[188] *See* Time Warner Remand Reply Comments, Exhibit 1, Declaration of Don J. Wood at 14-15.

[189] *See* Letter from Gary L. Phillips, Ameritech, to Magalie Roman Salas, Secretary, FCC, Attachment at 5 (Sept. 14, 1999). *See also* SBC Remand Comments at 32-33 (referring to Global NAPS Comments, Exhibit 1, Statement of Fred Goldstein at 6, which describes CLEC reduction of loop costs through collocation); Letter from Melissa Newman, U S West, to Magalie Roman Salas, Secretary, FCC, Attachment at 8 (Dec. 2, 1999).

[190] *See* Time Warner Remand Reply Comments, Exhibit 1, Declaration of Don J. Wood at 25.

[191] *See Local Competition Order*, 11 FCC Rcd at 16025.

functionality that CLECs provide to ISPs is more like a trunk-to-trunk connection than the switching functionality normally provided at end offices.[192] SBC also claims that CLECs are able to reduce the costs of delivering ISP-bound traffic by using new, less expensive switches that do not perform the functions necessary for both the origination and delivery of two-way voice traffic.[193] Similarly, GTE asserts that new technologies and system architectures make it possible for some CLECs to reduce costs by entirely avoiding circuit-switching on calls "to selected telephone numbers."[194] CLECs respond, however, that they are in fact using the same circuit switching technology used by ILECs to terminate the vast portion of Internet traffic.[195] In any event, it is not evident from any of the comments in the record that the apparent efficiencies associated with new system architectures apply exclusively to data traffic, and not to voice traffic as well. ILECs and CLECs alike are free to deploy new technologies that provide more efficient solutions to the delivery of certain types of traffic,[196] and these more efficient technologies will, over time, be reflected in cost-based reciprocal compensation rates. The overall record in this proceeding does not lead us to conclude that any system architectures or technologies widely used by LECs result in material differences between the cost of delivering ISP-bound traffic and the cost of delivering local voice traffic, and we see no reason, therefore, to distinguish between voice and ISP traffic with respect to intercarrier compensation.

94. Some CLECs take this argument one step further. Whatever the merits of bill and keep or other reforms to intercarrier compensation, they say, any such reform should be

[192] SBC Remand Comments at 33.

[193] SBC Remand Comments at 33-34 (referring, *inter alia*, to "managed modem" switches).

[194] GTE Comments at 7-8 (noting the existence of SS7 bypass devices that can avoid circuit switching and arguing that competitive LEC networks are far less complex and utilize fewer switches than incumbent LEC networks); GTE Reply Comments at 16 (compensating competitive LECs based on an incumbent LEC's costs inflates the revenue that competitive LECs receive); Letter from W. Scott Randolph, GTE, to Magalie Roman Salas, Secretary, FCC, Attachment (Dec. 8, 1999 (new generation traffic architectures may use SS7 Gateways instead of more expensive circuit-switched technology).

[195] *See, e.g.,* Letter from John D. Windhausen, Jr., ALTS, and H. Russell Frisby, Jr., CompTel, to Kyle Dixon, Legal Advisor, Chairman Michael Powell, FCC, at 4-5 (March 16, 2001)(Focal is testing two softswitches, but as of now all ISP-bound traffic terminated by Focal uses traditional circuit switches; Allegiance Telecom has a single softswitch in its network; Advanced Telecom Group, Inc. is in the testing phase of softswitch deployment; Pac-West Telecomm, Inc., does not have any softswitches in its network; e.spire uses only circuit switches to terminate ISP-bound traffic);Time Warner Remand Reply Comments, Exhibit 1, Declaration of Don J. Wood at 27 (Time Warner is "deploying fully functional end office switches"); Letter from Donald F. Shepheard, Time Warner, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC, at 3 (February 28, 2001)(Time Warner "does not provide managed modem services." Like the ILECs, Time Warner "has an extensive network of circuit switched technology" and has only just begun to deploy softswitches); Letter from Teresa Marrero, AT&T, to Magalie Roman Salas, Secretary, FCC, at 1 (April 11, 2001)("Virtually all of AT&T's ISP-bound traffic is today terminated using full circuit switches.").

[196] *See* Time Warner Remand Reply Comments, Exhibit 1, Declaration of Don J. Wood at 28; *see also* Letter from Donald F. Shepheard, Time Warner, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC, at 3 (Feb. 28, 2001)("if softswitch technology will lower carriers' costs, then all carriers, including the ILECs[,] will have incentive to deploy them"); Letter from John D. Windhausen, Jr., ALTS, and H. Russell Frisby, Jr., CompTel, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC, at 4 (February 16, 2001)(same).

undertaken only in the context of a comprehensive review of *all* intercarrier compensation regimes, including the interstate access charge regime.[197] First, we reject the notion that it is inappropriate to remedy some troubling aspects of intercarrier compensation until we are ready to solve all such problems. In the most recent of our access charge reform orders, we recognized that it is "preferable and more reasonable to take several steps in the right direction, even if incomplete, than to remain frozen" pending "a perfect, ultimate solution."[198] Moreover, it may make sense to begin reform by rationalizing intercarrier compensation between competing providers of telecommunications services, to encourage efficient entry and the development of robust competition, rather than waiting to complete reform of the interstate access charge regime that applies to incumbent LECs, which was created in a monopoly environment for quite different purposes. Second, the interim compensation scheme we adopt here is fully consistent with the course the Commission has pursued with respect to access charge reform. A primary feature of the *CALLS Order* is the phased elimination of the PICC and CCL,[199] two intercarrier payments we found to be inefficient, in favor of greater recovery from end-users through an increased SLC, an end-user charge.[200] Finally, like the *CALLS Order*, the interim regime we adopt here "provides relative certainty in the marketplace" pending further Commission action, thereby allowing carriers to develop business plans, attract capital, and make intelligent investments.[201]

D. Conclusion

95. In this Order, we strive to balance the need to rationalize an intercarrier compensation scheme that has hindered the development of efficient competition in the local exchange and exchange access markets with the need to provide a fair and reasonable transition for CLECs that have come to depend on intercarrier compensation revenues. We believe that the interim compensation regime we adopt herein responds to both concerns. The regime should reduce carriers' reliance on carrier-to-carrier payments as they recover more of their costs from end-users, while avoiding a "flash cut" to bill and keep which might upset legitimate business expectations. The interim regime also provides certainty to the industry during the time that the Commission considers broader reform of intercarrier compensation mechanisms in the *NPRM* proceeding. Finally, we hope this Order brings an end to the legal confusion resulting from the Commission's historical treatment of ISP-bound traffic, for purposes of jurisdiction and

---

[197] *See, e.g.,* Letter from Karen L. Gulick, Harris, Wiltshire & Grannis, to Magalie Roman Salas, Secretary, FCC, at 1 (Dec. 22, 2000).

[198] *See CALLS Order*, 15 FCC Rcd at 12974.

[199] The PICC, or presubscribed interexchange carrier charge, and the CCLC, carrier common line charge, are charges levied by incumbent LECs upon IXCs to recover portions of the interstate-allocated cost of subscriber loops. *See* 47 C.F.R. §§ 69.153, 69.154.

[200] *CALLS Order,* 15 FCC Rcd at 12975 (permitting a greater proportion of the local loop costs of primary residential and single-line business customers to be recovered through the SLC).

[201] *CALLS Order*, 15 FCC Rcd at 12977 (The CALLS proposal is aimed to " bring lower rates and less confusion to consumers; and create a more rational interstate rate structure. This, in turn, will support more efficient competition, more certainty for the industry, and permit more rational investment decisions.").

compensation, and the statutory obligations and classifications adopted by Congress in 1996 to promote the development of competition for all telecommunications services. We believe the analysis set forth above amply responds to the court's mandate that we explain how our conclusions regarding ISP-bound traffic fit within the governing statute.[202]

V. PROCEDURAL MATTERS

A. Final Regulatory Flexibility Analysis

96. As required by the Regulatory Flexibility Act (RFA),[203] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Declaratory Ruling and NPRM*.[204] The Commission sought and received written comments on the IRFA. The Final Regulatory Flexibility Analysis (FRFA) in this Order on Remand and Report and Order conforms to the RFA, as amended.[205] To the extent that any statement contained in this FRFA is perceived as creating ambiguity with respect to our rules, or statements made in preceding sections of this Order on Remand and Report and Order, the rules and statements set forth in those preceding sections shall be controlling.

1. Need for, and Objectives of, this Order on Remand and Report and Order

97. In the *Declaratory Ruling*, we found that we did not have an adequate record upon which to adopt a rule regarding intercarrier compensation for ISP-bound traffic, but we indicated that adoption of a rule would serve the public interest.[206] We sought comment on two alternative proposals, and stated that we might issue new rules or alter existing rules in light of the comments received.[207] Prior to the release of a decision, the Court of Appeals for the District of Columbia Circuit vacated certain provisions of the *Declaratory Ruling* and remanded the matter to the Commission.[208]

98. This Order on Remand and Report and Order addresses the concerns of various parties to this proceeding and responds to the court's remand. The Commission exercises jurisdiction over ISP-bound traffic pursuant to section 201, and establishes a three-year interim intercarrier compensation mechanism for the exchange of ISP-bound traffic that applies if

---

[202] *Bell Atlantic*, 206 F.3d at 8.

[203] *See* 5 U.S.C. § 603.

[204] *Declaratory Ruling*, 14 FCC Rcd at 3710-13.

[205] *See* 5 U.S.C. § 604. The Regulatory Flexibility Act, 5 U.S.C. § 601 *et. seq.*, was amended by the "Small Business Regulatory Enforcement Fairness Act of 1996" (SBREFA), which was enacted as Title II of the Contract With America Advancement Act of 1996, Pub.L. No. 104-121, 110 Stat. 847 (1996) (CWAAA).

[206] *Declaratory Ruling and Intercarrier Compensation NPRM*, 14 FCC Rcd at 3707.

[207] *Declaratory Ruling and Intercarrier Compensation NPRM*, 14 FCC Rcd at 3711.

[208] *See Bell Atlantic*, 206 F.3d 1.

incumbent LECs offer to exchange section 251(b)(5) traffic at the same rates. During this interim period, intercarrier compensation for ISP-bound traffic is subject to a rate cap that declines over the three-year period, from $.0015/mou to $.0007/mou. The Commission also imposes a cap on the total ISP-bound minutes for which a LEC may receive this compensation under a particular interconnection agreement equal to, on an annualized basis, the number of ISP-bound minutes for which that LEC was entitled to receive compensation during the first quarter of 2001, increased by ten percent in each of the first two years of the transition. If an incumbent LEC does not offer to exchange all section 251(b)(5) traffic subject to the rate caps set forth herein, the exchange of ISP-bound traffic will be governed by the reciprocal compensation rates approved or arbitrated by state commissions.

2. Summary of Significant Issues Raised by the Public Comments in Response to the IRFA

99. The Office of Advocacy, U.S. Small Business Administration (Office of Advocacy) submitted two filings in response to the IRFA.[209] In these filings, the Office of Advocacy raises significant issues regarding our description, in the IRFA, of small entities to which our rules will apply, and the discussion of significant alternatives considered and rejected. Specifically, the Office of Advocacy argues that the Commission has failed accurately to identify all small entities affected by the rulemaking by refusing to characterize small incumbent local exchange carriers (LECs), and failing to identify small ISPs, as small entities.[210] We note that, in the IRFA, we stated that we excluded small incumbent LECs from the definitions of "small entity" and "small business concern" because such companies are either dominant in their field of operations or are not independently owned and operated.[211] We also stated, however, that we would nonetheless, out of an abundance of caution, include small incumbent LECs in the IRFA, and did so.[212] Small incumbent LECs and other relevant small entities are included in our present analysis as described below.

100. The Office of Advocacy also states that Internet service providers (ISPs) are directly affected by our actions, and therefore should be included in our regulatory flexibility analysis. We find, however, that rates charged to ISPs are only indirectly affected by our actions. We have, nonetheless, briefly discussed the effect on ISPs in the primary text of this Order.[213]

101. Last, the Office of Advocacy also argues that the Commission has failed to adequately address significant alternatives that accomplish our stated objective and minimize any

---

[209] Office of Advocacy, U.S. Small Business Administration *ex parte*, May 27, 1999; Office of Advocacy, U.S. Small Business Administration *ex parte*, June 14, 1999.

[210] Office of Advocacy, U.S. Small Business Administration *ex parte*, May 27, 1999, at 1-3; Office of Advocacy, U.S. Small Business Administration *ex parte*, June 14, 1999, at 2-3.

[211] *Declaratory Ruling and Intercarrier Compensation NPRM*, 14 FCC Rcd at 3711.

[212] *Declaratory Ruling and Intercarrier Compensation NPRM*, 14 FCC Rcd at 3711.

[213] *See supra* paras. 87-88.

significant economic impact on small entities.[214] We note that, in the IRFA, we described the nature and effect of our proposed actions, and encouraged small entities to comment (including giving comment on possible alternatives). We also specifically sought comment on the two alternative proposals for implementing intercarrier compensation – one that resolved intercarrier compensation pursuant to the negotiation and arbitration process set forth in Section 252, and another that would have had us adopt a set of federal rules to govern such intercarrier compensation.[215] We believe, therefore, that small entities had a sufficient opportunity to comment on alternative proposals.

102. NTCA also filed comments, not directly in response to the IRFA, urging the Commission to fulfill its obligation to consider small telephone companies.[216] Some commenters also raised the issue of small entity concerns over increasing Internet traffic and the use of Extended Area Service (EAS) arrangements.[217] We are especially sensitive to the needs of rural and small LECs that handle ISP-bound traffic, but we find that the costs that LECs incur in *originating* this traffic extends beyond the scope of the present proceeding and should not dictate the appropriate approach to compensation for *delivery* of ISP-bound traffic.

3. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

103. The rules we are adopting apply to local exchange carriers. To estimate the number of small entities that would be affected by this economic impact, we first consider the statutory definition of "small entity" under the RFA. The RFA generally defines "small entity" as having the same meaning as the term "small business," "small organization," and "small governmental jurisdiction."[218] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act, unless the Commission has developed one or more definitions that are appropriate to its activities.[219] Under the Small Business Act, a "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the SBA.[220] The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be small entities when they have no more than 1,500 employees.[221]

---

[214] Office of Advocacy, U.S. Small Business Administration *ex parte*, June 14, 1999, at 3.

[215] *Declaratory Ruling [IRFA]*, 14 FCC Rcd at 3711 (para. 39); *see also Declaratory Ruling*, 14 FCC Rcd at 3707-08 (paras. 30-31).

[216] NTCA Comments at vi, 15.

[217] *See, e.g.*, ICORE Comments at 1-7; IURC Comments at 7; Richmond Telephone Company Comments at 1-8.

[218] 5 U.S.C. § 601(6).

[219] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632).

[220] 15 U.S.C. § 632.

[221] 13 C.F.R. § 121.201.

104. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its Carrier Locator report, derived from filings made in connection with the Telecommunications Relay Service (TRS).[222] According to data in the most recent report, there are 4,144 interstate carriers.[223] These carriers include, *inter alia*, incumbent local exchange carriers, competitive local exchange carriers, competitive access providers, interexchange carriers, other wireline carriers and service providers (including shared-tenant service providers and private carriers), operator service providers, pay telephone operators, providers of telephone toll service, wireless carriers and services providers, and resellers.

105. We have included small incumbent local exchange carriers (LECs) in this regulatory flexibility analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[224] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[225] We have therefore included small incumbent LECs in this regulatory flexibility analysis, although we emphasize that this action has no effect on the Commission's analyses and determinations in other, non-RFA contexts.

106. Total Number of Telephone Companies Affected. The United States Bureau of the Census (the Census Bureau) reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.[226] This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, PCS providers, covered SMR providers, and resellers. It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated."[227] For

---

[222] FCC, Carrier Locator: Interstate Service Providers, Figure 1 (Jan. 2000) (*Carrier Locator*).

[223] *Carrier Locator* at Fig. 1.

[224] 5 U.S.C. § 601(3).

[225] Office of Advocacy, U.S. Small Business Administration *ex parte*, May 27, 1999, at 1-3; Office of Advocacy, U.S. Small Business Administration *ex parte*, June 14, 1999, at 2-3. The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b). Since 1996, out of an abundance of caution, the Commission has included small incumbent LECs in its regulatory flexibility analyses. *See, e.g.*, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket, 96-98, First Report and Order, 11 FCC Rcd 15499, 16144-45 (1996).

[226] United States Department of Commerce, Bureau of the Census, 1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size, at Firm Size 1-123 (1995) (*1992 Census*).

[227] 15 U.S.C. § 632(a)(1).

example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It seems reasonable to conclude, therefore, that fewer than 3,497 telephone service firms are small entity telephone service firms or small incumbent LECs that may be affected by the decisions and rule changes adopted in this proceeding.

107. *Wireline Carriers and Service Providers.* The SBA has developed a definition of small entities for telephone communications companies other than radiotelephone companies. The Census Bureau reports that there were 2,321 such telephone companies in operation for at least one year at the end of 1992.[228] According to the SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons.[229] All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 2,295 small entity telephone communications companies other than radiotelephone companies that may be affected by the decisions and rule changes adopted in this proceeding.

108. *Local Exchange Carriers, Interexchange Carriers, Competitive Access Providers, Operator Service Providers, and Resellers.* Neither the Commission nor the SBA has developed a definition particular to small LECs, interexchange carriers (IXCs), competitive access providers (CAPs), operator service providers (OSPs), or resellers. The closest applicable definition for these carrier-types under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[230] According to our most recent TRS data, there are 1,348 incumbent LECs and 212 CAPs and competitive LECs.[231] Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of these carriers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 1,348 incumbent LECs and fewer than 212 CAPs and competitive LECs that may be affected by the decisions and rule changes adopted in this proceeding.

4. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

109. The rule we are adopting imposes direct compliance requirements on interconnected incumbent and competitive LECs, including small LECs. In order to comply with

[228] *1992 Census* at Firm Size 1-123.

[229] 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4813.

[230] 13 C.F.R. § 121.201, SIC Code 4813.

[231] *Carrier Locator* at Fig. 1.

this rule, these entities will be required to exchange their ISP-bound traffic subject to the rules we are adopting above.

5. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

110. In the *Declaratory Ruling and Intercarrier Compensation NPRM* the Commission proposed various approaches to intercarrier compensation for ISP-bound traffic.[232] During the course of this proceeding the Commission considered and rejected several alternatives.[233] None of the significant alternatives considered would appear to succeed as much as our present rule in balancing our desire to minimize any significant economic impact on relevant small entities, with our desire to deal with the undesirable incentives created under the current reciprocal compensation regime that governs the exchange of ISP-bound traffic in most instances. We also find that for small ILECs and CLECs the administrative burdens and transaction costs of intercarrier compensation will be minimized to the extent that LECs begin a transition toward recovery of costs from end-users, rather than other carriers.

111. Although a longer transition period was considered by the Commission, it was rejected because a three-year period was considered sufficient to accomplish our policy objectives with respect to all LECs.[234] Differing compliance requirements for small LECs or exemption from all or part of this rule is inconsistent with our policy goal of addressing the market distortions attributable to the prevailing intercarrier compensation mechanism for ISP-bound traffic and beginning a smooth transition to bill-and-keep.

Report to Congress: The Commission will send a copy of this Order on Remand and Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.[235] In addition, the Commission will send a copy of this Order on Remand and Report and Order, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of this Order on Remand and Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.[236]

VI. ORDERING CLAUSES

112. Accordingly, IT IS ORDERED, pursuant to Sections 1, 4(i) and (j), 201-209, 251, 252, 332, and 403 of the Communications Act, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 201-209, 251, 252, 332, and 403, and Section 553 of Title 5, United States Code, 5 U.S.C. § 553, that this Order on Remand and Report and Order and revisions to Part 51 of the Commission's

---

[232] *Declaratory Ruling*, 14 FCC Rcd at 3707-10.

[233] *See supra* paras. 67-76 (rejecting application of a reciprocal compensation mechanism to ISP-bound traffic).

[234] We note, however, that the interim regime we adopt here governs for 36 months or until further action by the Commission, *whichever is longer*.

[235] 5 U.S.C. § 801(a)(1)(A).

[236] *See* 5 U.S.C. § 604(b).

rules, 47 C.F.R. Part 51, ARE ADOPTED. This Order on Remand and Report and Order and the rule revisions adopted herein will be effective 30 days after publication in the Federal Register except that, for good cause shown, as set forth in paragraph 82 of this Order, the provision of this Order prohibiting carriers from invoking section 252(i) of the Act to opt into an existing interconnection agreement as it applies to rates paid for the exchange of ISP-bound traffic will be effective immediately upon publication of this Order in the Federal Register.

113. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this Order on Remand and Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

Appendix A
List of Commenters in CC Docket Nos. 96-98, 99-68

Comments Filed in Response to the June 23, 2000 Public Notice

Advanced TelCom Group, Inc.; e.spire Communications, Inc.; Intermedia Communications, Inc.; KMC Telecom, Inc.; Nextlink Communications, Inc.; The Competitive Telecommunications Association
Alliance for Public Technology
Association of Communications Enterprises
Association for Local Telecommunications Services
AT&T Corp. (AT&T)
BellSouth Corporation
Cablevision Lightpath, Inc.
California State and California Public Utilities Commission
Centennial Communications Corp. (Centennial)
Florida Public Service Commission
Focal Communications Corporation, Allegiance Telecom, Inc., and Adelphia Business Solutions, Inc.
General Services Administration
Global NAPs, Inc.
ICG Telecom Group, Inc.
Keep America Connected; National Association of the Deaf; National Association of Development Organizations; National Black Chamber of Commerce; New York Institute of Technology; Ocean of Know; Telecommunications for the Deaf, Inc.; United States Hispanic Chamber of Commerce
Massachusetts Department of Telecommunications & Energy
Missouri Public Service Commission
National Consumers League
National Exchange Carrier Association, Inc.
New York Department of Public Service
Pac-West Telecomm, Inc.
Pennsylvania Office of Consumer Advocate
Prism Communications Services, Inc.
Qwest Corporation
RCN Telecom Services, Inc. and Connect Communications Corporation
RNK, Inc.
Rural Independent Competitive Alliance
SBC Communications, Inc. (SBC)
Sprint Corporation (Sprint)
Texas Public Utility Commission
Time Warner Telecom Inc. (Time Warner)
United States Telecom Association
Verizon Communications (Verizon)
Western Telephone Integrated Communications, Inc.
WorldCom, Inc.

Reply Comments Filed in Response to the June 23, 2000 Public Notice

Adelphia Business Solutions, Inc.; Allegiance TeleCom, Inc., Focal Communications Corporation, and RCN Telcom Services, Inc.
AT&T Corp.
BellSouth Corporation
Cablevision Lightpath, Inc.
Cincinnati Bell Telephone Company
Commercial Internet Exchange Association
Converscent Communications, LLC
Covad Communication Company
Duckenfield, Pace
e.spire Communications, Inc., Intermedia Communications Inc., KMC Telecom, Inc., NEXTLINK Communications, Inc., The Association for Local Telecommunications Services, and The Competitive Telecommunications Association
General Services Administration
Global NAPs, Inc.
ICG Telecom Group, Inc.
Keep America Connected; National Association of Development Organizations; National Black Chamber of Commerce; New York Institute of Technology; United States Hispanic Chamber of Commerce
Pac-West Telecomm, Inc.
Prism Communications Services, Inc.
Qwest Corporation
Riter, Josephine
SBC Communications, Inc. (SBC)
Sprint Corporation
Time Warner Telecom Inc. (Time Warner)
US Internet Industry Association
United States Telecom Association
Verizon Communications (Verizon)
Western Telephone Integrated Communications, Inc.
WorldCom, Inc.

Comments Filed in Response to the February 26, 1999 Notice of Proposed Rulemaking

Airtouch Paging
America Online, Inc. (AOL)
Ameritech
Association for Local Telecommunications Services
AT&T Corp. (AT&T)
Baldwin, Jesse
Bardsley, June
Bell Atlantic Corporation
BellSouth Corporation
Cablevision Lightpath, Inc.
California Public Utilities Commission
Choice One Communications (Choice One)
Cincinnati Bell Telephone Company
Commercial Internet eXchange Association
Competitive Telecommunications Association)
Corecomm Limited
Cox Communications, Inc. (Cox)
CT Cube, Inc. & Leaco Rural Telephone Cooperative, Inc.
CTSI, Inc.
Florida Public Service Commission
Focal Communications Corporation
Frontier Corporation
General Communication, Inc.
General Services Administration
Global NAPs Inc.
GST Telecom, Inc.
GTE Services Corporation (GTE)
GVNW Consulting, Inc.
Hamilton, Dwight
ICG Communications
ICORE, Inc.
Indiana Utility Regulatory Commission
Information Technology Association of America
Intermedia Communications Inc. (Intermedia)
Keep America Connected; Federation of Hispanic Organizations of the Baltimore Metropolitan Area, Inc; Latin American Women and Supporters; League of United Latin American Citizens; Massachusetts Assistive Technology Partnership; National Association of Commissions for Women; National Association of Development Organizations; National Hispanic Council on Aging; New York Institute of Technology; Resources for Independent Living; Telecommunications Advocacy Project; The Child Health Foundation; The National Trust for the Development of African American Men; United Homeowners Association; United Seniors Health Cooperative
KMC Telecom Inc.
Lewis, Shawn
Lloyd, Kimberly, D.

MCI WorldCom, Inc.
MediaOne Group (Media One)
Miner, George
Missouri Public Service Commission
National Telephone Cooperative Association
New York State Department of Public Service
Pennsylvania Public Utility Commission
Personal Communications Industry Assoc.
Public Utility Commission of Texas
Prism Communications Services, Inc.
RCN Telecom Services, Inc.
Reinking, Jerome C.
Richmond Telephone Company
RNK Inc.
SBC Communications
Schaefer, Karl W.
Sefton, Tim
Shook, Ofelia E.
Sprint Corporation
John Staurulakis, Inc.
Telecommunications Resellers Association
Telephone Association of New England
Thomas, William J.
Time Warner Telecom Inc. (Time Warner)
United States Telephone Association
Verio Inc.
Vermont Public Service Board
Virgin Islands Telephone Corporation
Wisconsin State Telecommunications Association

Reply Comments Filed in Response to the February 26, 1999 Notice of Proposed Rulemaking

Airtouch Paging
Ameritech
Association for Local Telecommunications Services
AT&T Corp.
Bell Atlantic Corporation
BellSouth Corporation and BellSouth Telecommunications, Inc.
Competitive Telecommunications Association
Corecomm Limited (CoreComm)
Cox Communications, Inc. (Cox)
Focal Communications Corporation
General Services Administration
Global NAPs Inc.
GST Telecom Inc.
GTE Services Corporation (GTE)
GVNW Consulting, Inc.

ICG Communications, Inc
Illinois Commerce Commission
Intermedia Communications Inc.
KMC Telecom Inc.
MCI WorldCom, Inc.
National Exchange Carrier Association, Inc.
National Telephone Cooperative Association
Network Plus, Inc.
New York State Department of Public Services
Pac-West Telecomm., Inc.
Pennsylvania Public Utility Commission
Personal Communications Industry Association
Prism Communications Services, Inc.
Public Service Commission of Wisconsin
RCN Telecom Services
RNK Telecom
SBC Communications, Inc.
Sprint Corporation
Supra Telecommunications & Information Systems, Inc.
TDS Telecommunications Corporation
Time Warner Telecom
United States Telephone Association
US West Communications, Inc.
Verio Inc.
Virgin Islands Telephone Corporation
Wyoming Public Service Commission

Appendix B – Final Rules

AMENDMENTS TO THE CODE OF FEDERAL REGULATIONS

Part 51, Subpart H, of Title 47 of the Code of Federal Regulations (C.F.R.) is amended as follows:

1. The title of part 51, Subpart H, is revised to read as follows:

Subpart H--Reciprocal Compensation for Transport and Termination of Telecommunications Traffic

2. Section 51.701(b) is revised to read as follows:

(a) **§ 51.701 Scope of transport and termination pricing rules.**

*****

(b) *Telecommunications traffic.* For purposes of this subpart, telecommunications traffic means:

(1) Telecommunications traffic exchanged between a LEC and a telecommunications carrier other than a CMRS provider, except for telecommunications traffic that is interstate or intrastate exchange access, information access, or exchange services for such access (*see* FCC 01-131, paras. 34, 36, 39, 42-43); or

(2) Telecommunications traffic exchanged between a LEC and a CMRS provider that, at the beginning of the call, originates and terminates within the same Major Trading Area, as defined in § 24.202(a) of this chapter.

3. Sections 51.701(a), 51.701(c) through (e), 51.703, 51.705, 51.707, 51.709, 51.711, 51.713, 51.715, and 51.717 are each amended by striking "local" before "telecommunications traffic" each place such word appears.

SEPARATE STATEMENT OF CHAIRMAN MICHAEL K. POWELL

Re: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic (CC Docket Nos. 96-98, 99-68)

In this *Order,* we re-affirm our prior conclusion that telecommunications traffic delivered to Internet service providers (ISPs) is subject to our jurisdiction under section 201 of the Act. Thus, we reject arguments that section 251(b)(5) applies to this traffic. I firmly believe that this *Order* is supported by reasonable interpretations of statutory provisions that read together are ambiguous and, absent a reconciling interpretation, conflicting.

I also support the fact that this *Order,* for the first time, establishes a transition mechanism that will gradually wean competitive carriers from heavy reliance on the excessive reciprocal compensation charges that incumbents have been forced to pay these competitors for carrying traffic from the incumbent to the ISP. This transition mechanism was carefully crafted to balance the competing interests of incumbent and competitive telephone companies and other parties, so as not to undermine the Act's goal of promoting efficient local telephone competition.

I write separately only to emphasize a few points:

As an initial matter, I respectfully disagree with the objections to our conclusion that section 251(g) "carves out" certain categories of services that, in the absence of that provision, would likely be subject to the requirements of section 251(b)(5).[1] Section 251(b)(5)'s language first appears to be far-reaching, in that it would seem to apply, by its express terms, to all "telecommunications."[2] There is apparently no dispute, however, that at least one category of the LEC-provided telecommunications services enumerated in section 251(g) (namely, "exchange access") is not subject to section 251(b)(5), despite the broad language of this provision. Indeed, the *Bell Atlantic* Court appears to have endorsed that conclusion.[3] The question then arises whether the other categories of traffic that are enumerated in section 251(g) (including, "information access") should also be exempted from the application of section 251(b)(5). We answer this question in the affirmative, and no justification (compelling or otherwise) has been offered for why only one service – exchange access – should be afforded disparate treatment in the construction of section 251(g). I would note, moreover, that on the only other occasion in

---

[1] To be more precise, section 251(g) refers to certain categories of service *provided by LECs* to *ISPs and interexchange carriers.* 47 U.S.C. § 251(g). In this statement, I use a short-hand reference to the "categories of services" enumerated in section 251(g).

[2] 47 U.S.C. § 251(b)(5).

[3] *See cf. Bell Atl. Tel. Cos. v. FCC,* 206 F.3d 1, 4 (D.C. Cir. 2000) ("Although [section] 251(b)(5) purports to extend reciprocal compensation to all 'telecommunications,' the Commission has construed the reciprocal compensation requirement as limited to local traffic."). The Court then went on to conclude that the Commission had not provided an adequate explanation of why LECs that carry traffic to ISPs are providing "'exchange access,' rather than 'telephone exchange service.'" *Id.* at 9. The Court does not appear to have questioned anywhere in its opinion the notion that the scope of the reciprocal compensation requirement does not extend to certain categories of LEC-provided services, including "exchange access."

which the Commission directly addressed the question whether section 251(g) serves as such a "carve-out," the Commission concluded, as we do here, that it does perform that function.[4]

Nor do I find the position we adopt here irreconcilable with our decision in the *Advanced Services Remand Order.*[5] In discussing the term "information access" in that *Order,* we were not addressing the question whether section 251(g) exempts certain categories of traffic provided by LECs to ISPs and interexchange carriers from the other requirements of section 251. Rather, we addressed only the relationship between "information access" and the categories of "exchange access" and "telephone exchange service." Specifically, we "decline[d] to find that information access services are a separate category of services, distinct from, and mutually exclusive with, telephone exchange and exchange access services."[6] But under the reading of section 251(g) put forth in this *Order,* the question whether information access is distinct from these other services is irrelevant. Because information access is specifically enumerated in section 251(g), it is not subject to the requirements of section 251(b)(5), whether or not that category of service overlaps with, or is distinct from, telephone exchange service or exchange access.

Similarly, I reject the suggestion that section 251(g) *only* preserves the MFJ requirements. The language of section 251(g) specifically refers to "each local exchange carrier," not just to the Bell Operating Companies.[7] Section 251(g) also expressly refers to any "regulation, order, or policy of the Commission."[8] Such clauses support the reading of section 251(g) that we adopt today.[9]

Finally, I disagree that section 251(g) cannot be construed to exempt certain categories of traffic from the requirements of section 251(b)(5), simply because the former provision does not include the words "exclude" or "reciprocal compensation" or "telecommunications."[10] As I have said, our reading that the categories of LEC-provided services enumerated in subsection (g) are exempted from reciprocal compensation arises from our duty to give effect to both section 251(g)

---

4 *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers,* CC Dkt. Nos. 96-98, 95-185, First Report and Order, 11 FCC Rcd 15499 (1996), ¶ 1034.

5 *Deployment of Wireline Services Offering Advanced Telecommunications Capability,* CC Dkt. Nos. 98-147 et al., Order on Remand, 15 FCC Rcd 385 (1999) (*Advanced Services Remand Order*); *see also WorldCom, Inc. v. FCC,* No. 00-1002 (D.C. Cir. filed Apr. 20, 2001) (affirming *Advanced Services Remand Order* on one of the alternative grounds proffered by the Commission).

6 *Advanced Services Remand Order,* 15 FCC Rcd at 406, ¶ 46.

7 47 U.S.C. § 251(g).

8 *Id.*

9 Had the language of section 251(g) been limited to the Bell Companies or to court orders and consent decrees, for example, perhaps one could construct an argument that Congress meant to limit the scope of section 251(g) to the MFJ requirements.

10 Section 251(b)(5) states that all LECs must "establish *reciprocal compensation* arrangements for the transport and termination of *telecommunications.*" 47 U.S.C. § 251(g) (emphasis added).

and section 251(b)(5). I also would point out that section 251(g) does include a specific reference to "receipt of compensation," just as the services enumerated in that section (e.g., exchange access, information access) undeniably involve telecommunications.[11]

In closing, I would only reiterate that the statutory provisions at issue here are ambiguous and, absent a reconciling interpretation, conflicting. Thus, the Commission has struggled long and hard in an effort to give as full a meaning as possible to each of the provisions in a manner we conclude is consistent with the statutory purpose. It would not be overstating matters to acknowledge that these issues are highly complex, disputed and elusive, and that what we decide here will have enormous impact on the development of new technologies and the economy more broadly. It is for their relentless efforts to wrestle with (and now resolve) these issues that I am deeply grateful to my colleagues and our able staff.

[11] As the *Order* suggests, Section 251(g) enumerates "exchange access," "information access" and "exchange services for such access." 47 U.S.C. § 251(g). For purposes of subsection (g), all of these services are provided by LECs to "interexchange carriers and information service providers." These three categories undeniably involve telecommunications. "Information access" was defined in the MFJ as "the provision of specialized exchange *telecommunications* services" to information service providers. *United States v. AT&T,* 552 F. Supp. 131, 196, 229 (D.D.C. 1982). The term "exchange service" as used in section 251(g) is not defined in the Act or in the MFJ. Rather, the term "exchange service" is used in the MFJ as part of the definition of the term "exchange access," which the MFJ defines as "the provision of exchange services for the purposes of originating or terminating interexchange *telecommunications.*" *United States v. AT&T,* F. Supp. at 228. Thus, the term "exchange service" appears to mean, in context, the provision of services in connection with *interexchange* communications. Consistent with that, in section 251(g), the term is used as part of the longer phrase "exchange services for such [exchange] access to interexchange carriers and information service providers." All of this indicates that the term "exchange service" is closely related to the provision of exchange access and information access, and that all three involve telecommunications.

DISSENTING STATEMENT OF COMMISSIONER HAROLD FURCHTGOTT-ROTH

Re: *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Inter-Carrier Compensation for ISP-Bound Traffic*, Order on Remand and Report and Order, CC Docket Nos. 96-98, 99-68.

To some observers, the Telecommunications Act of 1996 ("1996 Act"), in general, and sections 251 and 252 (47 U.S.C. §§ 251 and 252), in particular, have become unnecessary inconveniences. The poster child for those who proclaim the 1996 Act's failure is reciprocal compensation. It has led to large billings – some paid, some unpaid – among telecommunications carriers. These billings have not shrunk, in large part because the Commission's interpretation of the pick-and-choose provision of the Act (47 U.S.C. § 252(i)) has led to unstable contracts, with perverse incentives for renegotiation.

Reciprocal compensation is an obscure and tedious topic. It is not, however, a topic that Congress overlooked. To the contrary, in describing reciprocal compensation arrangements in sections 251 and 252, Congress went into greater detail than it did for almost any other commercial relationship between carriers covered in the 1996 Act. Among other things, Congress mandated that reciprocal compensation arrangements would be:
(1) made by contract; (2) under State supervision; (3) at rates to be negotiated or arbitrated; and (4) would utilize a bill-and-keep plan only on a case-by-case basis under specific statutory conditions. *See* 47 U.S.C. §§ 251(b)(5), 252(a), 252(b), 252(d)(2).

Faced with these statutory mandates, how should the large billings for reciprocal compensation be addressed? Renegotiating contracts would be the simple market solution, only made precarious by our pick-and-choose rules. Another solution would be to seek review of reciprocal compensation agreements by State commissions. Other solutions would be for this Commission to change its pick-and-choose rules or to issue guidelines for State commission decisions (*see AT&T Corp. v. Iowa Utilities Bd.*, 525 U.S. 366, 385 (1999)).

Each of these solutions, of course, would reflect at least a modicum of respect for States, their lawmakers, their regulators, federal law, and the Congress that enacted the 1996 Act. Each would also be consistent with, and respectful of, the prior ruling on reciprocal compensation by the Court of Appeals for the D.C. Circuit. *See Bell Atlantic Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).

There is, however, one solution that is not respectful of other governmental institutions. It is a solution that places under exclusive federal jurisdiction broad expanses of telecommunications. It is a solution that does not directly solve the problem at hand. It is a solution that can be reached only through a twisted interpretation of the law and a vitiation of economic reasoning and general common sense. That solution is nationwide price regulation. That is the regrettable solution the Commission has adopted.

The Commission's decision has broad consequences for the future of telecommunications regulation. In holding that essentially all packetized communications fall within federal jurisdiction, the Commission has dramatically diminished the States' role going forward, as such

communications are fast becoming the dominant mode. Whatever the merits of this reallocation of authority, it is a reallocation that properly should be made only by Congress. It certainly should not be made, as here, by a self-serving federal agency acting unilaterally.

There is doubtlessly underway a publicity campaign by the proponents of today's action. It will spin nationwide mandatory price regulation as "deregulation." It will spin the abandonment of States and contracts as "good government."

The media might be spun by this campaign. The public might be spun. But it will be far more difficult to convince the courts that the current action is lawful.

A Flawed Order From Flawed Decisionmaking

Today's order is the product of a flawed decisionmaking process that occurs all too frequently in this agency. It goes like this. First, the Commission settles on a desired outcome, based on what it thinks is good "policy" and without giving a thought to whether that outcome is legally supportable. It then slaps together a statutory analysis. The result is an order like this one, inconsistent with the Commission's precedent and fraught with legal difficulties.

In March 2000, the Court of Appeals for the D.C. Circuit vacated the Commission's conclusion that section 251(b)(5) does not apply to calls made to Internet service providers ("ISPs"). *See Bell Atlantic*, 206 F.3d at 9. The court ruled that, among other things, the Commission had not provided a "satisfactory explanation why LECs that terminate calls to ISPs are not properly seen as 'terminating . . . local telecommunications traffic,' and why such traffic is 'exchange access' rather than 'telephone exchange service.'" *Id.*

The Commission has taken more than a year to respond to the court's remand decision. My colleagues some time ago decided on their general objective – asserting section 201(b) jurisdiction over ISP-bound traffic and permitting incumbent carriers to ramp down the payments that they make to competitive ones. The delay in producing an order is attributable to the difficulty the Commission has had in putting together a legal analysis to support this result, which is at odds with the agency's own precedent as well as the plain language of the statute.

Today, the Commission rules, once again, that section 251(b)(5) does not apply to ISP-bound traffic. In a set of convoluted arguments that sidestep the court's objections to its previous order, the Commission now says that ISP-bound traffic is "information access," which, the Commission asserts, is excluded "from the universe of 'telecommunications' referred to in section 251(b)(5)" (Order ¶¶ 23, 30) – despite the Commission's recent conclusion in another context that "information access" is not a separate category of service exempt from the requirements of section 251. *See Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order on Remand, 15 FCC Rcd 385, ¶¶ 46-49 (1999) ("*Advanced Services Remand Order*").

The result will be another round of litigation, and, in all likelihood, this issue will be back at the agency in another couple of years. In the meantime, the uncertainty that has clouded the issue of compensation for ISP-bound traffic for the last five years will continue. The Commission would act far more responsibly if it simply recognized that ISP-bound traffic comes

within section 251(b)(5). To be sure, this conclusion would mean that the Commission could not impose on these communications any rule that it makes up, as the agency believes it is permitted to do under section 201(b). Rather, the Commission would be forced to work within the confines of sections 251(b)(5) and 252(d)(2), which, among other things, grant authority to State commissions to decide on "just and reasonable" rates for reciprocal compensation. 47 U.S.C. § 252(d)(2). But the Commission surely could issue "rules to guide the state-commission judgments" regarding reciprocal compensation (*Iowa Utilities Bd.*, 525 U.S. at 385) and perhaps could even put in place the same compensation scheme it orders here. At the same time, the confusion that this order will add to the agency's already bewildering precedent on Internet-related issues would be avoided.

The Commission's Previous Order and the Court's Remand Decision

To see how far the Commission has come in its attempt to assert section 201(b) jurisdiction over ISP-bound traffic, let us briefly review the court's decision on the Commission's previous order, which receives little attention in the order released today. In its previous order, issued in February 1999, the Commission focused on the jurisdictional nature of ISP-bound traffic. *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic*, Declaratory Ruling, 14 FCC Rcd 3689 (1999) ("*Reciprocal Compensation Declaratory Ruling*"). Applying an "end-to-end" analysis, the agency concluded that calls to ISPs do not terminate at the ISP's local server, but instead continue to the "ultimate destination or destinations, specifically at a[n] Internet website that is often located in another state." *Id.* ¶ 12. Based on this jurisdictional analysis, the Commission ruled that a substantial portion of calls to ISPs are jurisdictionally interstate, and it described ISP-bound traffic as interstate "access service." *Id.* ¶¶ 17, 18. The Commission reasoned that, since reciprocal compensation is required only for the transport and termination of *local* traffic, section 251(b)(5)'s obligations did not apply to ISP-bound calls. *See id.* ¶¶ 7, 26.

1. The Court Asked the Commission Why ISPs Are Not Like Other Local Businesses

The court vacated the Commission's decision. It held that, regardless of the jurisdictional issue, the Commission had not persuasively distinguished ISPs from other businesses that use communications services to provide goods or services to their customers. *See Bell Atlantic*, 206 F.3d at 7. In the court's view, the Commission had failed to explain why "an ISP is not, for purposes of reciprocal compensation, 'simply a communications-intensive business end user selling a product to other consumer and business end-users.'" *Id.* (citation omitted).

2. The Court Asked the Commission Why Calls Do Not Terminate at ISPs

The court also questioned the Commission's conclusion that a call to an ISP did not "terminate" at the ISP. "[T]he mere fact that the ISP originates further telecommunications does not imply that the original telecommunication does not 'terminate' at the ISP." *Id.* The court concluded that, "[h]owever sound the end-to-end analysis may be for jurisdictional purposes," the Commission had failed to explain why treating these "linked telecommunications as

continuous works for purposes of reciprocal compensation." *Id.*

3. The Court Asked the Commission How Its Treatment of ISP-Bound Traffic Is Consistent with Its Treatment of Enhanced Service Providers

The court also wondered whether the Commission's treatment of ISP-bound traffic was consistent with the approach it applies to enhanced service providers ("ESPs"), which include ISPs. *See id.* at 7-8. The Commission has long exempted ESPs from the access charge system, effectively treating them as end-users of local service rather than long-distance carriers. The court observed that this agency, in the Eighth Circuit access charge litigation, had taken the position "that a call to an information service provider is really like a call to a local business that then uses the telephone to order wares to meet the need." *Id.* at 8. The court rejected as "not very compelling" the Commission's argument that the ESP exemption is consistent with the understanding that ESPs use interstate access services. *Id.*

4. The Court Asked the Commission Whether ISP-Bound Traffic is "Exchange Access" or "Telephone Exchange Service"

Finally, the court rejected the Commission's suggestion that ISPs are "users of access service." *Id.* The court noted that the statute creates two statutory categories – "telephone exchange service" and "exchange access" – and observed that on appeal, the Commission had conceded that these categories occupied the field. *Id.* If the Commission had meant to say that ISPs are users of "exchange access," wrote the court, it had "not provided a satisfactory explanation why this is the case." *Id.*

The Commission's Latest Order

Today, the Commission fails to answer any of the court's questions. Recognizing that it could not reach the desired result within the framework it used previously, the Commission offers up a completely new analysis, under which it is irrelevant whether ISP-bound traffic is "local" rather than "long-distance" or "telephone exchange service" rather than "exchange access."

In today's order, the Commission concludes that section 251(b)(5) is not limited to local traffic as it had previously maintained, but instead applies to all "telecommunications" traffic except the categories specifically enumerated in section 251(g). *See* Order ¶¶ 32, 34. The Commission concludes that ISP-bound traffic falls within one of these categories – "information access" – and is therefore exempt from section 251(b)(5). *See id.* ¶ 42. The agency wraps up with a determination that ISP-bound traffic is interstate, and it thus has jurisdiction under section 201(b) to regulate compensation for the exchange of ISP-bound traffic. *See id.* ¶¶ 52-65.

The Commission's latest attempt to solve the reciprocal compensation puzzle is no more successful than were its earlier efforts. As discussed below, its determination that ISP-bound traffic is "information access" and, hence, exempt from section 251(b)(5) is inconsistent with still-warm Commission precedent. Moreover, its interpretation of section 251(g) cannot be reconciled with the statute's plain language.

1. Today's decision is a complete reversal of the Commission's recent decision in the *Advanced Services Remand Order.* In that order, the Commission rejected an argument that xDSL traffic is exempt from the unbundling obligations of section 251(c)(3) as "information access." Among other things, the Commission found meritless the argument that section 251(g) exempts "information access" traffic from other requirements of section 251. *Id.* ¶ 47. Rather, the Commission explained, "this provision is merely a continuation of the equal access and nondiscrimination provisions of the Consent Decree until superseded by subsequent regulations of the Commission." *Id.* According to the Commission, section 251(g) "is a transitional enforcement mechanism that obligates the incumbent LECs to continue to abide by equal access and nondiscriminatory interconnection requirements of the MFJ." *Id.* The Commission thus concluded that section 251(g) was not intended to exempt xDSL traffic from section 251's other provisions. *See id.* ¶¶ 47-49.

In addition, the Commission rejected the contention that "information access" is a statutory category distinct from "telephone exchange service" and "exchange access." *See id.* ¶ 46.[1] It pointed out that "'information access' is not a defined term under the Act, and is cross-referenced in only two transitional provisions." *Id.* ¶ 47. It ultimately concluded that nothing in the Act suggests that "information access" is a category of services mutually exclusive with exchange access or telephone exchange service. *See id.* ¶ 48.

The Commission further determined that ISP-bound traffic is properly classified as "exchange access." *See id.* ¶ 35. It noted that exchange access refers to "access to telephone exchange services or facilities for the purpose of originating or terminating communications that travel outside an exchange." *Id.* ¶ 15. Applying this definition, and citing the *Reciprocal Compensation Declaratory Ruling*, the Commission reasoned that the service provided by the local exchange carrier to an ISP is ordinarily exchange access service, "because it enables the ISP to transport the communication initiated by the end-user subscriber located in one exchange to its ultimate destination in another exchange, using both the services of the local exchange carrier and in the typical case the telephone toll service of the telecommunications carrier responsible for the interexchange transport." *Id.* ¶ 35.

The *Advanced Services Remand Order* was appealed to the D.C. Circuit. *See WorldCom*, 2001 WL 395344. The Commission argued to the court in February that the term "information access" is merely "a holdover term from the MFJ, which the 1996 Act supersedes." *WorldCom, Inc. v. FCC*, Brief for Respondents at 50 (D.C. Cir. No. 00-1002). Its brief also emphasized that section 251(g) was "designed simply to establish a transition from the MFJ's equal access and nondiscrimination provisions . . . to the new obligations set out in the statute." *Id.*

Today, just two months after it made those arguments to the D.C. Circuit, the Commission reverses itself. It now says that section 251(g) exempts certain categories of traffic, including "information access," entirely from the requirements of section 251(b)(5) and that ISP-bound traffic is "information access." *See* Order ¶¶ 32, 34, 42. The Commission provides nary a

[1] This aspect of the *Advanced Services Remand Order* was remanded to the Commission by the D.C. Circuit because of its reliance on the vacated *Reciprocal Compensation Declaratory Ruling*. *See WorldCom, Inc. v. FCC*, No. 00-1062, 2001 WL 395344, *5-*6 (D.C. Cir. Apr 20, 2001).

word to explain this reversal.

Of course, the Commission's conclusions in the *Advanced Services Remand Order* that ISP-bound traffic is "exchange access" and that the term "information access" has no relevance under the 1996 Act were themselves reversals of earlier Commission positions. In the *Non-Accounting Safeguards Order*,[2] the Commission concluded, relying in part on a purported distinction between "exchange access" and "information access," that ISPs "do not use exchange access as it is defined by the Act." *Id.* ¶ 248. In that order, the Commission was faced with determining the scope of section 272(e)(2), which states that a Bell operating company ["BOC"] "shall not provide any facilities, services, or information regarding its provision of exchange access to [a BOC affiliate] unless such facilities, services, or information are made available to other providers of interLATA services in that market on the same terms and conditions." 47 U.S.C. § 272(e)(2). The Commission rejected the argument that BOCs are required to provide exchange access to ISPs, reasoning that ISPs do not use exchange access. *See Non-Accounting Safeguards Order* ¶ 248. In making that decision, the Commission relied on the language of the statute as well as the MFJ's use of the term "information access." *See id.* ¶ 248 & n. 621. As the Commission explained, its "conclusion that ISPs do not use exchange access is consistent with the MFJ, which recognized a difference between 'exchange access' and 'information access.'" *Id.* ¶ 248 n.621.

Thus, in reversing itself yet again, the Commission here follows a time-honored tradition. When it is expedient to say that ISPs use "exchange access" and that there is no such thing as "information access," that is what the Commission says. *See Advanced Service Remand Order* ¶¶ 46-48. When it is convenient to say that ISPs use the local network like local businesses, then the Commission adopts that approach. *See Access Charge Reform*, First Report and Order, 12 FCC Rcd 15982, ¶ 345 (1997). And, today, when it helps to write that ISPs use "information access," then that is what the Commission writes. The only conclusion that one can soundly draw from these decisions is that the Commission is willing to make up whatever law it can dream up to suit the situation at hand.

Nevertheless, there is one legal proposition that the Commission has, until now, consistently followed – a fact that is particularly noteworthy given the churn in the Commission's other legal principles. The Commission has consistently held that section 251(g) serves only to "preserve[] the LECs' existing equal access obligations, originally imposed by the MFJ." *Operator Communications, Inc., D/B/A Oncor Communications*, Memorandum Opinion and Order, 14 FCC Rcd 12506, ¶ 2 n.5 (1999).[3] Today's order ignores this precedent and transforms

[2] *Implementation of the Non-Accounting Safeguards Of Sections 271 and 272 of the Communications Act of 1934, as Amended*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905 (1996) ("*Non-Accounting Safeguards Order*").

[3] *See also, e.g., Application for Review and Petition for Reconsideration or Clarification of Declaratory Ruling Regarding U S West Petitions To Consolidate Latas in Minnesota and Arizona*, Memorandum Opinion and Order, 14 FCC Rcd 14392, ¶ 17 (1999) ("In section 251(g), Congress delegated to the Commission sole authority to administer the 'equal access and nondiscriminatory interconnection restrictions and obligations' that applied under the AT&T Consent Decree."); *AT&T Corporation, et al., Complainants*, Memorandum Opinion and Order, 13 FCC Rcd 21438, ¶ 5 (1998) ("Separately, section 251(g) requires the BOCs, both pre- and post-entry, to treat all interexchange carriers in accordance with their preexisting equal access and nondiscrimination obligations, and (continued....)

section 251(g) into a categorical exemption for certain traffic from section 251(b)(5). It is this transformation – much more than the shell game played with "information access" and "exchange access" – that is most offensive in today's decision.

2. The Commission's claim that section 251(g) "excludes several enumerated categories of traffic from the universe of 'telecommunications' referred to in section 251(b)(5)" (Order ¶ 23) stretches the meaning of section 251(g) past the breaking point. Among other things, that provision does not even mention "exclud[ing]," "telecommunications," "section 251(b)(5)," or "reciprocal compensation."

Section 251(g), which is entitled, "Continued enforcement of exchange access and interconnection requirements," states in relevant part:

> On and after February 8, 1996, each local exchange carrier, to the extent that it provides wireline services, shall provide exchange access, information access, and exchange services for such access to interexchange carriers and information service providers in accordance with the same equal access and nondiscriminatory interconnection restrictions and obligations (including receipt of compensation) that apply to such carrier on the date immediately preceding February 8, 1996 under any court order, consent decree, or regulation, order, or policy of the Commission, until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission after February 8, 1996.

47 U.S.C. § 251(g).

As an initial matter, it is plain from reading this language that section 251(g) has absolutely no application to the vast majority of local exchange carriers, including those most affected by today's order. The provision states that "each local exchange carrier . . . shall provide [the enumerated services] . . . in accordance with the same equal access and nondiscriminatory interconnection restrictions and obligations . . . *that apply to such carrier on the date immediately preceding February 8, 1996.*" *Id.* (emphasis added). If a carrier was not providing service on February 7, 1996, no restrictions or obligations applied to "such carrier" on that date, and section 251(g) would appear to have no impact on that carrier. The Commission has thus repeatedly stated that section 251(g) applies to "Bell Operating Companies" and is intended to incorporate aspects of the MFJ. *Applications For Consent To The Transfer Of Control Of Licenses And Section 214 Authorizations From Tele-Communications, Inc., Transferor To AT&T Corp., Transferee.*, Memorandum Opinion and Order, 14 FCC Rcd 3160, ¶ 53 (1999); *see also* cases cited *supra* note 3. Accordingly, by its express terms, section 251(g) says nothing about the obligations of most CLECs serving ISPs, which are the primary focus of the Commission's order.

Moreover, it is inconceivable that section 251(g)'s preservation of pre-1996 Act "equal access and nondiscriminatory interconnection restrictions and obligations" is intended to displace

(Continued from previous page)

thereby neutralize the potential anticompetitive impact they could have on the long distance market until such time as the Commission finds it reasonable to revise or eliminate those obligations.").

section 251(b)(5)'s explicit compensation scheme for local carriers transporting and terminating each other's traffic. Prior to passage of the 1996 Act, there were no rules governing compensation for such services, whether or not an ISP was involved. It seems unlikely, at best, that Congress intended the absence of a compensation scheme to preempt a provision explicitly providing for such compensation.[4] At the very least, one would think Congress would use language more explicit than that seized upon by the Commission in section 251(g).

Finally, if, as the Commission maintains, section 251(g) "excludes several enumerated categories of traffic from the universe of 'telecommunications' referred to in section 251(b)(5)" (Order ¶ 23), why does section 251(g) not also exclude this traffic from the "universe of 'telecommunications'" referred to in the rest of section 251, or, indeed, in the entire 1996 Act? As noted, section 251(g) nowhere mentions "reciprocal compensation" or even "section 251." In fact, there appears to be no limiting principle. It would thus seem that, under the Commission's interpretation, the traffic referred to in section 251(g) is exempt from far more than reciprocal compensation – a consequence the Commission is sure to regret. *See, e.g., Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, First Report and Order 11 FCC Rcd 15499, ¶ 356 (1996) (concluding that "exchange access" provided to IXCs is subject to the unbundling requirements of section 251(c)(3)).

* * *

The end result of today's decision is clear. There will be continued litigation over the status of ISP-bound traffic, prolonging the uncertainty that has plagued this issue for years. At the same time, the Commission will be forced to reverse itself yet again, as soon as it dislikes the implication of treating ISP-bound traffic as "information access" or reading section 251(g) as a categorical exemption from other requirements of the 1996 Act. The Commission could, and should, have avoided these consequences by applying its original analysis in the manner sought by the court.

[4] The case of IXC traffic is thus completely different. There was a compensation scheme in effect for such traffic prior to enactment of the 1996 Act – the access charge regime. Because reciprocal compensation and the access charge regime could not both apply to the same traffic, the Commission could reasonably conclude that the access charge regime should trump the reciprocal compensation provision of section 251(b)(5). *See Competitive Telecommunications Ass'n v. FCC*, 117 F.3d 1068, 1072-73 (8th Cir. 1997). Here, there is no pre-1996 Act compensation scheme to conflict with reciprocal compensation. As the Commission has stated, "the Commission has never applied either the ESP exemption or its rules regarding the joint provision of access to the situation where two carriers collaborate to deliver traffic to an ISP." *Reciprocal Compensation Declaratory Ruling* ¶ 26.

ORIGINAL

EX PARTE OR LATE FILED

ride the light

Qwest

Qwest
1020 Nineteenth Street NW, Suite 700
Washington, DC 20036
Phone 202.429.3120
Facsimile 202.296.5157

Melissa E. Newman
Vice President-Federal Regulatory

Ex Parte

RECEIVED

OCT 5 2000

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

October 5, 2000

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: CC Docket Nos. 96-98 and 99-68
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic

Dear Ms. Salas:

On September 29, 2000, Robert B. McKenna and the undersigned representing Qwest Corporation[1] met with Federal Communications Commission ("FCC") members Tamara Preiss of the Competitive Pricing Division, Jonathan Nuechterlein, Laurence Bourne, Paula Silberthau and Debra Weiner of the Office of General Counsel. The purpose of the meeting was to discuss ISP Reciprocal Compensation issues in light of the Court's decision in Bell Atlantic v. FCC.[2] The attached document provides information concerning the specific issues discussed.

Sincerely,

Melissa E. Newman

EXHIBIT
L13
9/9/05 LB

Attachment

---

[1] On June 30, 2000, U S WEST, Inc., the parent and sole shareholder of U S WEST Communications, Inc., merged with and into Qwest Communications International Inc. Further, on July 6, 2000, U S WEST Communications, Inc. was renamed Qwest Corporation.

[2] In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic, 14 FCC Rcd. 3689; vacated and remanded sub nom. Bell Atlantic Telephone Companies v. FCC, 206 F. 3d. 1 (D.C. Cir.) (2000) mandate issued May 17, 2000.

L13

ISP RECIPROCAL COMPENSATION

1. In light of the Bell Atlantic decision, it remains reasonable and lawful for the Commission to rely on the fact that an Internet call does not terminate for jurisdictional purposes in determining that reciprocal compensation is not warranted.

- The analysis is supported by dozens of cases recited in the comments of Qwest and others in the docket on remand.

- The bottom line is that a call from an end user customer to an Internet Web site does not "terminate" with the ISP which establishes the Internet connection. As the FCC recognized in its Declaratory Ruling, the fact that termination does not occur removes the connection between the two LECs from the reciprocal compensation provisions of Section 251(b)(5).

- The error in the Declaratory Ruling was simply that the Commission, having properly determined that a call between an end user and an Internet Web site was jurisdictionally interstate, assumed that this proper analysis automatically answered the question of whether reciprocal compensation was warranted.

  - Just because a call is jurisdictionally interstate does not automatically mean that it is not terminated for purposes of Section 251(b)(5). The Court found that more analysis was necessary.
  - The additional research, which has been submitted on the record, documents that the Commission's conclusion was correct in the Declaratory Ruling—not that the reasoning was correct.

- While the legal arguments here can become complex and convoluted, the basic analysis is simple: when an end user customer calls an ISP, it is not because he or she wants to talk to the ISP. It is because the end user desires connectivity to the Internet and to the Web sites and other computers, which can be reached through the Internet.

2. The Commission has properly found that the "termination" language in the Act means that reciprocal compensation under Section 251(b)(5) applies only to local traffic.

- Interstate carrier traffic is not terminated.

- Interstate telecommunications traffic, which is not carrier traffic, is also not terminated.

3. Since Section 251(b)(5) does not apply to traffic delivered through a CLEC into the Internet for termination, another model must be applied.

- Most logical is the access charge model. Two LECs collaborating to provide access to an IXC work under a structure, which permits both to recover their respective costs.

- A "bill and keep" model serves the same purpose—each LEC recovers its costs from its own customer.

4. Any model, at least so long as the Commission and state regulators continue to regulate LEC-to-LEC connection prices, must be predicated on economic reality and sound economic principles.

- CLECs supporting the reciprocal compensation scheme predicate their argument on an economic position, which is fundamentally flawed.

- They contend that reciprocal compensation in an ISP context is simply a matter of a LEC terminating a call on behalf of another LEC, thereby performing a service on behalf of the "originating LEC" which merits compensation.

- As a matter of straightforward economics, this argument misstates the nature of relationship between the ISP and the end user customer.

  - Unlike most telephony transactions, the ISP sells a distinct service to the end user customer which itself incorporates the path between the Internet (and the accessed Web sites) and the end user customer as part of the service.
  - The normal LEC-to-LEC transaction involves joint interconnection of two parties within a single exchange—the end user initiating the call desiring to connect to a customer served by another LEC.
  - This is not the case when an end user desires to conduct business with another party using the facilities of the two LECs as an input to the business transaction—as is the case in connections to both IXCs and ISPs.
  - The actual cost causer in the ISP transaction is the business relationship between the ISP and the end user customer—who is really the customer of the ISP in the transaction.
  - To view the "originating" LEC as causing costs to be imposed on the "terminating" LEC is to fundamentally misunderstand the economics of the transaction.
  - It is this reality which caused the Arizona and Colorado Commissions to deny reciprocal compensation in ISP transaction involving multiple LECs.

- Dr. William Taylor's analysis sets out the economics of the transaction with precision. This analysis was filed with the Commission by way of ex parte presentation on December 2, 1999.

5. The Commission does not need to address the issue of whether it can lawfully terminate or modify existing interconnection agreements to account for the new reciprocal compensation rules.

- In the case of Qwest in its position as an ILEC, each interconnection agreement contains a change of law provision, which would enable Qwest, and the contracting CLEC to deal with the new legal interpretation which is necessary in this proceeding.

- We agree that it would be very unwise, and quite possibly ultra vires, for the Commission to actually attempt to modify existing agreements by force majeure. Contracts, which are illegal, can clearly be voided, and contracts which were imposed by regulators with provisions which were beyond the power of the regulator to impose can be dealt with through the regulatory process, as can contracts which obtained a particular provision through the "pick and choose" rules. But contracts which have been freely negotiated to include reciprocal compensation provisions, which could not be imposed, should be allowed to continue unless very strong reasons to the contrary appear.

- The Commission should make clear, however, that additional reciprocal compensation agreements cannot be obtained through the "pick and choose" rules.

6. It has been suggested (e.g., AT&T) that the limitation of reciprocal compensation to local traffic be removed, and that reciprocal compensation be paid on all originating traffic. At least in the interim, AT&T posits that this approach could differentiate between access (carrier) non-local traffic and non-access (ISP) non-local traffic in a manner which permitted the continuation of the existing access charge regime.

- As a legal matter, ILECs and others have been trying for years to eliminate the unwarranted differentiation between the charges for interstate ISP access and the charges for carrier access. While thus far these differences have been upheld by courts, it would be extremely unwise to expand them. It should be assumed that elimination of the "local" requirement to qualify for reciprocal compensation under Section 251(b)(5) would by necessity implicate switched access as well.

- Moreover, as the technologies which drive information services and those which drive telecommunications services continue to converge (e.g., IP voice), the danger of creating a legally untenable discrimination will continue to grow.

7. If a "two call" approach to Internet-bound traffic were to be used, the analysis would lead to a conclusion that more than two calls were involved because of the nature of Internet transmissions. A proper "two call" analysis would lead directly to a "bill and keep" structure.

- Currently an Internet call is treated as a call which follows the originating nature of the initial circuit connection to the Internet. That is, there is a single call between the

end user and the ultimate Internet destination (e.g., a Web site), which includes the return path.

- However, if the technological breaks in the transmission which are relied on by proponents of ISP reciprocal compensation are considered relevant, it must be remembered that the break between the circuit protocol and the IP protocol is not the only transformation of the communication during the end-to-end communication.

- For example, the IP protocol does not establish a circuit as that term is understood in the circuit world. The virtual circuit which is established relies on the addressing information in the packets themselves.

- This means that, if a separate call is deemed to have been originated at the ISP into the Internet towards the Web site which is the customer's designated termination point, by the same analysis a separate call is intimated by the Web site back in the direction of the ISP and the customer. The "return path" of the call is totally unrelated to the entry path. It is really a second call, or at least would be if the fiction on which the "two call" theory rests is accepted.

- This would, of course, result in yet a fourth call, from the ISP to the end user. In this call the CLEC which was the "terminating" LEC for the origination of the call would now be the "originating" LEC for the return call. Reciprocal compensation under this structure would balance itself out into an automatic bill and keep scenario.

- This fiction is, of course, unnecessary, because the call itself is a single communication, which does not terminate except between the two end points of the call—the end user on the one side and the Web site on the other.

C

CODE OF FEDERAL REGULATIONS
TITLE 47--TELECOMMUNICATION
CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION
SUBCHAPTER B--COMMON CARRIER SERVICES
PART 51--INTERCONNECTION
SUBPART H--RECIPROCAL COMPENSATION FOR TRANSPORT AND TERMINATION OF TELECOMMUNICATIONS TRAFFIC
Current through August 9, 2004; 69 FR 48165

§ 51.701 Scope of transport and termination pricing rules.

(a) The provisions of this subpart apply to reciprocal compensation for transport and termination of telecommunications traffic between LECs and other telecommunications carriers.

(b) Telecommunications traffic. For purposes of this subpart, telecommunications traffic means:

(1) Telecommunications traffic exchanged between a LEC and a telecommunications carrier other than a CMRS provider, except for telecommunications traffic that is interstate or intrastate exchange access, information access, or exchange services for such access (see FCC 01-131, paragraphs 34, 36, 39, 42-43); or

(2) Telecommunications traffic exchanged between a LEC and a CMRS provider that, at the beginning of the call, originates and terminates within the same Major Trading Area, as defined in § 24.202(a) of this chapter.

(c) Transport. For purposes of this subpart, transport is the transmission and any necessary tandem switching of telecommunications traffic subject to section 251(b)(5) of the Act from the interconnection point between the two carriers to the terminating carrier's end office switch that directly serves the called party, or equivalent facility provided by a carrier other than an incumbent LEC.

(d) Termination. For purposes of this subpart, termination is the switching of telecommunications traffic at the terminating carrier's end office switch, or equivalent facility, and delivery of such traffic to the called party's premises.

(e) Reciprocal compensation. For purposes of this subpart, a reciprocal compensation arrangement between two carriers is one in which each of the two carriers receives compensation from the other carrier for the transport and termination on each carrier's network facilities of telecommunications traffic that originates on the network facilities of the other carrier.

[66 FR 26806, May 15, 2001]

<General Materials (GM) - References, Annotations, or Tables>

47 C. F. R. § 51.701

47 CFR § 51.701

END OF DOCUMENT

Copr. © West 2004 No Claim to Orig. U.S. Govt. Works

EXHIBIT
L14
LB 9/9/05
Admitted

Before the
Federal Communications Commission
Washington, D.C. 20554

Petition of Core Communications, Inc. for Forbearance Under 47 U.S.C. § 160(c) from Application of the *ISP Remand Order*	)))	WC Docket No. 03-171

ORDER

Adopted: October 8, 2004 **Released:** October 18, 2004

By the Commission: Commissioner Adelstein approving in part, dissenting in part, and issuing a statement.

I. INTRODUCTION

1. In this order, we address a petition filed by Core Communications, Inc. (Core)[1] requesting that the Commission forbear from enforcing the provisions of the *ISP Remand Order.*[2] For the reasons set forth below, we deny the petition with respect to rate caps and the mirroring rule, and grant forbearance with respect to the growth caps and new markets rule.[3]

II. BACKGROUND

a. Intercarrier Compensation NPRM

2. On April 27, 2001, the Commission released a Notice of Proposed Rulemaking beginning a fundamental re-examination of all currently regulated forms of intercarrier compensation.[4]

---

[1] *See Petition of Core Communications, Inc. for Forbearance Under 47 U.S.C. § 160(c) from Application of the ISP Remand Order*, WC Docket No. 03-171, Petition of Core Communications, Inc. (filed July 14, 2003) (Core Forbearance Petition). On June 22, 2004, the Commission extended by 90 days, to October 11, 2004, the date by which the petition requesting forbearance shall be deemed granted in the absence of a Commission decision. *See Petition of Core Communications, Inc. for Forbearance Under 47 U.S.C. § 160(c) from Application of the ISP Remand Order*, WC Docket No. 03-171, Order, DA 04-1764, at 2 (rel. June 23, 2004).

[2] *Intercarrier Compensation for ISP-Bound Traffic*, CC Docket No. 99-68, Order on Remand and Report and Order, 16 FCC Rcd 9151 (2001) *(ISP Remand Order), remanded, WorldCom v. FCC*, 288 F.3d 429 (D.C. Cir. 2002), *cert. denied*, 538 U.S. 1012 (2003). Although the court rejected the legal authority upon which the Commission based its rules, the court did not vacate the *ISP Remand Order*. Accordingly, the interim rules adopted in the *ISP Remand Order* remain in effect.

[3] *See infra* paras. 6-9.

[4] *See In the Matter of Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, 16 FCC Rcd 9610 (2001) (*Intercarrier Compensation NPRM*).

EXHIBIT
L15
LB 9/9/05 admitted

The Commission recognized the need to re-evaluate the existing intercarrier compensation regimes in light of increasing competition and new technologies, such as Internet and Internet-based services.[5] The Commission was particularly interested in identifying a unified approach to intercarrier compensation that would apply to all types of traffic and to interconnection arrangements between all types of carriers.[6] It identified a number of problems with the current intercarrier compensation regimes which potentially could be solved by adopting a bill-and-keep regime or some other unified approach to intercarrier compensation.[7]

3. In response to the *Intercarrier Compensation NPRM*, the Commission received extensive comment from individual carriers and economists, industry groups and associations, consumer advocates, and state regulatory commissions, among others.[8] In addition, the Commission received numerous *ex parte* filings and detailed presentations from interested parties. In parallel with the Commission's consideration of these issues, industry-wide negotiations have taken place over the last year that have resulted in four separate proposals for comprehensive reform of the intercarrier compensation regime.[9] The Commission plans to move forward expeditiously in consideration of these new proposals.

b. ISP Remand Order

4. Concurrent with the *Intercarrier Compensation NPRM,* the Commission released the *ISP Remand Order*. In that order, it concluded that traffic bound for Internet Service Providers (ISPs) is not subject to the reciprocal compensation requirements of section 251(b)(5).[10] The Commission concluded that ISP-bound traffic is "information access" and, therefore, is "carved out" of the scope of section 251(b)(5) by section 251(g), which preserves certain pre-Act equal access and interconnection arrangements, including compensation obligations.[11] It also affirmed its prior finding that ISP-bound

---

[5] *Intercarrier Compensation NPRM,* 16 FCC Rcd at 9611-12, para. 2.

[6] *Intercarrier Compensation NPRM,* 16 FCC Rcd at 9611-12, para. 2.

[7] *Id.* at 9612, para. 2.

[8] The Commission received more than 750 submissions, including more than 250 formal comments and reply comments.

[9] For example, the Intercarrier Compensation Forum, a coalition of nine local and long-distance phone companies including AT&T, MCI, Sprint, SBC, Level 3, Global Crossing, GCI, Iowa Telecom, and Valor, recently proposed a multiyear intercarrier compensation reform plan and universal service plan. *See* Letter from Gary Epstein, Counsel for the Intercarrier Compensation Forum, to Marlene Dortch, Secretary, FCC, CC Docket No. 01-92 (filed Aug. 16, 2004). *See also* Letter from Michael W. Young, Counsel for the Cost-Based Intercarrier Compensation Coalition, to Marlene Dortch, Secretary, FCC, CC Docket No. 01-92 (filed May 14, 2004) (proposing a single cost-based compensation rate based on the total element long-run incremental cost methodology); Letter from Ken Pfister, Great Plains Communications, to Marlene Dortch, Secretary, FCC, CC Docket Nos. 01-92 and 04-28 (filed June 9, 2004) (proposing a unified rate plan based on embedded costs); and Letter from Glenn H. Brown, Expanded Portland Group, to Marlene Dortch, Secretary, FCC, CC Docket No. 01-92 (filed May 12, 2004) (proposing a unified capacity-based compensation plan).

[10] *ISP Remand Order*, 16 FCC Rcd at 9171-72, para. 44.

[11] *ISP Remand Order*, 16 FCC Rcd at 9175, para. 52; *see also* 47 U.S.C. § 251(g).

traffic is jurisdictionally interstate and thus subject to the Commission's section 201 jurisdiction.[12]

5. In the *ISP Remand Order*, the Commission discussed at length the market distortions and regulatory arbitrage opportunities created by the application of per-minute reciprocal compensation rates to ISP-bound traffic.[13] The Commission found that the availability of reciprocal compensation for this type of traffic undermined the operation of competitive markets because competitive LECs were able to recover a disproportionate share of their costs from other carriers, thereby distorting the price signals sent to their ISP customers.[14] It concluded that a bill-and-keep regime might eliminate incentives for arbitrage and force carriers to look to their own customers for cost recovery.[15] To avoid a flash cut to bill-and-keep, however, the Commission adopted an interim compensation regime pending completion of the *Intercarrier Compensation NPRM* proceeding.[16]

6. *Rate Caps.* The interim regime adopted by the Commission consisted of a gradually declining cap on intercarrier compensation for ISP-bound traffic, beginning at $.0015 per minute-of-use and declining to $.0007 per minute-of-use.[17] These rate caps reflected the downward trend in intercarrier compensation rates contained in recently negotiated interconnection agreements.[18] The rate caps limited only what carriers could recover from other carriers; carriers remained free to recover any additional costs from their ISP customers. Because the interim rates were *caps* on intercarrier compensation, the Commission determined that, to the extent the states had already set rates below the caps or imposed bill-and-keep for ISP-bound traffic (or otherwise had not required payment of compensation for this traffic), the lower rates would continue to apply.

7. *Growth Caps.* In addition to reducing the intercarrier compensation rates, the Commission also imposed a cap on total ISP-bound minutes for which a LEC may receive this compensation equal to the total ISP-bound minutes for which the LEC was previously entitled to compensation, plus a 10 percent growth factor.[19] These "growth caps" were based on projections of the growth of dial-up Internet access for the first two years of the transition and were considered necessary to ensure that such growth would not undermine the Commission's goal of addressing the market distortions attributable to the prevailing intercarrier compensation mechanism for ISP-bound traffic.[20]

8. *Mirroring Rule.* The Commission also determined that the rate caps for ISP-bound

---

[12] *ISP Remand Order*, 16 FCC Rcd at 9175, para. 52.

[13] *ISP Remand Order*, 16 FCC Rcd at 9181-86, paras. 67-76.

[14] *ISP Remand Order*, 16 FCC Rcd at 9183, para. 71.

[15] *ISP Remand Order*, 16 FCC Rcd at 9184-85, paras. 74-75.

[16] This interim regime altered only intercarrier compensation rates; it did not alter carriers' other obligations under the Commission's Part 51 rules or existing interconnection agreements. *ISP Remand Order,* 16 FCC Rcd at 9187, para. 78, n.149.

[17] *ISP Remand Order*, 16 FCC Rcd at 9187, para. 78.

[18] *ISP Remand Order*, 16 FCC Rcd at 9190-91, para. 85.

[19] *ISP Remand Order*, 16 FCC Rcd at 9191, para. 86.

[20] *ISP Remand Order*, 16 FCC Rcd at 9191, para. 86.

traffic (or such lower rates as had been imposed by state commissions for the exchange of ISP-bound traffic) should apply only if an incumbent LEC offered to exchange all traffic subject to section 251(b)(5) at the same rates.[21] If a LEC did not offer to exchange section 251(b)(5) traffic at the rates set forth in the *ISP Remand Order*, it was required to exchange ISP-bound traffic at the state-approved or state-arbitrated reciprocal compensation rates. The Commission adopted this "mirroring" rule to ensure that incumbent LECs paid the same rates for ISP-bound traffic that they received for section 251(b)(5) traffic.

9. *New Markets Rule.* Finally, the Commission concluded that different interim intercarrier compensation rules should apply if two carriers were not exchanging traffic pursuant to an interconnection agreement prior to the adoption of the *ISP Remand Order.*[22] In this situation, if an incumbent LEC has opted into the federal rate caps for ISP-bound traffic, the two carriers must exchange this traffic on a bill-and-keep basis during the interim period (the "new markets" rule).[23] This rule applies, for example, when a new carrier enters a market or an existing carrier expands into a market it previously had not served. The Commission implemented this rule in order to confine the opportunities for regulatory arbitrage to the maximum extent while seeking an appropriate long-term resolution for the problems associated with the existing intercarrier compensation regime.[24]

10. On May 3, 2002, the United States Court of Appeals for the District of Columbia Circuit found that the Commission had not provided an adequate legal basis for the rules it adopted in the *ISP Remand Order.*[25] Although the court rejected the legal rationale for the interim compensation rules, the court remanded, but did not vacate, the *ISP Remand Order* to the Commission, observing that there may be other legal bases for adopting the rules.[26] Accordingly, the interim rules adopted in the *ISP Remand Order* remain in effect while the court remand is under review.

c. Core Forbearance Petition

11. Core filed a petition on July 14, 2003, requesting that the Commission forbear from enforcing the provisions of the *ISP Remand Order* with respect to the exchange of ISP-bound traffic between telecommunications carriers.[27] More specifically, Core asks the Commission to forbear from applying the rate caps, growth caps, new markets rule, and mirroring rule of the *ISP Remand Order.*[28]

12. Core contends that the rules promulgated under the *ISP Remand Order* are

---

[21] *ISP Remand Order*, 16 FCC Rcd at 9193-94, para. 89.

[22] *ISP Remand Order,* 16 FCC Rcd at 9188-89, para. 81.

[23] *ISP Remand Order,* 16 FCC Rcd at 9188-89, para. 81.

[24] *ISP Remand Order,* 16 FCC Rcd at 9188-89, para. 81.

[25] *WorldCom v. FCC*, 288 F.3d 429 (D.C. Cir. 2002). Specifically, the court stated that section 251(g) of the Act does not provide a basis for the Commission's decision to create an exception to the reciprocal compensation requirements of the Act for calls made to ISPs located within the caller's local calling area. *Id.* at 434.

[26] *WorldCom v. FCC*, 288 F.3d at 434.

[27] Core Forbearance Petition at 1.

[28] *Id.* at 6-7; Core Reply at 5.

unsustainable for several reasons. It claims that the D.C. Circuit remand decision calls into question the legality of the rules promulgated under the *ISP Remand Order.*[29] Core also claims that the rules discriminate against new entrants.[30] Core further contends that the *ISP Remand Order* has discouraged investment by telecommunications companies.[31] Finally, Core argues that the Commission should forbear from applying the *ISP Remand Order,* because the rules are not necessary to prevent harm to consumers or to protect carriers from anticompetitive harm, and because forbearance is in the public interest.[32]

13. A number of incumbent LECs oppose the petition.[33] In general, they argue that Core has not met the statutory criteria for forbearance, and they accuse Core of wanting to preserve a business plan dependent on regulatory arbitrage.[34] BellSouth states that Core offers no substantiated evidence to meet the statutory criteria for forbearance.[35] Qwest argues that consumers and the rest of the telecommunications industry should not be subject to harm simply because competitive LECs such as Core based their business plans on regulatory arbitrage.[36] SBC contends that Core's forbearance request would undermine the goals of a more rational cost recovery mechanism and reducing the market-distorting effects of reciprocal compensation for ISP-bound traffic.[37] Verizon argues that Core has no interest in being a "real local service provider," and that Core's assertions without any attempted proof are irrelevant to a forbearance analysis.[38]

14. A variety of parties filed comments supporting the petition. The West Virginia PSC Consumer Advocate Division argues that the statutory criteria for forbearance have been met, and it complains that the intercarrier compensation mechanism in place is based on an invalid assertion of jurisdiction.[39] MCI and TelNet also argue that the current rules have no basis in law, and that a bill and keep compensation regime is discriminatory and unfair with respect to ISP-bound traffic.[40] Xspedius contends that the Bell Operating Companies (BOCs) have not lived up to their obligations under the *ISP*

---

[29] Core Forbearance Petition at 3-4.

[30] Core Forbearance Petition at 4-6.

[31] Core Forbearance Petition at 6-9.

[32] Core Forbearance Petition at 9-11.

[33] A list of parties filing comments or oppositions in this docket is attached as Appendix A.

[34] *See* BellSouth Opposition at 3-4, 9-13; Qwest Opposition at 11-14; SBC Opposition at 3-5; Verizon Opposition at 2-4.

[35] Bellsouth Opposition at 4.

[36] Qwest Opposition at 12.

[37] SBC Opposition at 3.

[38] Verizon Opposition at 2-4.

[39] West Virginia PSC Consumer Advocate Division Comments at 3-20.

[40] MCI Comments at 2-3; TelNet Comments at 1-2.

Remand Order.[41]

III. DISCUSSION

15. For the Commission to grant the forbearance requested by Core, we must determine that the three conditions set forth in section 10 of the Act are satisfied. In particular, section 10(a) provides that:

> The Commission shall forbear from applying any regulation or any provision of this Act to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services, in any or some of its or their geographic markets, if the Commission determines that –
>
> (1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable, and are not unjustly or unreasonably discriminatory;
>
> (2) enforcement of such regulation or provision is not necessary for the protection of consumers; and
>
> (3) forbearance from applying such provision or regulation is consistent with the public interest.[42]

We note that Core's petition would be denied if any one of these prongs is not met. For the reasons explained below, we find that none of the three prongs is satisfied with respect to the rate caps and mirroring rule, but that all three prongs are met with respect to the growth caps and new markets rule.

A. Public Interest

16. Core has provided only a cursory analysis of how each of the three criteria is satisfied. Core's primary argument is that the rules discriminate against competitive LECs in favor of BOCs. Core contends that the *ISP Remand Order* "has no basis in law and discriminates against and among competitive LECs in favor of the BOCs in a manner that is wholly inconsistent with the policy goals of the Act."[43] Core also asserts, without support, that these rules "have deterred investment in the telecommunications business, and have thereby substantially harmed the competitive telecommunications

[41] Xspedius Comments at 1-3. Xspedius contends that the BOCs have refused to pay the proper amount of money due for intercarrier compensation, forcing Xspedius to engage in protracted negotiations. *Id.*

[42] 47 U.S.C. § 160(a). With regard to the public interest determination required by section 10(a)(3), section 10(b) requires the Commission to "consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions, including the extent to which such forbearance will enhance competition among providers of telecommunications services." 47 U.S.C. § 160(b). Furthermore, "[i]f the Commission determines that such forbearance will promote competition among providers of telecommunications services, that determination may be the basis for a Commission finding that forbearance is in the public interest." *Id.*

[43] Core Forbearance Petition at 2-3. According to Core, "the anticompetitive impact of the *ISP Remand Order* has dealt a crushing blow to CLECs, the telecommunications industry, and the broader national economy." *Id.* at 3.

industry and the broader national economy."[44] Core complains that the mirroring rule is unfair, asserting that it allows BOCs to determine unilaterally the intercarrier compensation rates applicable to ISP-bound traffic.[45] We find that all of these arguments are properly considered under the third prong of the forbearance analysis, which requires the Commission to consider whether forbearance is consistent with the public interest, and whether forbearance would "promote competitive market conditions."[46] For the reasons described below, we find that Core's arguments do not satisfy the requirements of section 10(a)(3). As explained below, we do find, on other grounds, that section 10(a)(3) has been met with respect to the growth caps and the new markets rules.

17. As an initial matter, we reject Core's argument that the *WorldCom* decision somehow compels us to grant the requested forbearance.[47] The court remanded but did not vacate the rules adopted in the *ISP Remand Order.*[48] The court specifically stated that there was a "non-trivial likelihood" that the Commission would be able to justify the regime it adopted.[49] Given this statement by the court, its decision to remand our order is not in itself a sufficient basis for forbearance.

18. We also reject Core's broad, unsupported allegations that these rules "have brought about anticompetitive harm to CLECs, deterred investment in telecommunications businesses, limited the service options available to telecommunications consumers, and severely damaged the state of the telecommunications industry and the broader economy."[50] Core provides no evidence to support these claims. Nor does it challenge the continuing validity of the public interest rationale provided by the Commission when it adopted these rules.[51] The Commission implemented the rate caps because the application by state commissions of per-minute reciprocal compensation rates to ISP-bound traffic "created opportunities for regulatory arbitrage and distorted the economic incentives related to competitive entry into the local exchange and exchange access markets."[52] These caps, which apply to all

[44] Core Forbearance Petition at 6.

[45] Core Reply at 5. *See also* West Virginia PSC Consumer Advocate Division Comments at 6, 11-14.

[46] 47 U.S.C. §§ 160(a)(3), 160(b).

[47] *See* Core Forbearance Petition at 3-4. *See also* MCI Comments at 2; TelNet Comments at 2.

[48] *WorldCom, Inc. v. FCC,* 288 F.3d at 434.

[49] *WorldCom, Inc. v. FCC,* 288 F.3d at 434. We choose not to address the pending remand issues in this order. As explained above, and as we have explained to the D.C. Circuit in response to Core's pending mandamus petition, the Commission is considering comprehensive reform of intercarrier compensation mechanisms for all traffic, including ISP-bound traffic. *See In re Core Communications, Inc.,* Response of Federal Communications Commission to Petition for Writ of Mandamus, File No. 04-1179, United States Court of Appeals for the District of Columbia Circuit (Aug. 19, 2004) at 8-9. We have been presented with four separate proposals from different industry groups. *See* note 8 above. These proposals represent the product of unprecedented industry-wide negotiations regarding this extremely complex subject matter. We hope to move forward expeditiously in our consideration of these proposals. We find that the benefit of considering these important issues in a comprehensive manner outweighs the consequences, if any, of a delay in responding to the *WorldCom* remand. For similar reasons, we choose not to address pending petitions for reconsideration, clarification, or waiver of the *ISP Remand Order* at this time.

[50] Core Forbearance Petition at 11.

[51] *See* Core Forbearance Petition at 11; *see also ISP Remand Order,* 16 FCC Rcd at 9154-56, 9162, 9181-84, 9186-87, paras. 5, 7, 21, 67-71, 73, and 77.

[52] *ISP Remand Order*, 16 FCC Rcd at 9153, para. 2.

carriers, were designed to send more accurate price signals and substantially reduce market distortions.[53] Core does not challenge the Commission's conclusion that rate caps help avoid arbitrage and market distortions that otherwise would result from the availability of reciprocal compensation for ISP-bound traffic.

19. Nor does Core address the Commission's concern that, without the mirroring rule, incumbent LECs would too easily be able to take advantage of the discrepancy between reduced rates for ISP-bound traffic and higher rates for section 251(b)(5) voice traffic. The mirroring rule was adopted to preclude incumbent LECs from paying reduced intercarrier compensation rates for ISP-bound traffic, which they send to competitive LECs, while collecting higher state reciprocal compensation rates for traffic that they receive. In addition, the mirroring rule promotes our goal of a more unified intercarrier compensation regime by requiring LECs to offer similar rates for like traffic. We find that the rate caps and mirroring rule remain necessary to prevent regulatory arbitrage and promote efficient investment in telecommunications services and facilities.

20. *Growth Caps.* We find that the growth caps are no longer in the public interest. Market developments since 2001 have eased the concerns about growth of dial-up ISP traffic that led the Commission to adopt these rules. The Commission imposed an overall cap on ISP-bound minutes for which compensation is due in order to ensure that growth in dial-up Internet access would not undermine the Commission's efforts to limit intercarrier compensation for this traffic, and to address intercarrier compensation in a comprehensive and unified manner.[54] At the time of the *ISP Remand Order*, the Commission sought to prevent continued expansion of the arbitrage opportunity presented by ISP-bound traffic.[55] Recent industry statistics indicate, however, that this expansion is not likely to occur given declining usage of dial-up ISP services. For example, one recent report suggests that the number of end users using conventional dial-up to connect to ISPs is declining as the number of end users using broadband services to access ISPs grows.[56] We do not anticipate, therefore, that the availability of compensation to carriers that serve ISPs will have any material impact on the migration of consumers from dial-up services to broadband services. Thus, we now conclude that the policies favoring a unified compensation regime outweigh any remaining concerns about the growth of dial-up Internet traffic.[57]

21. *New Markets Rule.* We also find that the new markets rule is no longer in the public interest. This rule creates different rates for similar or identical functions. As explained above, although the Commission implemented this rule in order to confine the opportunities for regulatory arbitrage, we find that these arbitrage concerns have decreased, and that these concerns are now outweighed by the public interest in creating a uniform compensation regime. Accordingly, we find that forbearance from

---

[53] *ISP Remand Order*, 16 FCC Rcd at 9186, para. 77.

[54] *ISP Remand Order* 16 FCC Rcd at 9101, para. 86.

[55] *ISP Remand Order*, 16 FCC Rcd 9188-89, para. 81.

[56] *See* Letter from Charles D. Breckinridge, Counsel for Level 3, to Marlene H. Dortch, Secretary, Federal Communications Commission, CC Docket Nos. 96-98, 99-68, 03-266, and 04-36, Attach at Ex. 1 (filed June 25, 2004 (attaching a report by Bernstein Research entitled "DSL Economics I: Continued Broadband Adoption to Drive 22 % DSL Revenue Growth Through 2008"); *see also Federal Communications Commission Releases Data on High-Speed Services For Internet Access*, News, at Table 1 (rel. June 8, 2004) (reporting only 2.7 million high-speed Internet access lines in December 1999 and 28 million high-speed Internet access lines in December 2003).

[57] *See infra* paras. 23-24.

this rule is consistent with the public interest.

B. Discrimination

22. Section 10(a)(1) requires us to determine whether application of rate caps, growth caps, the mirroring rule, and the new markets rule are still "necessary to ensure that the charges, practices, classifications or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory."[58] Core argues that the rules are "discriminatory" and unfairly distinguish among CLECs.[59] More specifically, Core argues that "the reduced rates for reciprocal compensation, new market bar, and growth cap" require "only certain CLECs to recoup their terminating switch costs for ISP-bound traffic from their end users," thereby putting "those carriers at a competitive disadvantage as compared to the BOCs, and to other competitive carriers established within a specific local market prior to the Commission's implementation of the *ISP Remand Order.*"[60] We find that Core has not met the statutory test with respect to the rate caps or mirroring rule. We do find, however, that the growth caps and new markets rule are no longer necessary to ensure that charges and practices are just and reasonable.

23. *Rate Caps and Mirroring Rule.* Core has not demonstrated that enforcement of the rate caps or mirroring rule is no longer necessary to ensure that charges and practices are "just and reasonable," or to prevent rates that are "unjustly or unreasonably discriminatory." We find that the potential for discrimination under the rate caps is limited because the caps apply to ISP-bound traffic only if an incumbent LEC offers to exchange all section 251(b)(5) traffic at the same rate.[61] The mirroring rule was adopted based on our finding that the record lacked evidence of any material differences between the costs of delivering ISP-bound traffic and local voice traffic that would justify any difference in treatment between the two with respect to intercarrier compensation.[62] Because the record still lacks any such evidence, we affirm our prior conclusion that the mirroring rule is necessary to prevent disparate treatment of the two types of traffic. Accordingly, Core has not demonstrated that the rules result in impermissible discrimination against or between CLECs, or that the Commission's justifications for the interim rules are no longer valid.

24. *Growth Caps and New Markets Rule.* Both the growth caps and new markets rule require carriers to exchange ISP-bound traffic on a bill-and-keep basis under certain circumstances. Under the new markets rule, carriers must exchange ISP-bound traffic on a bill-and-keep basis if those carriers were not exchanging traffic pursuant to interconnection agreements prior to adoption of the *ISP Remand Order.*[63] Under the growth caps, carriers may not receive compensation for ISP-bound minutes

---

[58] 47 U.S.C. § 160(a)(1).

[59] Core Forbearance Petition at 2-3. Core contends that the *ISP Remand Order* "has no basis in law and discriminates against and among competitive LECs in favor of the BOCs in a manner that is wholly inconsistent with the policy goals of the Act." *Id.*

[60] Core Forbearance Petition at 9-10.

[61] *ISP Remand Order*, 16 FCC Rcd at 9193-94, para. 89.

[62] *ISP Remand Order*, 16 FCC Rcd at 9196, para. 93.

[63] *ISP Remand Order*, 16 FCC Rcd at 9188-89, para. 81.

exceeding a particular growth factor.[64] Thus, the compensation rate for ISP-bound traffic in these circumstances is different than the rate that applies to ISP-bound traffic under the rate caps or to section 251(b)(5) traffic under the reciprocal compensation regime. These rules were adopted in order to prevent the expansion of the arbitrage opportunity associated with ISP-bound traffic. Given the market developments since that time,[65] however, we find that these rules are no longer necessary to ensure that charges and practices are just and reasonable, and not unjustly or unreasonably discriminatory. As the Commission observed in the *ISP Remand Order*, carriers likely incur the same costs when delivering a call to a local end user and a data call to an ISP.[66] In that order, the Commission declined to establish separate intercarrier compensation rates, terms, and conditions for local voice and ISP-bound traffic.[67] It concluded that the record failed to demonstrate different costs in delivering traffic that would justify disparate treatment of ISP-bound traffic and local voice traffic under section 251(b)(5). These conclusions suggest that similar rates should apply to both local voice traffic and ISP-bound traffic, absent compelling policy reasons to the contrary.[68] Accordingly, because we conclude that the policy rationale for those rules no longer outweighs policies favoring a unified compensation regime, we conclude that forbearance is warranted.

C. Protection of Consumers

25. Section 10(a)(2) requires us to determine whether application of these rules is still "necessary for the protection of consumers."[69] Core makes no specific arguments to demonstrate that forbearance from the rules at issue would satisfy this standard. Instead, Core makes a general claim, without providing any support, that the rate cap, growth cap, and new markets rule have created "artificially high rates and reduced competitive choice," and have "forced CLECs from the market and deterred investment in telecommunications business, thereby limiting the service options available to telecommunications consumers."[70] Core's speculation regarding the connection between the *ISP Remand Order*, reduced investment in telecommunications facilities, and reduced choices for consumers does not satisfy the second prong of the statutory criteria for forbearance. Indeed, the rate caps and mirroring rule were implemented to prevent the subsidization of dial-up Internet access customers at the expense of consumers of basic telephone service, and to avoid arbitrage and discrimination between services. Core has provided no evidence regarding reduced investment or reduced competitive choices for consumers, nor has it provided any evidence demonstrating that the *ISP Remand Order* is the cause of any such developments. Accordingly, we find that Core has not shown that rate caps or the mirroring rule are "not necessary for the protection of consumers."

---

[64] *ISP Remand Order*, 16 FCC Rcd at 9187, para. 78.

[65] *See supra* para. 20.

[66] *ISP Remand Order*, 16 FCC Rcd at 9194, para. 90.

[67] *ISP Remand Order*, 16 FCC Rcd at 9194, para. 90.

[68] *See ISP Remand Order*, 16 FCC Rcd at 9197, para. 93 (concluding that there was no reason to distinguish between voice and ISP-bound traffic with respect to intercarrier compensation).

[69] 47 U.S.C. § 160(a)(2).

[70] Core Forbearance Petition at 10-11. *See also* Core Reply at 8 (discussing the growth cap and new markets rule). Core makes a related argument that these rules "have deterred investment in the telecommunications business, and have thereby substantially harmed the competitive telecommunications industry and the broader national economy." Core Forbearance Petition at 6.

26. *Growth Caps and New Markets Rule.* We do find, on other grounds, that application of the growth caps and new markets rule is not "necessary for the protection of consumers."[71] These rules are directly related to intercarrier compensation, and were not implemented specifically for the protection of consumers. As explained above, growth caps limit the total ISP-bound minutes for which a LEC may receive compensation.[72] The new markets rule conditions the availability of compensation on whether two carriers were exchanging traffic pursuant to an interconnection agreement prior to the adoption of the *ISP Remand Order.*[73] Accordingly, we find that neither the growth caps nor the new markets rule is necessary for the protection of consumers, and that forbearance is therefore warranted under this prong.

D. Applicability

27. Our rationale for forbearance with respect to the growth caps and new markets rules applies with equal force to other telecommunications carriers. Accordingly, on our own motion, we extend the grant of forbearance with respect to those rules to all telecommunications carriers.

E. Effective Date

28. Consistent with section 10 of the Act and our rules, the Commission's forbearance decision shall be effective on Friday, October 8, 2004.[74] The time for appeal shall run from the release date of this order.[75]

IV. ORDERING CLAUSES

29. Accordingly, IT IS ORDERED that the petition for forbearance of Core Communications IS DENIED in part and GRANTED in part, as set forth herein.

30. IT IS FURTHER ORDERED, pursuant to section 10 of the Communications Act of 1934, 47 U.S.C. 160, and section 1.103(a), that the Commission's forbearance decision SHALL BE EFFECTIVE on October 8, 2004. Pursuant to sections 1.4 and 1.13 of the Commission's rules, 47 C.F.R. 1.4 and 1.13, the time for appeal shall run from the release date of this Order.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

---

[71] 47 U.S.C. § 160(a)(2).

[72] *ISP Remand Order*, 16 FCC Rcd at 9191, para. 86.

[73] *ISP Remand Order,* 16 FCC Rcd at 9188-89, para. 81.

[74] *See* 47 U.S.C. § 160(c) (deeming the petition granted as of the forbearance deadline if the Commission does not deny the petition within the time period specified in the statute), and 47 C.F.R. § 1.103(a).

[75] *See* 47 C.F.R. §§ 1.4 and 1.13.

STATEMENT OF COMMISSIONER JONATHAN S. ADELSTEIN

Re: Petition of Core Communications, Inc. for Forbearance Under 47 U.S.C. § 160(c) from Application of the ISP Remand Order, WC Docket No. 03-171, Order

I approve in part and dissent in part from this Order addressing our compensation rules for traffic destined to Internet Service Providers (ISPs). This Order largely retains our current rules for compensation for ISP-bound traffic based on a reasonable application of the statutory forbearance criteria. The Commission's existing rules were designed to limit opportunities for what the Commission had previously characterized as regulatory arbitrage.

I dissent in part from the Order, however, to the extent that it grants forbearance from two prongs of the Commission's rules concerning growth caps and new markets. While I appreciate competitive carriers' concern about the application of these rules to carriers late to serve the ISP market, the record before us does not persuasively suggest that the bases for the Commission's prior concerns about opportunities for regulatory arbitrage and disincentives to serve non-ISP end-user customers have dissipated. Though commenters argue that the number of dial-up subscribers has declined since the Commission last addressed this issue, the record before us suggests that dial-up minutes for ISP-bound traffic have held steady or are increasing in many areas of the country. More broadly, regulatory treatment of this traffic raises numerous complex issues for our policies regarding local competition, access to the Internet, and broadband deployment. These issues may be particularly pronounced for many rural areas, where broadband penetration rates may be lower than other areas of the country. Given the present record and these larger concerns, I would not have granted relief at this time.

ing *Shumway v. United Parcel Serv., Inc.*, 118 F.3d 60, 64 (2d Cir.1997)). Tuskowski has submitted no evidence regarding her equal protection claim.

Defendants submitted a Department of Public Safety Labor Relations Unit Memorandum dated April 22, 2002 from Captain James Sweetman, Chief of Staff to Lt. Christopher Arciero, Labor Relations Unit. According to the memo:

> Typically, troopers who used improper language received either a counseling or written reprimand. One trooper received a 5 day suspension for using abusive language toward his supervisor. Most suspensions resulted when there were additional charges, such as conduct unbecoming an officer, display of proper attitude, insubordination, etc. TFC Tuskowski has been an employee since November 1982 and has a disciplinary history of a 30 day suspension in 2002, 14 days served and 16 held in abeyance, for insubordination combined with improper demeanor, improper language and disobeying a supervisor. The 16 days held in abeyance need not be served with this discipline as the situations are not substantially similar. The recommended range of discipline is a written reprimand to 1 day suspension.

(Dkt # 18, Ex. 12 at 1). Based on this memo, the discipline Tuskowski received falls within the department guidelines and, absent any evidence showing she has been treated differently than someone similarly situated, her claim fails.

III. CONCLUSION

For the reasons stated herein, defendants' motion for summary judgment (dkt.# 17) is **GRANTED in part and DENIED in part.** Defendants' motion is denied with respect to their requests for attorneys' fee and costs. Judgment shall enter for all defendants, on all counts. The Clerk of the Court shall close this file.

The SOUTHERN NEW ENGLAND TELEPHONE COMPANY, Plaintiff,

v.

MCI WORLDCOM COMMUNICATIONS, INC., et al., Defendants.

Civil Action No. 3:02cv274 (SRU).

United States District Court, D. Connecticut.

March 16, 2005.

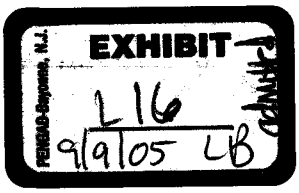
Background: Incumbent local exchange carrier (ILEC) and competitive local exchange carrier (CLEC) challenged interconnection agreement terms imposed by state regulatory agency. After entry of order remanding matter to agency, 353 F.Supp.2d 287, ILEC moved to alter or amend judgment.

Holding: The District Court, Underhill, J., held that Federal Communications Commission's (FCC) internet service provider (ISP) remand order applied to all ISP-bound traffic.

Motion denied.

Telecommunications ⚷864(2)

Federal Communications Commission's (FCC) order requiring reciprocal compensation for transport and termination of telecommunications traffic whenever local exchange carrier exchanged telecommunications traffic with another carrier applied to all internet service pro-



vider (ISP)-bound traffic, not just local ISP-bound traffic. Communications Act of 1934, § 251(b)(5), as amended, 47 U.S.C.A. § 251(b)(5).

Timothy P. Jensen, Tyler, Cooper & Alcorn, New Haven, CT, Michael C. D'Agostino, Bingham McCutchen, Hartford, CT, David L. Schwarz, Michael K. Kellogg, Kellogg, Huber, Hansen, Todd & Evans, Washington, DC, for Plaintiff.

Timothy G. Ronan, Robert J. Sickinger, Cummings & Lockwood, Stamford, CT, Michael B. Desanctis, Jenner & Block, Washington, DC, Robert L. Marconi, Tatiana D. Eirmann, Attorney General's Office Public Utility Control, New Britain, CT, for Defendants.

RULING ON MOTION TO ALTER OR AMEND THE JUDGMENT

UNDERHILL, District Judge.

The Southern New England Telephone Company, now doing business as SBC Connecticut, ("SBC") has moved to amend or alter the judgment entered in this case on February 4, 2005. SBC believes the decision that led to that judgment, *SNET v. MCI WorldCom,* 353 F.Supp.2d 287 (D.Conn.2005) ("the Decision"), erroneously held: (1) that the FCC's *ISP Remand Order,*[1] 2001 WL 455869, 16 F.C.C.R. 9151 (Apr. 27, 2001), applies to all ISP-bound traffic, and (2) that Foreign Exchange ("FX") traffic is subject to reciprocal compensation under 47 U.S.C. § 251(b)(5). Regarding the first point, I am not persuaded that the Decision was in error. Regarding the second point, the Decision did not decide the question whether FX traffic is subject to reciprocal compensation but left it for the Connecticut Department of Public Utility Control ("DPUC") to answer on remand. Accordingly, SBC's motion is denied.

I. ISP Remand Order

The following paragraph from the Decision pertains to SBC's first issue.

> Finally, it is worth emphasizing that, unless and until the FCC changes its rules, ISP-bound traffic is *never* subject to section 251(b)(5) reciprocal compensation, regardless of whether or not it involves the use of FX service. The *ISP Remand Order* covers *all* ISP-bound traffic, without exception. *See Global NAPS, Inc.,* 327 F.Supp.2d at 300 ("The FCC did not distinguish traffic between an ISP and its customer in different local calling areas from traffic between an ISP and its customer in the same local calling area."). Consequently, because the effective date of the *ISP Remand Order* predates the Final Decision, any decision the DPUC makes on remand regarding FX traffic will have no direct effect on ISP-bound traffic.

353 F.Supp.2d at 299. SBC argues that the *ISP Remand Order* does not cover all ISP-bound traffic, but only covers "local" ISP-bound traffic. Accordingly, SBC asks me to remove the second sentence just quoted and to change the final sentence to read "... any decision the DPUC makes on remand regarding FX traffic *may* have no direct effect on ISP-bound traffic." Presumably SBC intends the latter alteration to indicate that the DPUC may decide that FX traffic is not "local," and therefore ISP-bound FX traffic is not "local" ISP-

1. The full name is *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Intercarrier Compensation for ISP-Bound Traffic,* Order on Remand and Report and Order.

bound traffic covered by the *ISP Remand Order.*

In support of its contention that the FCC only intended the *ISP Remand Order* to cover "local" ISP-bound traffic, SBC makes three arguments. First, SBC argues that there is language in the FCC's order and the D.C. Circuit's decision reviewing that order that refers to ISPs in the same "local calling area" as the ISP subscriber. Second, SBC argues that the context of the *ISP Remand Order* makes clear that the FCC was discussing only local ISP-bound traffic. Third, SBC argues that interpreting the order as applying to all ISP-bound traffic will have unintended consequences, including the creation of new arbitrage opportunities.[2]

Before addressing SBC's arguments, I start by noting that, in the *ISP Remand Order*, the FCC did not use the term "local ISP-bound" traffic and did not impose any explicit restriction on the term "ISP-bound traffic." Moreover, as I explained in the Decision, the FCC expressly disavowed the use of the term "local," making it difficult to believe the Commission nevertheless intended that term to be implicitly read back into its ruling. *ISP Remand Order* at 2001 WL 455869, 16 FCC Rcd. at 9167, ¶ 34. ("We also refrain from generically describing traffic as "local" traffic because the term "local," not being a statutorily defined category, is particularly susceptible to varying meaning and, significantly, is not a term used in section 251(b)(5) or section 251(g)."). Put simply, the language of the *ISP Remand Order* is unambiguous—the FCC concluded that section 201 gave it jurisdiction over all ISP-bound traffic, and it proceeded to set the intercarrier compensation rates for such traffic.

Bearing in mind that SBC bears a heavy burden in attempting to argue against the plain language of the FCC's order, I now turn to its arguments.

First, SBC argues that in a number of places the language of the *ISP Remand Order* makes clear that the FCC was discussing local ISP-bound traffic. SBC points to the FCC's statement that "the question arose whether reciprocal compensation obligations apply to the delivery of calls from one LEC's end-user customer to an ISP in the *same local calling area," id.* 2001 WL 455869, ¶ 13, 16 F.C.C.R. at 9158 (emphasis supplied), and to the D.C. Circuit's statement that the FCC held that it could " 'carve out' from § 251(b)(5) calls made to internet service providers ('ISPs') located *within the caller's local calling area," WorldCom v. FCC,* 288 F.3d 429, 430 (D.C.Cir.2002) (emphasis supplied).

I agree that these statements indicate the FCC began by addressing the question whether ISP-bound traffic that would typically be subject to reciprocal compensation—which at the time would have consisted of "local" ISP-bound traffic—was nevertheless exempt. In other words, because at the time only "local" traffic was subject to reciprocal compensation, the question before the FCC was whether "local" ISP-bound traffic was exempt from reciprocal compensation. Other forms of ISP-bound traffic were already exempt because they were not "local."

What these statements, taken by themselves, do not reveal is how the FCC pro-

2. SBC also points to an unpublished decision in the *Global NAPS* case, a case cited in the Decision, in which the District of Vermont amended its conclusion that the *ISP Remand Order* covered all ISP-bound traffic. That Court did not decide the issue one way or another; it merely declined to address the issue. I do not believe the posture of this case affords me that opportunity.

ceeded to answer that question in the *ISP Remand Order.* In answering the question, the FCC: (a) disclaimed the use of the term "local," (b) held that all traffic was subject to reciprocal compensation unless exempted, (c) held that all ISP-bound traffic was exempted because it is "information access," (d) held that all ISP-bound traffic was subject to the FCC's jurisdiction under section 201, and (e) proceeded to set the compensation rates for all ISP-bound traffic. In short, though the FCC started with the question whether "local" ISP-bound traffic was subject to reciprocal compensation, it answered that question in the negative on the basis of its conclusion that all ISP-bound traffic was in a class by itself.

Second, SBC argues that the context of the *ISP Remand Order* makes clear that the FCC did not intend the order to cover ISP-bound traffic that was already subject to a compensation regime other than reciprocal compensation, such as the access charge regime. In support of this position, SBC quotes the FCC's observation that "Congress was concerned about the effects of potential disruption to the interstate access charge system...." *ISP Remand Order* 2001 WL 455869, ¶ 37 n. 66, 16 F.C.C.R. at 9168. SBC believes this quote indicates that the FCC did not intend to work any change in how the interstate access charge system would apply to ISP-bound traffic.

In the first place, this quotation only indicates the FCC's view that Congress did not want to disturb the FCC's regulation of access charges. It does not support the conclusion that the FCC did not want its own regulations to affect calls that are subject to the access charge regime. Even if it did support such a conclusion, it is not clear that a general indication of an agency's intent could override the clear language of the agency's order.

Moreover, there is actually some indication that, at the time it issued the *ISP Remand Order*, the FCC was interested in changing all intercarrier compensation regimes, including the access charge regime. On the same day that the *ISP Remand Order* was issued, the FCC also issued a Notice of Proposed Rulemaking in which it sought to move all forms of intercarrier compensation away from so-called "Calling Party Network Pays" compensation, of which both reciprocal compensation and access charges are examples, towards some method of recovering costs directly from end users. *In the Matter of Developing a Unified Intercarrier Compensation Regime,* Notice of Proposed Rulemaking, 2001 WL 455872, 16 F.C.C.R. 9610 (Apr. 19, 2001); *see also IN THE MATTER OF DEVELOPING A UNIFIED INTERCARRIER COMPENSATION REGIME,* Further Notice of Proposed Rulemaking, FCC 05–33, 2005 WL 495087 (Mar. 3, 2005). Accordingly, it is at least arguable that the FCC intended to use the *ISP Remand Order* as a first step in its general plan to unify all intercarrier compensation, including access charges. *See ISP Remand Order* 2001 WL 455869, 16 F.C.C.R. at 9189–90, ¶ 83 ("The interim compensation regime, as a whole, begins a transition toward what we have tentatively concluded, in the companion *NPRM,* to be a more rational cost recovery mechanism under which LECs recover more of their costs from their own customers.").

Finally, SBC argues that, if the *ISP Remand Order* does cover all ISP-bound traffic, it would have the effect of eliminating the payment of access charges for ISP-bound traffic, resulting in increased opportunity for regulatory arbitrage, despite the FCC's intention that the order should curtail those opportunities. Assuming, with-

out deciding, that SBC is correct that application of the *ISP Remand Order* to all ISP-bound traffic will result in a change in the access charges applicable to such calls [3] and that such a change will give rise to arbitrage opportunity, that is not a sufficient reason to amend the Decision. This court must apply the clear language of an FCC order, even if the result of that application might be harm to certain elements of the telecommunication industry.[4]

II. FX Traffic

The following paragraph from the Decision pertains to SBC's second issue.

> No one argues that FX traffic is an information access service. It is also difficult to see how FX traffic could be exchange access. FX service is not a toll service; FX calls are billed exactly the same as local calls. Moreover, the DPUC has specifically declined to subject FX calls to access charges. Consequently, because it appears that FX traffic is not information access or exchange access (or exchange services for such access), it is not exempt from the reciprocal compensation requirement of section 251(b)(5), and the DPUC's determination to the contrary is in conflict with federal law.

353 F.Supp.2d at 298.

SBC reads this language as precluding the DPUC from revisiting the question of reciprocal compensation for FX traffic. That, SBC contends, would be a mistake. SBC argues it should have the opportunity to demonstrate on remand that FX traffic is "exchange access," as defined by 47 U.S.C. § 153, because the *called* party is billed "a separate charge not included in contracts with subscribers for exchange service." 47 U.S.C. § 153(48).

I agree with SBC that the DPUC should be free to consider that argument on remand.[5] It was not my intention to foreclose such a possibility. I held that, because the DPUC had not offered any explanation for why FX traffic fell into one of the categories excluded from reciprocal compensation and because the record contained no indication that FX traffic would fall into one of those categories, the DPUC's decision to exempt such traffic from reciprocal compensation was in conflict with federal law. In other words, I held that the DPUC's decision to exempt FX traffic violated federal law, not that FX traffic is, as a matter of federal law, always subject to reciprocal compensation.

3. I confess that I am not sure why SBC believes the *ISP Remand Order* would relieve ISPs of the obligation to pay any access charges. SBC Brief at 6 n. 6. The order imposes a cap on intercarrier compensation; it does not eliminate compensation.

4. I acknowledge that the FCC focused its analysis in the *ISP Remand Order* specifically on the arbitrage opportunities surrounding ISP-bound traffic that was previously subject to reciprocal compensation, and, accordingly, reasonable people could take the position that the FCC simply overlooked the effect its order would have on other types of ISP-bound traffic (although, as discussed above, there is evidence supporting the contrary position as well). Nevertheless, the FCC's failure to consider all the ramifications of its order—if indeed there was such a failure—is not something I can rectify.

5. This argument appears to involve factual, as well as legal, questions, making it an appropriate subject for the DPUC to address on remand, rather than for this court to address in the current proceeding. There is a factual question regarding how subscribers are billed for FX service (there does not appear to be a dispute that the called party pays *something* for FX service), and there is a legal question whether the manner of that billing constitutes a charge "included in contracts with subscribers for exchange service." 47 U.S.C. § 153(48).

SBC's motion to amend or alter the judgment (doc. # 76) is DENIED.

It is so ordered.

Martin BAYNE, Plaintiff,

v.

Shawanda M. PROVOST, Stephen A. Meehan et al., Defendants.

No. 1:04–CV–44 TJM/RFT.

United States District Court, N.D. New York.

Jan. 25, 2005.

Background: Homebound patient brought suit for civil rights violation and false imprisonment after state troopers removed him from his home and took him to hospital upon report from home health care provider that he was suicidal. Defendants sought relief when patient provided them with limited medical authorization.

Holdings: The District Court, Treece, United States Magistrate Judge, held that:

(1) federal law under Health Insurance Portability and Accountability Act (HIPAA) controlled ex parte communication with health care provider, and

(2) qualified protective order would issue permitting defendants to interview home health care provider outside patient's presence.

Ordered accordingly.

1. Federal Civil Procedure ⚷1598

One purpose of Health Insurance Portability and Accountability Act (HIPAA) was to make available during the discovery phase health information that may eventually be used in litigation or court proceedings. Social Security Act, §§ 1171, 1173–1178, as amended, 42 U.S.C.A. §§ 1320d, 1320d–2–1320d–7; 45 C.F.R. § 164.512(e)(1)(ii).

2. Witnesses ⚷212

Health care providers and other entities covered by Health Insurance Portability and Accountability Act (HIPAA) may disclose protected health information without patient consent in judicial proceedings. Social Security Act, §§ 1171, 1173–1178, 42 U.S.C.A. §§ 1320d, 1320d–2–1320d–7; 45 C.F.R. § 164.512(e).

3. Witnesses ⚷219(5)

Any physician-patient privileges under New York law that might have been applicable to patient's medical records were waived by his commencement of civil rights and false imprisonment action that sought damages for medical injuries. Fed. Rules Evid.Rule 501, 28 U.S.C.A.

4. Federal Courts ⚷416

Federal statutory law and federal common law governed evidentiary privileges in § 1983 and state tort suit where federal civil rights claim was predominate claim. 42 U.S.C.A. § 1983; Fed.Rules Evid.Rule 501, 28 U.S.C.A.

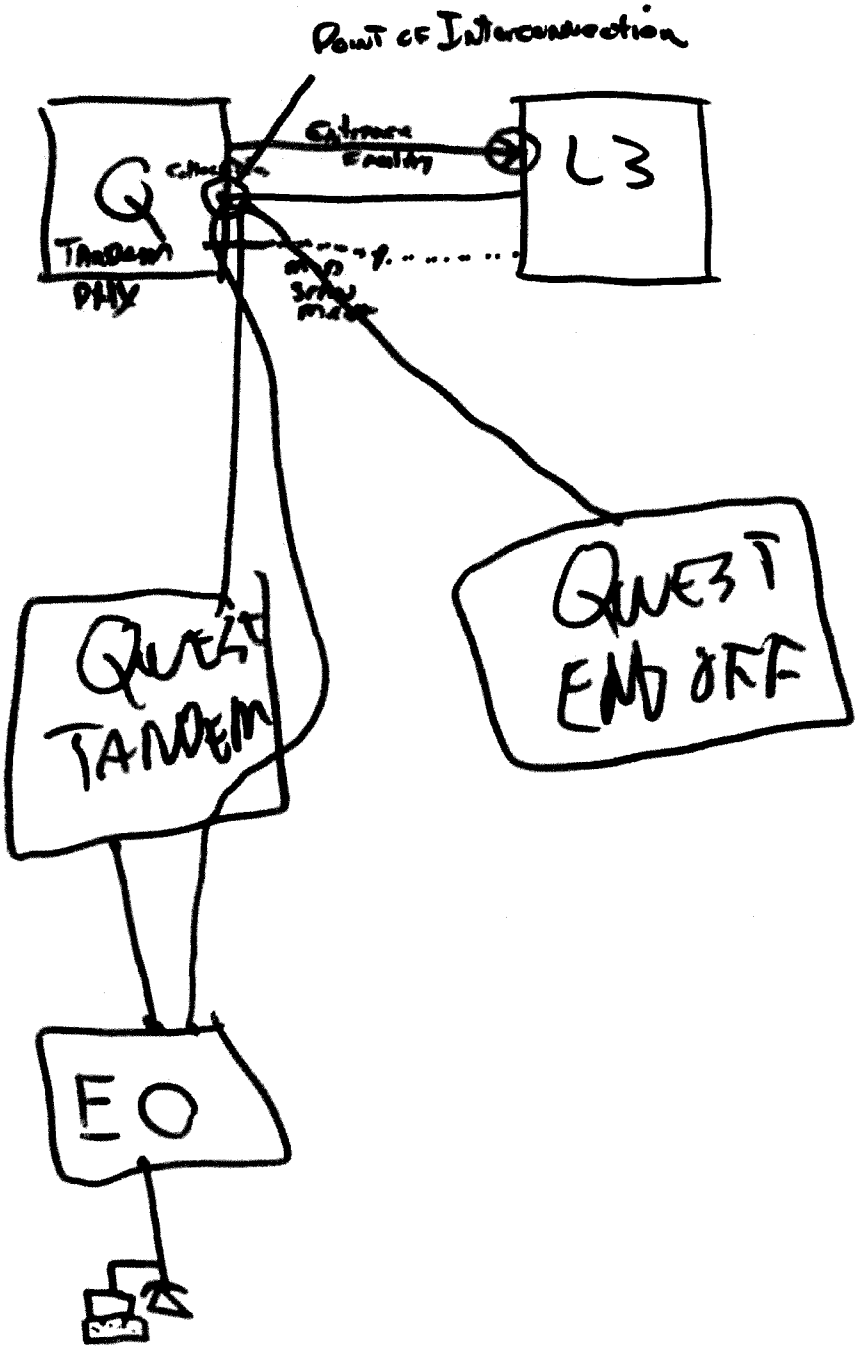
5. Attorney and Client ⚷32(12)

States ⚷18.15

Health Insurance Portability and Accountability Act (HIPAA) provided more stringent standards than New York law for protection of patient health care information in ex parte communication between opposing party's attorney and patient's health care provider, and therefore preempted New York law. Social Security Act, §§ 1171, 1173–1178, as amended, 42 U.S.C.A. §§ 1320d, 1320d–2–1320d–7; 45 C.F.R. § 164.512(e).

EXHIBIT NO. L-18
admitted

LATA



C

CODE OF FEDERAL REGULATIONS
TITLE 47--TELECOMMUNICATION
CHAPTER I--FEDERAL COMMUNICATIONS COMMISSION
SUBCHAPTER B--COMMON CARRIER SERVICES
PART 51--INTERCONNECTION
SUBPART A--GENERAL INFORMATION
Current through August 26, 2005; 70 FR 50947

§ 51.5 Terms and definitions.

Terms used in this part have the following meanings:

Act. The Communications Act of 1934, as amended.

Advanced intelligent network. Advanced Intelligent Network is a telecommunications network architecture in which call processing, call routing, and network management are provided by means of centralized databases located at points in an incumbent local exchange carrier's network.

Advanced services. The term "advanced services" is defined as high speed, switched, broadband, wireline telecommunications capability that enables users to originate and receive high-quality voice, data, graphics or video telecommunications using any technology.

Arbitration, final offer. Final offer arbitration is a procedure under which each party submits a final offer concerning the issues subject to arbitration, and the arbitrator selects, without modification, one of the final offers by the parties to the arbitration or portions of both such offers. "Entire package final offer arbitration," is a procedure under which the arbitrator must select, without modification, the entire proposal submitted by one of the parties to the arbitration. "Issue-by-issue final offer arbitration," is a procedure under which the arbitrator must select, without modification, on an issue-by-issue basis, one of the proposals submitted by the parties to the arbitration.

Billing. Billing involves the provision of appropriate usage data by one telecommunications carrier to another to facilitate customer billing with attendant acknowledgements and status reports. It also involves the exchange of information between telecommunications carriers to process claims and adjustments.

Binder or binder group. Copper pairs bundled together, generally in groups of 25, 50 or 100.

Business line. A business line is an incumbent LEC-owned switched access line used to serve a business customer, whether by the incumbent LEC itself or by a competitive LEC that leases the line from the incumbent LEC. The number of business lines in a wire center shall equal the sum of all incumbent LEC business switched access lines, plus the sum of all UNE loops connected to that wire center, including UNE loops provisioned in combination with other unbundled elements. Among these requirements, business line tallies:

(1) Shall include only those access lines connecting end-user customers with incumbent LEC end-offices for switched services,

(2) Shall not include non-switched special access lines,

(3) Shall account for ISDN and other digital access lines by counting each 64 kbps-equivalent as one line. For example, a DS1 line corresponds to 24 64 kbps-equivalents, and therefore to 24 "business lines."

Commercial Mobile Radio Service (CMRS). CMRS has the same meaning as that term is defined in § 20.3 of this chapter.

Commingling. Commingling means the connecting, attaching, or otherwise linking of an unbundled network element, or a combination of unbundled network elements, to one or more facilities or services that a requesting telecommunications carrier has obtained at wholesale from an incumbent LEC, or the combining of an unbundled network element, or a combination of unbundled network elements, with one or more such facilities or services. Commingle means the act of commingling.

Commission. Commission refers to the Federal Communications Commission.

Day. Day means calendar day.

© 2005 Thomson/West. No Claim to Orig. U.S. Govt. Works.

EXHIBIT
19
9/9/05 LB

Dialing Parity. The term dialing parity means that a person that is not an affiliate of a local exchange carrier is able to provide telecommunications services in such a manner that customers have the ability to route automatically, without the use of any access code, their telecommunications to the telecommunications service provider of the customer's designation from among 2 or more telecommunications service providers (including such local exchange carrier).

Directory assistance service. Directory assistance service includes, but is not limited to, making available to customers, upon request, information contained in directory listings.

Directory listings. Directory listings are any information:

(1) Identifying the listed names of subscribers of a telecommunications carrier and such subscriber's telephone numbers, addresses, or primary advertising classifications (as such classifications are assigned at the time of the establishment of such service), or any combination of such listed names, numbers, addresses or classifications; and

(2) That the telecommunications carrier or an affiliate has published, caused to be published, or accepted for publication in any directory format.

Downstream database. A downstream database is a database owned and operated by an individual carrier for the purpose of providing number portability in conjunction with other functions and services.

Enhanced extended link. An enhanced extended link or EEL consists of a combination of an unbundled loop and unbundled dedicated transport, together with any facilities, equipment, or functions necessary to combine those network elements.

Equipment necessary for interconnection or access to unbundled network elements. For purposes of section 251(c)(2) of the Act, the equipment used to interconnect with an incumbent local exchange carrier's network for the transmission and routing of telephone exchange service, exchange access service, or both. For the purposes of section 251(c)(3) of the Act, the equipment used to gain access to an incumbent local exchange carrier's unbundled network elements for the provision of a telecommunications service.

Fiber-based collocator. A fiber-based collocator is any carrier, unaffiliated with the incumbent LEC, that maintains a collocation arrangement in an incumbent LEC wire center, with active electrical power supply, and operates a fiber-optic cable or comparable transmission facility that

(1) Terminates at a collocation arrangement within the wire center;

(2) Leaves the incumbent LEC wire center premises; and

(3) Is owned by a party other than the incumbent LEC or any affiliate of the incumbent LEC, except as set forth in this paragraph. Dark fiber obtained from an incumbent LEC on an indefeasible right of use basis shall be treated as non-incumbent LEC fiber-optic cable. Two or more affiliated fiber-based collocators in a single wire center shall collectively be counted as a single fiber-based collocator. For purposes of this paragraph, the term affiliate is defined by 47 U.S.C. 153(1) and any relevant interpretation in this Title.

Incumbent Local Exchange Carrier (Incumbent LEC). With respect to an area, the local exchange carrier that:

(1) On February 8, 1996, provided telephone exchange service in such area; and

(2)(i) On February 8, 1996, was deemed to be a member of the exchange carrier association pursuant to § 69.601(b) of this chapter; or

(ii) Is a person or entity that, on or after February 8, 1996, became a successor or assign of a member described in paragraph (2)(i) of this section.

Information services. The term information services means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.

Interconnection. Interconnection is the linking of two networks for the mutual exchange of traffic. This term does not include the transport and termination of traffic.

Intermodal. The term intermodal refers to facilities or technologies other than those found in traditional

© 2005 Thomson/West. No Claim to Orig. U.S. Govt. Works.

telephone networks, but that are utilized to provide competing services. Intermodal facilities or technologies include, but are not limited to, traditional or new cable plant, wireless technologies, and power line technologies.

Known disturber. An advanced services technology that is prone to cause significant interference with other services deployed in the network.

Local Access and Transport Area (LATA). A Local Access and Transport Area is a contiguous geographic area--

(1) Established before February 8, 1996 by a Bell operating company such that no exchange area includes points within more than 1 metropolitan statistical area, consolidated metropolitan statistical area, or State, except as expressly permitted under the AT&T Consent Decree; or

(2) Established or modified by a Bell operating company after February 8, 1996 and approved by the Commission.

Local Exchange Carrier (LEC). A LEC is any person that is engaged in the provision of telephone exchange service or exchange access. Such term does not include a person insofar as such person is engaged in the provision of a commercial mobile service under section 332(c) of the Act, except to the extent that the Commission finds that such service should be included in the definition of the such term.

Maintenance and repair. Maintenance and repair involves the exchange of information between telecommunications carriers where one initiates a request for maintenance or repair of existing products and services or unbundled network elements or combination thereof from the other with attendant acknowledgements and status reports.

Meet point. A meet point is a point of interconnection between two networks, designated by two telecommunications carriers, at which one carrier's responsibility for service begins and the other carrier's responsibility ends.

Meet point interconnection arrangement. A meet point interconnection arrangement is an arrangement by which each telecommunications carrier builds and maintains its network to a meet point.

Mobile wireless service. A mobile wireless service is any mobile wireless telecommunications service, including any commercial mobile radio service.

Multi-functional equipment. Multi-functional equipment is equipment that combines one or more functions that are necessary for interconnection or access to unbundled network elements with one or more functions that would not meet that standard as stand-alone functions.

Network element. A network element is a facility or equipment used in the provision of a telecommunications service. Such term also includes, but is not limited to, features, functions, and capabilities that are provided by means of such facility or equipment, including but not limited to, subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.

Operator services. Operator services are any automatic or live assistance to a consumer to arrange for billing or completion of a telephone call. Such services include, but are not limited to, busy line verification, emergency interrupt, and operator-assisted directory assistance services.

Physical collocation. Physical collocation is an offering by an incumbent LEC that enables a requesting telecommunications carrier to:

(1) Place its own equipment to be used for interconnection or access to unbundled network elements within or upon an incumbent LEC's premises;

(2) Use such equipment to interconnect with an incumbent LEC's network facilities for the transmission and routing of telephone exchange service, exchange access service, or both, or to gain access to an incumbent LEC's unbundled network elements for the provision of a telecommunications service;

(3) Enter those premises, subject to reasonable terms and conditions, to install, maintain, and repair equipment necessary for interconnection or access to unbundled elements; and

(4) Obtain reasonable amounts of space in an incumbent LEC's premises, as provided in this part, for the equipment necessary for interconnection or access to unbundled elements, allocated on a first-come, first-served basis.

Premises. Premises refers to an incumbent LEC's

© 2005 Thomson/West. No Claim to Orig. U.S. Govt. Works.

central offices and serving wire centers; all buildings or similar structures owned, leased, or otherwise controlled by an incumbent LEC that house its network facilities; all structures that house incumbent LEC facilities on public rights-of-way, including but not limited to vaults containing loop concentrators or similar structures; and all land owned, leased, or otherwise controlled by an incumbent LEC that is adjacent to these central offices, wire centers, buildings, and structures.

Pre-ordering and ordering. Pre-ordering and ordering includes the exchange of information between telecommunications carriers about: current or proposed customer products and services; or unbundled network elements, or some combination thereof. This information includes loop qualification information, such as the composition of the loop material, including but not limited to: fiber optics or copper; the existence, location and type of any electronic or other equipment on the loop, including but not limited to, digital loop carrier or other remote concentration devices, feeder/distribution interfaces, bridge taps, load coils, pair-gain devices, disturbers in the same or adjacent binder groups; the loop length, including the length and location of each type of transmission media; the wire gauge(s) of the loop; and the electrical parameters of the loop, which may determine the suitability of the loop for various technologies.

Provisioning. Provisioning involves the exchange of information between telecommunications carriers where one executes a request for a set of products and services or unbundled network elements or combination thereof from the other with attendant acknowledgements and status reports.

Rural telephone company. A rural telephone company is a LEC operating entity to the extent that such entity:

(1) Provides common carrier service to any local exchange carrier study area that does not include either:

(i) Any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or

(ii) Any territory, incorporated or unincorporated, included in an urbanized area, as defined by the Bureau of the Census as of August 10, 1993;

(2) Provides telephone exchange service, including exchange access, to fewer than 50,000 access lines;

(3) Provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or

(4) Has less than 15 percent of its access lines in communities of more than 50,000 on February 8, 1996.

Service control point. A service control point is a computer database in the public switched network which contains information and call processing instructions needed to process and complete a telephone call.

Service creation environment. A service creation environment is a computer containing generic call processing software that can be programmed to create new advanced intelligent network call processing services.

Service provider. A service provider is a provider of telecommunications services or a provider of information services.

Signal transfer point. A signal transfer point is a packet switch that acts as a routing hub for a signaling network and transfers messages between various points in and among signaling networks.

State. The term state includes the District of Columbia and the Territories and possessions.

State commission. A state commission means the commission, board, or official (by whatever name designated) which under the laws of any state has regulatory jurisdiction with respect to intrastate operations of carriers. As referenced in this part, this term may include the Commission if it assumes responsibility for a proceeding or matter, pursuant to section 252(e)(5) of the Act or § 51.320. This term shall also include any person or persons to whom the state commission has delegated its authority under sections 251 and 252 of the Act and this part.

State proceeding. A state proceeding is any administrative proceeding in which a state commission may approve or prescribe rates, terms, and conditions including, but not limited to, compulsory arbitration pursuant to section 252(b) of the Act, review of a Bell operating company statement of generally available terms pursuant to section 252(f) of the Act, and a proceeding to determine whether to approve or reject an agreement adopted by arbitration pursuant to section 252(e) of

© 2005 Thomson/West. No Claim to Orig. U.S. Govt. Works.

the Act.

Technically feasible. Interconnection, access to unbundled network elements, collocation, and other methods of achieving interconnection or access to unbundled network elements at a point in the network shall be deemed technically feasible absent technical or operational concerns that prevent the fulfillment of a request by a telecommunications carrier for such interconnection, access, or methods. A determination of technical feasibility does not include consideration of economic, accounting, billing, space, or site concerns, except that space and site concerns may be considered in circumstances where there is no possibility of expanding the space available. The fact that an incumbent LEC must modify its facilities or equipment to respond to such request does not determine whether satisfying such request is technically feasible. An incumbent LEC that claims that it cannot satisfy such request because of adverse network reliability impacts must prove to the state commission by clear and convincing evidence that such interconnection, access, or methods would result in specific and significant adverse network reliability impacts.

Telecommunications carrier. A telecommunications carrier is any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226 of the Act). A telecommunications carrier shall be treated as a common carrier under the Act only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage. This definition includes CMRS providers, interexchange carriers (IXCs) and, to the extent they are acting as telecommunications carriers, companies that provide both telecommunications and information services. Private Mobile Radio Service providers are telecommunications carriers to the extent they provide domestic or international telecommunications for a fee directly to the public.

Telecommunications service. The term telecommunications service refers to the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

Telephone exchange service. A telephone exchange service is:

(1) A service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge, or

(2) A comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service.

Telephone toll service. The term telephone toll service refers to telephone service between stations in different exchange areas for which there is made a separate charge not included in contracts with subscribers for exchange service.

Triennial Review Order. The Triennial Review Order means the Commission's Report and Order and Order on Remand and Further Notice of Proposed Rulemaking in CC Docket Nos. 01-338, 96-98, and 98-147.

Triennial Review Remand Order. The Triennial Review Remand Order is the Commission's Order on Remand in CC Docket Nos. 01-338 and 04-313 (released February 4, 2005).

Unreasonable dialing delay. For the same type of calls, dialing delay is "unreasonable" when the dialing delay experienced by the customer of a competing provider is greater than that experienced by a customer of the LEC providing dialing parity, or nondiscriminatory access to operator services or directory assistance.

Virtual collocation. Virtual collocation is an offering by an incumbent LEC that enables a requesting telecommunications carrier to:

(1) Designate or specify equipment to be used for interconnection or access to unbundled network elements to be located within or upon an incumbent LEC's premises, and dedicated to such telecommunications carrier's use;

(2) Use such equipment to interconnect with an incumbent LEC's network facilities for the transmission and routing of telephone exchange service, exchange access service, or both, or for access to an incumbent LEC's unbundled network elements for the provision of a telecommunications service; and

© 2005 Thomson/West. No Claim to Orig. U.S. Govt. Works.

(3) Electronically monitor and control its communications channels terminating in such equipment.

Wire center. A wire center is the location of an incumbent LEC local switching facility containing one or more central offices, as defined in the Appendix to part 36 of this chapter. The wire center boundaries define the area in which all customers served by a given wire center are located.

[61 FR 47348, Sept. 6, 1996; 64 FR 23241, April 30, 1999; 65 FR 1344, Jan. 10, 2000; 65 FR 2550, Jan. 18, 2000; 65 FR 8280, Feb. 18, 2000; 65 FR 54438, Sept. 8, 2000; 66 FR 43521, Aug. 20, 2001; 68 FR 52293, Sept. 2, 2003; 70 FR 8952, Feb. 24, 2005]

<General Materials (GM) - References, Annotations, or Tables>

47 C. F. R. § 51.5

47 CFR § 51.5

END OF DOCUMENT

© 2005 Thomson/West. No Claim to Orig. U.S. Govt. Works.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)	CC Docket No. 96-98
Intercarrier Compensation for ISP-Bound Traffic	)	CC Docket No. 99-68

ORDER ON REMAND AND REPORT AND ORDER

Adopted: April 18, 2001 **Released:** April 27, 2001

By the Commission: Chairman Powell issuing a statement; Commissioner Furchtgott-Roth dissenting and issuing a statement.

TABLE OF CONTENTS

Paragraph No.

I. INTRODUCTION 1

II. EXECUTIVE SUMMARY 3

III. BACKGROUND 9

IV. DISCUSSION 18

A. Background 18

B. Statutory Analysis 23

1. Introduction 24
2. Section 251(g) Excludes Certain Categories of Traffic from the Scope of "Telecommunications" Subject to Section 251(b)(5) 31
3. ISP-Bound Traffic Falls within the Categories Enumerated in Section 251(g) 42
4. Section 251(i) Preserves the Commission's Authority to Regulate Interstate Access Services 48
5. ISP-Bound Traffic Falls Within the Purview of the Commission's Section 201 Authority 52

EXHIBIT
L20
admitted
LB 9/9/05

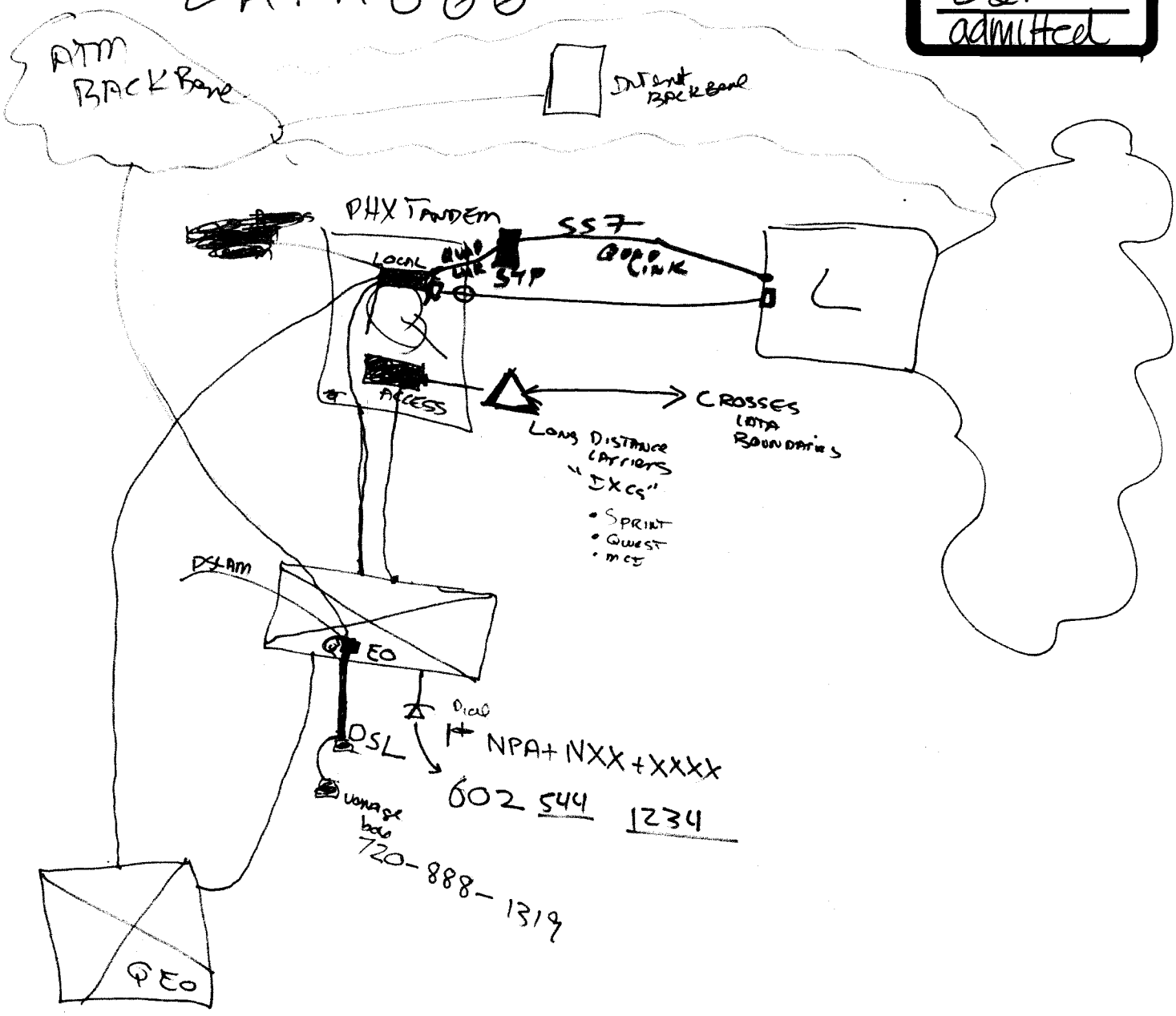
2. Intercarrier Compensation for ISP-bound Traffic

77. We believe that a hybrid mechanism that establishes relatively low per minute rates, with a cap on the total volume of traffic entitled to such compensation, is the most appropriate interim approach over the near term to resolve the problems associated with the current intercarrier compensation regime for ISP-bound traffic. Our primary goal at this time is to address the market distortions under the current intercarrier compensation regimes for ISP-bound traffic. At the same time, we believe it prudent to avoid a "flash cut" to a new compensation regime that would upset the legitimate business expectations of carriers and their customers. Subsequent to the Commission's *Declaratory Ruling*, many states have required the payment of reciprocal compensation for ISP-bound traffic, and CLECs may have entered into contracts with vendors or with their ISP customers that reflect the expectation that the CLECs would continue to receive reciprocal compensation revenue. We believe it appropriate, in tailoring an interim compensation mechanism, to take those expectations into account while simultaneously establishing rates that will produce more accurate price signals and substantially reduce current market distortions. Therefore, pending our consideration of broader intercarrier compensation issues in the *NPRM*, we impose an interim intercarrier compensation regime for ISP-bound traffic that serves to limit, if not end, the opportunity for regulatory arbitrage, while avoiding a market-disruptive "flash cut" to a pure bill and keep regime. The interim regime we establish here will govern intercarrier compensation for ISP-bound traffic until we have resolved the issues raised in the intercarrier compensation *NPRM*.

78. Beginning on the effective date of this Order, and continuing for six months, intercarrier compensation for ISP-bound traffic will be capped at a rate of $.0015/minute-of-use (mou). Starting in the seventh month, and continuing for eighteen months, the rate will be capped at $.0010/mou. Starting in the twenty-fifth month, and continuing through the thirty-sixth month or until further Commission action (whichever is later), the rate will be capped at $.0007/mou. In addition to the rate caps, we will impose a cap on total ISP-bound minutes for which a LEC may receive this compensation. For the year 2001, a LEC may receive compensation, pursuant to a particular interconnection agreement, for ISP-bound minutes up to a ceiling equal to, on an annualized basis, the number of ISP-bound minutes for which that LEC was entitled to compensation under that agreement during the first quarter of 2001, plus a ten percent growth factor. For 2002, a LEC may receive compensation, pursuant to a particular interconnection agreement, for ISP-bound minutes up to a ceiling equal to the minutes for which it was entitled to compensation under that agreement in 2001, plus another ten percent growth factor. In 2003, a LEC may receive compensation, pursuant to a particular interconnection agreement, for ISP-bound minutes up to a ceiling equal to the 2002 ceiling applicable to that agreement.[149]

79. We understand that some carriers are unable to identify ISP-bound traffic. In order to limit disputes and avoid costly efforts to identify this traffic, we adopt a rebuttable presumption that traffic delivered to a carrier, pursuant to a particular contract, that exceeds a 3:1 ratio of terminating to originating traffic is ISP-bound traffic that is subject to the compensation

[149] This interim regime affects only the intercarrier *compensation* (*i.e.*, the rates) applicable to the delivery of ISP-bound traffic. It does not alter carriers' other obligations under our Part 51 rules, 47 C.F.R. Part 51, or existing interconnection agreements, such as obligations to transport traffic to points of interconnection.

EXHIBIT
L-21
admitted

LATA 666