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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION TO RESOLVE ISSUES RELATING TO AN INTER-CONNECTION AGREEMENT WITH QWEST CORPORATION	)	Docket No. T-03632A-04-0425

DIRECT TESTIMONY OF
ELIZABETH BALVIN
(Non-confidential Version)

FILED ON BEHALF OF
DIECA COMMUNICATIONS, INC.
D/B/A COVAD COMMUNICATIONS COMPANY

December 20, 2004

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I. QUALIFICATIONS

Q. MS. BALVIN, PLEASE IDENTIFY YOURSELF FOR THE COMMISSION.

A. My name is Elizabeth (Liz) Balvin and I am employed by Covad Communications Company ("Covad") as the Director of External Affairs for the Qwest region. My business address is 7901 Lowry Boulevard, Denver, Colorado 80230.

Q. MS. BALVIN, PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR JOB RESPONSIBILITIES AND EXPERIENCE.

A. As Director of External Affairs my primary responsibility is to drive Qwest business related issues to resolution. This includes resolution of operational problems, OSS issues (from prequalification through billing), and negotiating acceptable solutions with Qwest so that Covad can pursue meaningful business opportunities in this market. Qwest is a critical piece of Covad's puzzle, thus driving operational and OSS issues on a business-to-business level is necessary. This is done via the change management process, at industry workshops, and in interconnection agreement negotiations. To understand Covad's issues, I work directly with our internal groups that are attempting to do business with Qwest on a daily basis.

While new to Covad I am not new to the telecommunications industry as I worked for MCI for nearly 11 years. I began my tenure with MCI on the long distance side of the house reconciling credit card billing. Later, I audited ILEC unbillable records and negotiated settlements when inaccurate records were produced. I then supervised the automation of casual billing records and then

finished my career at MCI as Senior. Project Manager in the Carrier Relations group. As Senior Project Manager, I served as the technical advisory group member for Qwest third party tests (such as the ROC and AZ). In addition, I was the single point of contact for Qwest Change Management Processes and actually assisted in the development of the "re-designed" change management that exists today. Prior to coming to Covad I was also responsible for establishing an EDI interface with Qwest for local services. Upon implementation, I drove to resolution issues with the interface that caused local orders to reject. I was responsible for driving issues from order entry through billing and the goal was to settle at the business table to eliminate regulatory actions.

II. SUMMARY OF TESTIMONY

Q. PLEASE BRIEFLY SUMMARIZE YOUR TESTIMONY.

A. Qwest and Covad have recommended timeframes that differ when it comes to the "payment due date", the "discontinuance of order processing, and "disconnection of service". While Qwest believes its recommended timeframes are "standard and commercially-reasonable practices", Covad's timeframes account for Qwest billing deficiencies that cause manually intensive analysis in order to (1) validate bills for accuracy, (2) avoid unnecessary late payments and/or deposits due to inappropriately reflected payment records, or (3) worst case, the discontinuance of service whereby the end user has not made the choice to leave Covad because the dispute is between Qwest and Covad.

III. ARBITRATION ISSUES

ISSUE ~~26b~~ 8 TIME FRAME FOR PAYMENT OF BILLS, DISCONTINUANCE OF ORDERING, AND DISCONNECTION OF SERVICE

Q. PLEASE PROVIDE THE CONTEXT FOR THIS ISSUE.

A. For Issue 9, the three outstanding sub-issues on the table from a billing perspective surround (1) payment of bills; (2) discontinuation of order processing; and (3) disconnection of service, whereby at issue are the specific timeframes to be imposed upon execution the Qwest-Covad Arizona Interconnection agreement. These issues will be discussed in greater detail below. While there was a fourth billing time frame at issue, Qwest and Covad have reached agreement on the definition of repeated delinquency, thereby eliminating that sub-issue from this arbitration.

Q. PLEASE IDENTIFY THE TIMEFRAMES SET FORTH BY BOTH PARTIES.

A. To summarize, the chart below reflects Qwest and Covad's proposed timeframes:

	Payment Due Date (after invoice or within 20 calendar days of receipt)	Discontinuance of Order Processing (after payment due date)	Disconnection of Services (following payment due date)
Qwest Proposal	30	30	60
Covad Proposal	30 (except some 45)	60	90

Covad's proposed language reads:

> 5.4.1 Amounts payable for any invoice containing (1) line splitting or loop splitting products, (2) a missing circuit ID, (3) a missing USOC, or (4) new rate elements, new services, or new features not previously ordered by CLEC (collectively "New Products") (items (1)-(4) hereinafter collectively referred to as "Exceptions") are due and payable within forty-five (45) calendar Days after the date of invoice, or within twenty (20) calendar Days after receipt of the invoice, whichever is later (payment due date). With respect to the New Products Exception, the forty-five (45)

Day time period shall apply for twelve (12) months. After twelve (12) months' experience, such New Products shall be subject to the thirty (30) Day time frame hereinafter discussed. Any invoice that does not contain any of the above Exceptions are due and payable within thirty (30) calendar Days after the date of invoice, or within twenty (20) calendar Days after receipt of the invoice, whichever is later. If the payment due date is not a business day, the payment shall be due the next business day.

5.4.2 One Party may discontinue processing orders for the failure of the other Party to make full payment for the relevant services, less any disputed amount as provided for in Section 5.4.4 of this Agreement, for the relevant services provided under this Agreement within sixty (60) calendar Days following the payment due date. The Billing Party will notify the other Party in writing at least ten (10) business days prior to discontinuing the processing of orders for the relevant services. If the Billing Party does not refuse to accept additional orders for the relevant services on the date specified in the ten (10) business days notice, and the other Party's non-compliance continues, nothing contained herein shall preclude the Billing Party's right to refuse to accept additional orders for the relevant services from the non-complying Party without further notice. For order processing to resume, the billed Party will be required to make full payment of all charges for the relevant services not disputed in good faith under this Agreement. Additionally, the Billing Party may require a deposit (or additional deposit) from the billed Party, pursuant to this section. In addition to other remedies that may be available at law or equity, the billed Party reserves the right to seek equitable relief including injunctive relief and specific performance.

5.4.3 The Billing Party may disconnect any and all relevant services for failure by the billed Party to make full payment, less any disputed amount as provided for in Section 5.4.4 of this Agreement, for the relevant services within ninety (90) calendar Days following the payment due date. The billed Party will pay the applicable reconnect charge set forth in Exhibit A required to reconnect each resold End User Customer line disconnected pursuant to this paragraph. The Billing Party will notify the billed Party at least ten (10) business days prior to disconnection of the unpaid service(s). In case of such disconnection, all applicable undisputed charges, including termination charges, shall become due. If the Billing Party does not disconnect the billed Party's service(s) on the date specified in the ten (10) business days notice, and the billed Party's noncompliance continues, nothing contained herein shall preclude the Billing Party's right to disconnect any or all relevant services of the non-complying Party without further notice. For reconnection of the non-paid service to occur, the billed

> Party will be required to make full payment of all past and current undisputed charges under this Agreement for the relevant services. Additionally, the Billing Party will request a deposit (or recalculate the deposit) as specified in Section 5.4.5 and 5.4.7 from the billed Party, pursuant to this Section. Both Parties agree, however, that the application of this provision will be suspended for the initial three (3) Billing cycles of this Agreement and will not apply to amounts billed during those three (3) cycles. In addition to other remedies that may be available at law or equity, each Party reserves the right to seek equitable relief, including injunctive relief and specific performance.

An additional change comes with the payment due date language, where the standard for payment is thirty (30) days, except that Covad shall have forty-five (45) days to make payment for any invoice containing: (1) line splitting or loop splitting products, (2) a missing circuit ID, (3) a missing USOC, or (4) new rate elements, new services, or new features not previously ordered by CLEC (collectively "New Products"). In this instance, Covad not only believes the extension is warranted but in addition should provide an incentive for Qwest to produce verifiable billing records.

Q. PLEASE DESCRIBE WHY THE QWEST PROPOSED TIMEFRAMES DO NOT MAKE SENSE.

A. Qwest and Covad must establish billing timeframes that make sense not only from a business to business relationship but also to ensure that the end-users are not unnecessarily impacted. Covad believes that the following questions must be answered in order to determine appropriate billing timeframes (1) Are CLECs able to validate the detailed billing records provided by Qwest such that payment should be rendered within 30 days; (2) whether it is appropriate for Qwest to stop receiving new orders 30 days after the payment due date regardless of disputed records; and (3) whether it appropriate for Qwest to only wait 60 days after the payment due date to disconnect end-user's that have not chosen to leave Covad. While Qwest seeks shorter timeframes, those timeframes do not support good

business practices for Covad and/or the end-users seeking Covad's services. Covad is not attempting to avoid making payment when payment is due, we are simply seeking meaningful time to validate that payments should be made for the services rendered.

Q. WHAT DOES COVAD HAVE AT STAKE WHEN BILLING TIMEFRAMES ARE TOO STRINGENT?

A. Timing is a critical issue when it comes to bill review. Regardless of what the ultimate time frame is, Covad has a limited amount of time to review a bill, determine whether to dispute any portion of that bill, and pay any undisputed amounts owed. Importantly, a Covad failure to adhere to the billing timelines has significant and negative consequences:

- Failure to pay on time places a carrier at risk of incurring late payment charges. Late payment charges can result in significant costs to Covad;
- Failure to pay on time places a carrier at risk of having to provide a deposit, which Qwest estimates the deposit to equal charges for a two-month period;
- Failure to pay on time can result in discontinuance of processing new orders for Covad and disconnection of the end-users' services through no fault of their own.
- End-users disconnected without consent will most certainly be unfavorable for Covad.

The timeframes set forth by Covad provide adequate incentive for Covad to pay in a timely manner or severe consequences will result. On the flip side, Qwest has no incentive to fix its billing deficiencies given its proposed time frames, and has

proposed rapid timeframes to stop new orders from Covad, as well as the ability to disconnect Covad end-users even those customers are not at fault.

Q. LETS TAKE THESE THREE PROVISIONS IN ORDER STARTING WITH "PAYMENT DUE DATE." PLEASE PROVIDE IN DETAIL WHY COVAD BELIEVES MORE TIME IS NECESSARY UNDER CERTAIN CIRCUMSTANCES.

A. Let me re-state Covad's proposed language for section 5.4.3:

> Amounts payable for any invoice containing (1) line splitting or loop splitting products, (2) a missing circuit ID, (3) a missing USOC, or (4) new rate elements, new services, or new features not previously ordered by CLEC (collectively "New Products") (items (1)-(4) hereinafter collectively referred to as "Exceptions") are due and payable within forty-five (45) calendar Days after the date of invoice, or within twenty (20) calendar Days after receipt of the invoice, whichever is later (payment due date).

It is also worth noting that Covad does not actually have thirty days to review Qwest bills before payment. Under the terms of the agreement, the clock starts running on the thirty day interval for payment when Qwest prints the date on the invoice. Covad typically receives the invoice five to eight days after the date printed on the invoice, meaning Covad typically has only twenty-two to twenty-five days to conduct a review before incurring late payment charges.

The exceptions to Qwest's proposed payment interval are reasonable for the following reasons: new products call for newly implemented business rules applied by Qwest that must be validated for accuracy; missing circuit ID and/or USOC information cause manually intensive review of the records to validate for accuracy; new rate elements,

services, or features again cause Qwest to implement new business rules that must be validated for accuracy. That being said, Covad has proposed language to accommodate a date certain timeframe that Covad's review procedures must be reduced to the 30 day interval – i.e. after 12 months experience. A date certain timeframe calls for Covad to establish efficient billing review procedures that are not easily known upon implementation of "new products".

Q. QWEST SUGGESTS THAT, WHILE A CIRCUIT ID IS NOT PROVIDED ON COVAD'S BILLING RECORDS, THERE IS A TRACKING MECHANISM THAT WAS IMPLEMENTED BY QWEST THAT SHOULD SUFFICE. CAN YOU COMMENT?

A. Let me start with the industry standards for line shared line billings. All the ILECs, except Qwest, track from order entry to billing via a circuit ID for shared loop services (e.g. line splitting, line sharing, loop splitting). The circuit ID is not mysterious or complex; it is nothing more than a tracking mechanism for the services provisioned on a particular loop.

In order to make this clear, let me provide a little background. When a carrier submits an order for a loop, Qwest returns a firm order commitment – or FOC – to that carrier. There is a field on the FOC which is identified as the ECCKT field. This ECCKT field contains the circuit ID. Typically, when Covad receives a FOC, its systems pull the circuit ID from the ECCKT field and houses that circuit ID in its databases that maintain the Covad loop inventory. Then, when a bill arrives, the Covad systems pull the circuit ID from the bill and run it against our database

inventory to make sure that it's a current line in service being used by Covad.

Q. DOES QWEST POPULATE THE ECCKT FIELD WHEN RETURNING A FOC FOR A LINE SHARED LOOP ORDER?

A. While Qwest does not support the industry standard circuit ID format, Qwest has established what is known as a Telephone Number (TN) circuit ID and populates the ECCKT field on a line shared loop order FOC with this TN circuit ID. While not a "standard" circuit ID, Covad could use this TN circuit ID to validate its line shared loop billing records if Qwest took certain actions.

Q. PLEASE EXPLAIN WHY COVAD CAN USE THE NON-STANDARD TN CIRCUIT ID.

A. Covad can use this TN Circuit ID because it is placed in the ECCKT field and meets the requirements for the ECCKT field (does not change the value content). As I mentioned before, the ECCKT field is where all the ILECs place the circuit ID and that's what Covad's systems are designed to pull when a FOC is received. What Qwest neglects to do is pass that TN circuit ID to its back end billing systems so the TN Circuit ID does not show up on the Covad bills and Covad is therefore unable to validate whether Qwest's line shared billings are correct.

Q. DOES QWEST PASS ON THE CIRCUIT ID IN THE ECCKT FIELD FOR OTHER PRODUCTS ORDERED BY CLECS?

A. Yes. The ECCKT field is utilized by Qwest for all "other" circuit ID based UNE services and whereby Qwest provides circuit ID on those bills.

Because of that, Covad can validate the other loops that show up on its UNE bills from Qwest. Its only for line shared and line split lines that Qwest unaccountably does not pass on the ECCKT field value to the billing systems.

Q. LETS TALK ABOUT WHAT QWEST DOES TRACK TO FOR SHARED LOOP SERVICES. IS COVAD ABLE TO SUPPORT QWEST'S MECHANISM?

A. As previously stated, Covad does not receive the circuit identification number for its line shared loops. Instead, Covad is provided with a "unique identification number", which is comprised of Qwest's customer's billing telephone number (i.e., the telephone number identified by Qwest as the "main" line on the customer service record, which may or may not be the telephone number in question (WTN)) plus a unique customer code that Qwest generates and which Qwest assigns to that customer (we call this the BTN number and refer to this Qwest bill deficiency as the "BTN issue"). In the absence of a circuit identification number (regardless of whether it is TN and/or circuit formatted), however, Covad is utterly unable to confirm whether Qwest is billing Covad for a loop it has actually ordered. Covad relies on the provisioned circuit identification number to reconcile its bills because that number accurately reflects the line in question, removing uniquely generated numbers that may or may not be accurately generated and/or provided for by Qwest. The BTN, by contrast, may or may not be the actual circuit provisioned. Given these variables, Covad is subjected to manually intensive review procedures to simply validate the information provided for by Qwest.

Complicating any effort by Covad to validate using the Qwest provided BTN is the fact that Covad could not build the systematic means to support these variables without documented business rules that Qwest does not house. Also, Covad would be forced to build a unique system to validate Qwest's bills, separate from the system used to validate all other ILEC bills.

Q. COVAD SUGGESTS A LONGER REVIEW PERIOD FOR BILLS MISSING UNIVERSAL SERVICE CODES (USOC). PLEASE DESCRIBE WHY MISSING USOCS NECESSITATE ADDITIONAL TIME.

A. To preface, Qwest states "Universal Service Order Codes (USOCs) also referred to as Uniform Service Order Codes and Field Identifiers (FIDs) define various network components, interfaces, products and/or services. USOCs and FIDs will allow you to request products/services from Qwest in the most efficient manner and are used to clearly identify each billable service, to *automate billing* and for provisioning." See Exhibit EB-1.

As noted by Qwest, and understood by the industry, USOCs are the means to not only identify the product/services being ordered but should track to billing such that each service provisioned can be identified and billed appropriately. That said, Qwest systems do not always provide the USOC codes and instead provide the description of the feature(s). This fact causes CLECs to manually review the descriptions provided in order to validate the appropriate billing rates.

Q. WHY ARE USOCS SO IMPORTANT IF QWEST ALSO PROVIDES A "PLAIN ENGLISH" DESCRIPTION OF A CHARGE?

A. As an initial matter, while USOC codes are unique, the plain English descriptions may or may not be unique. Yet that is not Covad's primary concern. The greatest impact to Covad (and other CLECs) results from Qwest not uniformly providing the necessary information across its three Regions. When a USOC is expected and one is not provided for by Qwest, Covad systems automatically "tag" that record for manual review because the system has been designed to validate on the USOC. Again, Covad only seeks an exception to the payment process when USOCs are not provided , so we have an opportunity to determine the most efficient means of processing the records. Qwest, on the other hand, has no motivation to improve their systems and bring them in line with industry norms so long as they are allowed to provide no USOC but demand rendered payment within a short period of time.

Q. IS THERE ANYTHING IN THE COVAD BILLING VALIDATION PROCESS THAT WOULD ALLOW IT TO GET AROUND THE LACK OF USOCS?

A. Unfortunately, no. While Covad does independently validate rates on a per circuit basis, it must reconcile by USOCs as well in order to demonstrate for legal purposes that it engages in appropriate bill validation such that its financial books and records are deemed accurate, reliable and in compliance with governing law (*i.e.*, SOX). Absent this demonstration of individual element and USOC validation, the integrity of Covad's financial books and records could be put into question.

Q. LET'S MOVE ONTO THE EXCEPTIONS FOR "NEW RATE ELEMENTS", "NEW SERVICES", OR "NEW FEATURES" NOT PREVIOUSLY ORDERED BY A CLEC. WHY SHOULD COVAD BE ALOTTED MORE TIME TO REVIEW AND RENDER PAYMENT UNDER THESE CIRCUMSTANCES?

A. When a CLEC orders new service and/or a new feature, Qwest will assess a new rate element to reflect that new service and/or new feature. In doing so, Qwest must build and implement the business rules to support that new service and/or new feature for the CLEC in question. These business rules will need to be implemented within Qwest billing systems but will also need to be available for Qwest Billing Support Representatives in the event disputes result. In a nut shell, Qwest must make changes to accommodate a CLEC that has never ordered a particular service and/or feature to be sure the billed rates are accurate. Along the same lines, a CLEC will need to implement new business rules to accommodate any changes. Allowing more time to review newly implemented services and/or features that result in new rates makes sense because both Qwest and the CLECs need to accommodate those changes. If issues result as of the newly implemented billable rate, the date certain timeframe imposed by Covad will provide the means to address without hampering the relationship with Qwest and/or Covad's end user.

Q. HAS COVAD ATTEMPTED TO USE THE CHANGE MANAGEMENT PROCESS TO RESOLVE THE CIRCUIT ID BILLING ISSUE?

A. Yes, but unfortunately to no avail. Covad issued change request # SCR100104-01 titled "provide circuit id on billing outputs for the shared loop family of products". Qwest has denied this change citing "economic infeasibility" due to their projected cost of $904,000. The denial is so vague that no one can determine the intended

changes Qwest believes need to be imposed. Covad has requested these details because as stated above, Qwest already provides the TN formatted circuit ID on the firm order confirmation (FOC) and while it doesn't pass that information to its back-end billing systems, the billing systems are already set up to receive the TN circuit ID format in the ECCKT field. The CMP governing document calls for Qwest to provide more details regarding denials of CRs, so that a possible solution can be negotiated between CLEC and Qwest, and misunderstandings can be avoided. Qwest's denial concerns Covad because there doesn't appear to be any method for determining a viable solution.

Q. PLEASE PROVIDE MORE DETAIL ABOUT THE CMP.

A. The CMP is the sole method by which CLECs can request that changes be made to Qwest systems (interfaces, backend systems and databases), products, and processes. I've attached hereto as Exhibit EB-2 the governing CMP document which spells out the scope and purpose of the CMP.

Q. SINCE COVAD AND QWEST HAVE A COMMERCIAL LINE SHARING AGREEMENT, DOESN'T THE BTN PROBLEM MOVE TO THAT AGREEMENT?

A. No, it does not. All line shared lines on the network as of October 1, 2003 are "grandfathered" in as UNEs and thus are subject to the terms and conditions of our current interconnection agreement, and once approved by the Commission, the interconnection agreement being arbitrated. Only those new lines added on or after October 1, 2003 will be subject to the terms and conditions of the commercial line sharing agreement.

Q. WOULD AN ORDER OUT OF THIS COMMISSION THAT REQUIRED ANY KIND OF CHANGE TO A QWEST PRODUCT, PROCESS OR SYSTEM SOMEHOW UNDERMINE THE CMP?

A. No. To the contrary, the CMP document clearly delineates and defines a specific category of changes called "regulatory change requests." As defined in the CMP document itself, a "regulatory CR" is "mandated by regulatory or legal entities, such as the Federal Communications Commission (FCC), a state commission/authority, or state and federal courts. Regulatory changes are not voluntary but are requisite to comply with newly passed legislation, regulatory requirements, or court rulings". Thus, the CMP clearly contemplates that Commissions will order changes to Qwest processes, products and systems, and that such changes will be effectuated via CMP. So, orders out of this Commission that require changes by Qwest in no way undermines the CMP, but rather are complementary to and a part of the CMP.

Q. IF QWEST WAS MANDATED TO PROVIDE CIRCUIT ID AND USOC INFORMATION CONSISTENTLY ON THEIR BILLING RECORDS, WOULD COVAD AGREE TO QWEST TIMEFRAME FOR PAYMENT WITHIN 30 CALENDAR DAYS?

A. Covad would be willing to support Qwest's language when the billing records contain these necessary and industry standard validation pieces. As stated above, nothing in CMP would be undermined by a mandate because those changes would be implemented via the "regulatory" change request procedures.

Q. ARE THERE OTHER ASPECTS OF QWEST'S BILLS THAT RENDER THEM DIFFICULT TO VERIFY?

A. Yes. The applicable rate (whether non-recurring or recurring) charged by Qwest on UNE bills may be incorrect, requiring an additional validation step. Even more problematic, Qwest may bill the correct monthly recurring charges, but Covad must nonetheless undertake a manual review of the rate because the USOC is the same even though the rate may differ. For example, in Arizona there are three

different zones with three different Commission-approved monthly recurring charges ("MRCs") for UNE loops. Each DS0 loop MRC is different for each zone, but the USOC for all zones is identical. Consequently, additional time is spent tracking down appropriate rates for the UNEs billed by Qwest.

Additionally, all disconnects must be researched manually and individually to make sure that the date requested is the date Qwest actually disconnected the circuit and thus stopped billing Covad. This must be done to ensure that Qwest does not bill for an entire month for a circuit that was disconnected on day 1, day 7, day 22, etc. of the particular billing cycle. Given current churn rates, Covad must manually investigate up to **** **BEGIN CONFIDENTIAL** [redacted] **END CONFIDENTIAL** **** disconnects every month.

Q. HAS COVAD ATTEMPTED TO REMEDY THE DEFICIENCIES IN QWEST'S BILLS THAT YOU HAVE IDENTIFIED?

A. Yes, we have. Our request for an extension of the payment time frames is basically a last resort. Our preference, by far, would be to receive bills that did not contain these Qwest generated deficiencies; and to receive bills that we could confidently, completely, and accurately review in a thirty day time frame. However, that is not possible today. For each and every one of the problems I have identified here, Covad has raised it either with Qwest billing personnel or through change management. And, as of the filing date of this testimony, Qwest has been unable to commit to any improvement or correction of the deficiencies and/or errors in the bills it produces.

Q. PLEASE EXPLAIN WHETHER YOU BELIEVE THE EXTENSIONS OF TIME SOUGHT BY COVAD WILL INCREASE QWEST'S LIABILITY AND EXPOSURE.

A. I don't believe they will increase Qwest's exposure in any significant way. Qwest's recurring UNE charges are billed in advance.[1] So, if you look at Qwest's proposed time frames, you find the following things: (1) CLECs must pay for thirty (30) days worth of services and UNEs on or before the 30th day of those services being provided; (2) Qwest has the right to discontinue processing orders if Covad fails to pay for thirty (30) full days worth of services on or before the 30th day after which a full month's service has been provided; and (3) Qwest has the right to disconnect existing lines if Covad fails to pay for thirty (30) days worth of services on or before the sixtieth (60) day after which a full month's service has been provided.

For the first provision, therefore, Qwest wants the monthly payment in full from Covad on or before it even provides a full month's worth of services. While thirty days may be a familiar number with respect to the payment of bills in most industries, the additional terms and conditions imposed by Qwest, as well as their billing deficiencies, make this time frame one-sided and nearly impossible to comply with. As I discussed at length above, these additional factors are not "industry standard."

For discontinuance of order processing, Qwest wants to invoke a severe business sanction from which Covad will be challenged to recover if payment for a full month's worth of services is not received on or before thirty days after

[1] *In the Matter of the Petition of Covad Communications Company for Arbitration of an Interconnection Agreement with Qwest Corporation Pursuant to 47 U.S.C. § 252(b)*; OAH Docket No. 3-2500-15908-4: MPUC Docket No. P-5692, 421/IC-04-549, Transcript of Hearings, Volume II, pp. 36-37, September 21, 2004.

providing a full month of service. And with respect to the disconnection time frames, Qwest wants the power to invoke that ultimate business sanction from which Covad likely cannot recover if payment for a full month's worth of services is not received on or before sixty days after providing a full month of service.

Q. SINCE, ACCORDING TO QWEST, EVEN THE THIRTY DAYS OPENS IT UP TO LIABILITY AND EXPOSURE, WHAT HAS QWEST DONE TO ENSURE THAT IT IS PROTECTED IN THE EVENT OF NON-PAYMENT?

A. As evidenced by the above, Qwest has little to no exposure because there are still deadlines that Covad must meet in order to continue receiving services from Qwest. Setting that aside, Qwest has stood firm on their proposal with no room for negotiation. Qwest has not attempted to provide a sufficient alternative solution(s) either in this proceeding and/or change management. Absent a Commission order adopting Covad's proposal, Qwest has no incentive to address the issues identified above.

Q. LET'S MOVE ON TO THE SECOND TIMEFRAME AT ISSUE. PLEASE EXPLAIN WHY THE QWEST PROPOSED TIME FRAME FOR DISCONTINUANCE OF ORDER PROCESSING IS UNREASONABLE.

A. To be clear, Covad's proposal requests 30 calendar days more than the Qwest proposal before Qwest can stop accepting new orders from Covad. To emphasize, these new orders are from end-users that seek Covad's services, thus Covad has the incentive to pay all undisputed bills in a timely manner. If you consider that Qwest bills recurring UNE charges in advance, Covad's proposed timeframe is especially reasonable.

It is critical to understand that all these provisions give Qwest the power to destroy, if it so chooses, Covad's business in the state of Arizona. There is no

way for Covad to recover from any wide-spread or extended cessation of its ability to place orders or from any kind of wide-spread disconnection of its existing customers. That kind of disruption to a company's business can be fatal, and there is no amount of money that can compensate Covad for that kind of disruption -- not that such money would be available, given the limitations on liability in the agreement to be approved that are not disputed between the parties. While Qwest has every right to be concerned about receiving payment to which it is legitimately entitled, that concern pales in comparison to Covad's concern about protecting the viability of its business in the event of a billing dispute.

Q. WHAT ABOUT THE "DISCONNECTION OF SERVICE" TIMEFRAME COVAD SEEKS, WHY DO YOU BELIEVE THIS IS WARRANTED?

A. Covad's proposal differs from Qwest by 30 additional days. Covad seeks the additional time to protect an end user from being disconnected unnecessarily. As previously stated, involuntary disconnections will do great harm to Covad's business and its reputation within the industry. It is therefore critical that disconnection is not used as a method to obtain leverage in billing or other disputes between the parties.

Q. WHY DOES COVAD SEEK SUCH PROTECTION? HAS THERE BEEN ANY EVIDENCE OF QWEST NON-COMPLANCE WITH BILLING DISPUTES?

A. Yes. A perfect example is Covad's dispute of DS3 UDIT billing in the state of Arizona. In June of 2002, the Arizona Commission ("ACC") approved permanent rates for Qwest's dedicated interoffice transport product – or UDIT -- (the "permanent" rates). In December 2002, ACC Staff and CLECs alerted the

Commission that the rates approved for UDIT – both DS1 and DS3 -- included entrance facilities as well as transport. In light of that error, the ACC instructed the parties to relitigate the UDIT rates in a May 2003 hearing. In October 2003, the ACC ruled that the "new" DS3 UDIT rates should be set at the old UDIT rates and that the "new" rate should be effective as of June 2002.

Approximately two months *after* the ACC concluded that there was an error in the UDIT rates and had remanded the UDIT rates back to the Administrative Law Judge for further proceedings, Covad received a demand from Qwest to pay the true up amount for its DS3 UDITs in Arizona. The true up amount was calculated by Qwest as the difference between the old, interim rates and the then disputed "permanent" rates. Because the ACC had placed the "permanent" DS3 UDIT rates at issue, Covad disputed the true up invoice on the grounds that the true up claim was premature since the "permanent" rate was going to be relitigated in May of 2003. Despite independently knowing full well that the rate was not final and was likely to be changed, and despite being reminded of that fact by Covad in its notices of dispute, Qwest continued to request payment of the true up amounts – even though Covad disputed the request for payment of a true up every single month and provided the very same clear and concise reason. It took over ten (10) months of disputing the true up invoice before Qwest acknowledged the dispute and that any claim for payment would await resolution by the ACC.

Plainly, Qwest did not consider the amount to be disputed in light of its repeatedly renewed request that Covad pay the true up amount. Under the Qwest proposal, Covad's legitimate reason for non-payment of the true up amount could

have resulted in Qwest discontinuing the processing of orders and/or actually disconnecting circuits. Under its proposal, Qwest also could have demanded a deposit from Covad and payment of a reconnect charge for those circuits that had been disconnected. In light of the magnitude of Qwest's self-help remedies, Covad needs and deserves the protection it seeks here.

Q. EXPLAIN WHY COVAD'S PROPOSED PAYMENT, ORDER DISCONTINUANCE, AND SERVICE DISCONNECTION PROVISIONS ARE REASONABLE AND SHOULD BE ADOPTED.

A. In summary, what is reasonable (and therefore should be included in the interconnection agreement) cannot be determined in the abstract. To the contrary, reasonableness must be evaluated against the task that Covad faces, and the severity of the consequences resulting from late payment, discontinuance of order processing, and disconnection of services. The Covad proposed billing time frames should be adopted because without them, Qwest is provided no incentive to address the billing deficiencies highlighted by Covad, can rapidly halt new orders sought by end-users seeking Covad services, and possibly disconnections processed in error, again impacting an end user.

It is important to keep in mind that the interconnection agreement must provide for safeguards that will allow Covad to work around situations that may benefit Qwest at Covad's expense. These safeguards are becoming ever more important as Qwest apparently is now attempting to modify its PAP obligations, and eliminate the industry forum dedicated to improvements in the performance measures (PIDs). Covad's proposed billing time frames provide that safeguard, and should be approved by the Commission.

Q. TO WHAT END WOULD COVAD PUT THE ADDITIONAL TIME IT SEEKS IN CONNECTION WITH THE DISCONTINUANCE OF ORDER PROCESSING OR DISCONNECTION OF EXISTING LINES?

A. Because of the devastating impact of these remedies on Covad's business, a top priority for Covad if it had the additional time we request would be to determine the appropriate course of action, and then prepare the appropriate documents necessary to pursue relief at the individual state or commission level. As most lawyers know, complaints and petitions generally cannot be put together overnight, and where any type of injunctive relief is sought (which would be the case if Covad were faced with a discontinuance of order processing or disconnection of services) there is a tremendous amount of work and factual and legal research that accompanies any kind of filing along these lines. In summary, therefore, Covad would use its time to determine how best to protect its interest and then take the legal/regulatory steps necessary to ensure that its business is protected to the maximum extent possible.

Q. DO YOU AGREE WITH QWEST CLAIM THAT ITS PROPOSED BILLING TIME FRAMES ARE STANDARD IN THE INDUSTRY?

A. Not in the wholesale Industry. The industry standard that Qwest talks about is really the standard that was developed for access products ordered and paid for by the large IXCs. And as the Commission well knows, the IXCs and the ILECs have had over twenty (20) years to correct errors and deficiencies in the billing media and format used for the billing of access services. There are industry standards and standard billing formats that have been in use for decades for companies ordering access services, and the years of experience and work by industry stake

holders probably have resulted in a billing process that would allow adequate billing review within a thirty day time frame.

Unfortunately, the wholesale competitive market place has not yet had the years "under its belt" to get to the same place and, consequently, additional time is required in order to permit adequate bill review. As it stands today, at least twelve (12) Covad employees have involvement in the review and verification of the monthly bills that we receive from Qwest, as well as employees of the independent contractor Covad has retained to investigate other Qwest and ILEC billing issues.

The idea that, after just a couple of years of wholesale competition, CLECs resolved all of their billing issues with Qwest in 271 proceedings is ridiculous. While that proceeding was helpful in resolving many issues with Qwest, all carriers, including Covad and Qwest, are still gaining valuable experience with respect to wholesale billing processes. Just like the legal issues surrounding the Telecommunications Act of 1996 and local competition, the billing issues will take time to completely resolve. At the time Qwest's long distance entry was considered, most carriers, including Covad, were not yet aware of the full scope of the issues surrounding bill verification with Qwest.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. This concludes my Direct Testimony, however, I anticipate filing all responsive testimony permitted by the Commission, and being presented for cross examination at the hearing on the merits.

Exhibit EB-1

Wholesale

Resources

Qwest USOC/FID Finder

- Overview
- FID Find
- USOC Search
- Product Family List

USOC and FID Find

Universal Service Order Codes (USOCs) & Field IDentifiers (FIDs) Overview - V4.0

History Log

Description

Universal Service Order Codes (USOCs) also referred to as Uniform Service Order Codes and Field Identifiers (FIDs) define various network components, interfaces, products and/or services. USOCs and FIDs will allow you to request products/services from Qwest in the most efficient manner and are used to clearly identify each billable service, to automate billing and for provisioning.

FIDs are also used to identify important attributes of service beyond those described by the USOCs.

USOCs and FIDs are standard coded data elements, developed and owned by Telcordia™ Technologies using COMMON LANGUAGE® Service Information.

Universal Service Order Codes (USOCs)

A USOC can be three or five alphanumeric characters. For example:

69J	Call Forwarding Busy Line - All Calls Unrestricted
69B1X	Call Forwarding Busy Line - In-Only Restricted

USOCs may also be referred to as Line Level USOC and/or Account Level USOCs. These are described as follows:

- Line Level USOCs - USOCs associated with a particular line or circuit. They may represent a line or circuit to which facilities are assigned or they may represent a feature associated with the line, for example:
  - U5R - Unbundled Network Element - Platform (UNE-P) Plain Old Telephone Service (POTS) Line
  - 1FB - Business POTS line, Retail or Resale
  - 1FR - Residence POTS line, Retail or Resale
  - ESM - Call Forwarding Variable
  - MBB - Voice Messaging Mailbox
  - NSD - Caller ID
- Account Level USOCs aka Non Line Level USOCs- USOCs associated with an account, for example:
  - UHR - UNE-P POTS Class of Service
  - PGOCC - Custom Choice Package
  - HYE - Centrex Plus common block

USOC Characteristics

All alphanumeric characters may be used with the following exceptions:

- The numerical number zero (0) is not used
- The alpha letter "I" is not used

Field Identifiers (FIDs)

FIDs further describe specific attributes conveying the parameters necessary to provision the product or service and consists of at least two and a maximum of four alphanumeric characters. Formatting FIDs follow USOCs and will also follow other FIDs as needed. Examples of USOC and FID combinations are as follows:

- 69J/TN NPA-NNN-NNNN (Call Forwarding Busy Line-All Calls Unrestricted on Telephone Number (TN), including the NPA)
- 69J/TN NPA-NNN-NNNN/CFNB NPA-NNN-NNNN (Call Forwarding Busy Line-All Calls Unrestricted on Telephone Number (TN), including the NPA and Call Forwarding Number Busy Line (CFNB) including the telephone number to forward to)

The first two FID characters are always alphabetic, the last two may be alphabetic or numeric. Alphabetic characters cannot appear after a numeric character. Following is an example:

Exhibit EB-1

Valid FID Formats	Invalid FID Formats
TN CFW CFNB	T4 T4T 4TN4

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Qwest USOC/FID Finder

Qwest uses USOCs and FIDs to process your service requests. Use the USOC/FID Finder as your source to identify USOC and FID details for all Qwest products and services. With the USOC/FID Finder you can perform the following:

- FID Search to review Qwest FID information.
- USOC Search for Qwest USOC information.
- Product Family List to display category listings of all Qwest Product Families and associated product offerings.

If the data or format of your USOC and/or FID is improper (e.g., exceeds maximum characters, unnatural breaks or spaces, alpha characters that should be numeric, or numeric characters that should be alpha) your service request can be delayed.

The USOC/FID Finder contains USOCs/FIDs approved by Telcordia and used by Qwest.

Refer to individual Wholesale Products and Services for specific USOCs and FIDs.

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Availability

USOCs and FIDs exist throughout Qwest's 14-state local service territory.

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Contacts

For additional information, contact your Qwest Service Manager.

Last Update: December 6, 2002

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History Log

Line #	Version - Filename	Effective Date	Change			
			Section #	Section Name	Subsection Name	Update Activity
1	Master Redlined CLEC-Qwest CMP Re-design Framework - Revised 02-07-02 – CLEAN – Version 1.0	02-07-02	All			Accepted changes to Master Redlined CLEC-Qwest CMP Redesign Framework
2	Master Redlined CLEC-Qwest CMP Re-design Framework - Revised 02-20-02 – CLEAN – Version 2.0	02-20-02	2.1	Types of Change	Regulatory Change	Added changes to Regulatory Changes section as agreed to at Feb 19 Redesign Meeting.
3	MasterRedlineCLEAN030702	03-11-02	3.1	Change Request Initiation Process	CLEC-Qwest OSS Interface Change Request Initiation Process	Added language agreed to at March 7 Redesign Meeting.
4			9.0	Prioritization	N/A	Added language agreed to at March 7 Redesign Meeting.
5			9.3	Prioritization	SCRP	Added language agreed to at March 7 Redesign Meeting.
6			5.1.6	Change to Existing Interfaces	Final Interface Technical Specifications	Added language agreed to at March 7 Redesign Meeting.
7	MasterRedlineCLEAN032702	03-27-02	3.1	Change Request Initiation Process	CLEC-Qwest OSS Interface Change Request Initiation Process	Added Reasons for Denial Language
8			3.3	Change Request Initiation Process	CLEC-Qwest OSS Interface Change Request Initiation Process	Added Reasons for Denial Language
9	MasterRedlineCLEAN040802	04-08-02	1.0	Introduction and Scope		Added language agreed to at April 4 Redesign Meeting.
10			2.0	Managing The CMP		Added language agreed to at April 4 Redesign Meeting. Moved Section to 2.0 from 7.0
11			3.0	Meetings		Moved section to 3.0 from 8.0.
12			6.0	OSS Interface Release Calendar		Added language agreed to at April 4 Redesign Meeting.
13			10.0	Prioritization		Moved Appendices to end of document
14			10.2.4	Prioritization	Late Adder	Added language agreed to at April 4 Redesign Meeting.
15	MasterRedlineCLEAN041602b	04-16-02	5.4	Change Request Initiation Process	Qwest Originated Product/Process	Added language agreed to at April 16 Redesign Meeting.

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Line #	Version - Filename	Effective Date	Change			
			Section #	Section Name	Subsection Name	Update Activity
					Changes	
16	MasterRedlineCLEAN050202	05-02-02	5.1	Change Request Process	CLEC-Qwest OSS Interface Change Request Initiation Process	Added revised language agreed to at May 2. 2002 Redesign Meeting.
17			5.5	Change Request Process	Crossover Change Requests	Added revised language agreed to at May 2. 2002 Redesign Meeting.
18			10.2.5	Prioritization	Withdrawal of Prioritized CRs	Added language agreed to at May 2. 2002 Redesign Meeting.
19			10.3	Prioritization	SCRP	Added revised language agreed to at May 2. 2002 Redesign Meeting.
20			13.0	Training	N/A	Added language agreed to at May 2. 2002 Redesign Meeting.
21	MasterRedlineCLEAN052202a	05-22-02	5.6	Change Request Process	Change Request Status Codes	Added language agreed to at May 21-22. 2002 Redesign Meeting.
22			5.7	Change Request Process	Change Request Suffixes	Added language agreed to at May 21-22. 2002 Redesign Meeting.
23	MasterRedlineCLEAN060602	06-06-02	2.5	Managing the Change Management Process	Method of Communication	Added language agreed to at June 5-6, 2002 Redesign Meeting.
24			5.1	Change Request Process	CR Initiation Process	Added language agreed to at June 5-6, 2002 Redesign Meeting.
25			5.3	Change Request Process	CLEC Product/Process Change Request Initiation Process	Added language agreed to at June 5-6, 2002 Redesign Meeting.
26			5.3	Change Request Process	CLEC Product/Process Change Request Initiation Process	Added IMA Software Development Timeline agreed to at June 5-6, 2002 Redesign Meeting.
27			5.5	Change Request Process	Postponement and Arbitration of a Product/Process Change	Added language agreed to at June 5-6, 2002 Redesign Meeting.
28			5.6, 5.7, and 5.8	Change Request Process	Multiple	Renumbered based on addition of new Section 5.5
29			16.0	Exception Process		Added language agreed to at June 5-6, 2002 Redesign Meeting.
30			Definition of Terms	Definition of Terms		Added language agreed to at June 5-6, 2002 Redesign Meeting.
31			All	All	All	Cosmetic and clarifying changes agreed to at June 5-6, 2002 Redesign Meeting.
32	MasterRedlineCLEAN061802	06-18-02	2.1	Managing the	Managing the Change	Added language agreed to at June 17-18, 2002

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Line #	Version - Filename	Effective Date	Change			
			Section #	Section Name	Subsection Name	Update Activity
				Change Management Process	Management Process Document	Redesign Meeting.
33			12.4	Production Support	Reporting Trouble to IT	Added language agreed to at June 17-18, 2002 Redesign Meeting.
34			12.5	Production Support	Severity Levels	Made changes at June 17-18, 2002 Redesign Meeting.
35			12.8	Production Support	Process Production Support	Added language agreed to at June 17-18, 2002 Redesign Meeting.
37	MasterRedlinedCLEAN071002	07-10-02	2.2	Managing the Change Management Process	Change Management Point of Contact (POC)	Added language agreed to at July 10, 2002 Redesign Meeting.
38			2.3	Managing the Change Management Process	Change Management Point of Contact (POC) List	Added language agreed to at July 10, 2002 Redesign Meeting.
39			17.0	Voting	n/a	Added language agreed to at July 10, 2002 Redesign Meeting.
40			All	All	All	Cosmetic and clarifying changes agreed to at July 10, 2002 Redesign Meeting.
41	MasterRedlinedCLEAN072302	07-23-02	10.0	Prioritization		Revised language agreed to at July 23, 2002 Redesign Meeting.
42			10.1	Prioritization	Test Environment Releases	Added language agreed to at July 23, 2002 Redesign Meeting.
43			All	All	All	Cosmetic and clarifying changes agreed to at July 23, 2002 Redesign Meeting.
44	MasterRedlinedCLEAN072602	07-26-02	1.0	Introduction and Scope		Revised language agreed to at July 26, 2002 Redesign Meeting.
45			2.4.4	Managing the Change Management Process	Implementation Obligations	Added language agreed to at July 26, 2002 Redesign Meeting.
46			5.6	Change Request Process	Comparability of Change Request Treatment	Added language agreed to at July 26, 2002 Redesign Meeting.
47			10.1	Prioritization	Test Environment Releases	Revised language agreed to at July 26, 2002 Redesign Meeting.
48	QwestWhslChgMgtDoc091302	09-13-02	All			Accepted all agreed to CLEAN-UP changes and additions from multiple Redesign Meetings.
49			2.1	Managing the Change	Managing the Change Management Process	Added language agreed to at multiple CLEAN-UP Redesign Meetings.

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Line #	Version - Filename	Effective Date	Change			
			Section #	Section Name	Subsection Name	Update Activity
				Management Process	Document	
50			2.4.4	Managing the Change Management Process	Implementation Obligations	Added language agreed to at multiple CLEAN-UP Redesign Meetings.
51			2.4.5	Managing the Change Management Process	Adherence to this CMP	Added language agreed to at multiple CLEAN-UP Redesign Meetings.
52			2.5	Managing the Change Management Process	Method of Communication	Added language agreed to at multiple CLEAN-UP Redesign Meetings.
53			3.0	Meetings		Added language agreed to at multiple CLEAN-UP Redesign Meetings.
54			5.1.2	Change Request Process	Implementation of Industry Guideline CRs	Added language agreed to at multiple CLEAN-UP Redesign Meetings.
55			5.6	Managing the Change Management Process	Comparability of Change Request Treatment	Added language agreed to at multiple CLEAN-UP Redesign Meetings.
56			16.2	Exception Process	Emergency Call/Meeting Notice to Discuss Exception Request	Added language agreed to at multiple CLEAN-UP Redesign Meetings.
57			16.3	Exception Process	Notice of Exception Request Discussion and Vote at Upcoming CMP Meeting	Added language agreed to at multiple CLEAN-UP Redesign Meetings.
58			18.0	Oversight Review Process		Added language agreed to at multiple CLEAN-UP Redesign Meetings.
59	QwestWhslChgMgtDoc100902	10-09-02	All			Added language and accepted CLEAN-UP changes and additions from 10-08-02 and 10-09-02 Redesign Meetings.
60	QwestWhslChgMgtDoc101502	10-15-02	17.0			Added language proposed by AT&T and accepted by Qwest and WorldCom on 10-15-02.
61	QwestWhslChgMgtDoc010603	01-06-03	12.0	Production Support	Request for a Production Support Change	Modified language as approved by unanimous CMP vote at December 18, 2002, Monthly CMP Product/Process Meeting
62			5.0	Change Request Process	Level 1 Process/Deliverables	Modified language as approved by unanimous CMP vote at December 18, 2002, Monthly CMP

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Line #	Version - Filename	Effective Date	Change			
			Section #	Section Name	Subsection Name	Update Activity
						Product/Process Meeting
63			5.0	Change Request Process	Level 2 Process/Deliverables	Modified language as approved by unanimous CMP vote at December 18, 2002, Monthly CMP Product/Process Meeting
64			5.0	Change Request Process	Level 3 Process/Deliverables	Modified language as approved by unanimous CMP vote at December 18, 2002, Monthly CMP Product/Process Meeting
65			5.0	Change Request Process	Level 4 Process/Deliverables	Modified language as approved by unanimous CMP vote at December 18, 2002, Monthly CMP Product/Process Meeting
66	QwestWhslChgMgtDoc053003	05-30-03	8.0	Change to an Existing OSS Interface		Modified language as approved by unanimous CMP vote at May 27, 2003, Ad Hoc CMP Product/Process Meeting
67	QwestWhslChgMgtDoc061803	06-18-03	5.0	Change Request Process	Systems Change Request Origination Process	Modified language as approved by unanimous CMP vote at the June 18, 2003, CMP Product/Process Meeting
68	QwestWhslChgMgtDoc121103	12-11-03	5.1.4, 10.3.1, 10.4	Change Request Process, Prioritization	Systems Change Request Origination Process, Prioritization Review, Special Change Request Process	Modified language as approved by unanimous CMP vote at September 17, 2003, CMP Product/Process Meeting
69	QwestWhslChgMgtDoc041904	04-19-04	3.0	Change Management Process Meetings		Added language agreed to at the January 2004 CMP Product/Process Meeting
			12.4 12.5	Production Support	Reporting Trouble to IT Severity Levels	Added language agreed to at the January 2004 CMP Product/Process Meeting
			12.7	Production Support	Notification Intervals	Added language agreed to at the January 2004 CMP Product/Process Meeting
			12.3	Production Support	Request for a Production Support Change	Added language around making a software patch or event notification or initiate a meeting to discuss the patch

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Qwest Wholesale Change Management Process Document -

CHANGE MANAGEMENT PROCESS (CMP) FOR LOCAL SERVICES

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CHANGE MANAGEMENT PROCESS (CMP)

1.0 INTRODUCTION AND SCOPE

This document defines the processes for change management of Operations Support Systems (OSS) Interfaces, products and processes (including manual) as described below. CMP provides a means to address changes that support or affect pre-ordering, ordering/provisioning, maintenance/repair and billing capabilities and associated documentation and production support issues for local services (local exchange services) provided by Competitive Local Exchange Carriers (CLECs) to their end users. This CMP is applicable to Qwest's 14 state in-region serving territory.

This CMP is managed by CLEC and Qwest Points of Contact (POCs) each having distinct roles and responsibilities. The CLECs and Qwest will hold regular meetings to exchange information about the status of existing changes, the need for new changes, what changes Qwest is proposing, how the process is working, etc. The process also allows for escalation to resolve disputes, if necessary.

Qwest will track changes to OSS Interfaces, products and processes. This CMP includes the identification of changes and encompasses, as applicable, Design, Development, Notification, Testing, Implementation, Disposition of changes, etc. (See Change Request Status Codes, Section 5.8). Qwest will process any such changes in accordance with this CMP.

In cases of conflict between the changes implemented through this CMP and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party to such interconnection agreement. In addition, if changes implemented through this CMP do not necessarily present a direct conflict with a CLEC interconnection agreement, but would abridge or expand the rights of a party to such agreement, the rates, terms and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party to such agreement.

This CMP is dynamic in nature and, as such, is managed through the regularly scheduled meetings. The parties agree to act in Good Faith in exercising their rights and performing their obligations pursuant to this CMP. This document may be revised through the procedures described in Section 2.0.

Any opinions expressed at the CMP meetings by representatives of government agencies such as state Public Utilities Commissions (PUC), Federal Communications Commission (FCC), and the Department of Justice (DOJ) do not bind such government agencies.

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Throughout this CMP document, terms such as "agreement" or "consensus" are used to identify instances when participants attempt to informally arrive at a unanimous decision by the CMP group at a noticed CMP Meeting. At any time, when the parties cannot informally reach a decision, the parties may continue to work together to reach resolution or conduct a vote in accordance with Section 17.0.

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2.0 MANAGING THE CHANGE MANAGEMENT PROCESS

2.1 Managing the Change Management Process Document

Proposed modifications to this CMP framework shall be originated by a change request submitted by CLEC or Qwest in accordance with Section 5.0. Acceptance of such changes will be discussed at a regularly scheduled Monthly CMP Product/Process Meeting.

The originator of the change will send proposed redlined language and the reasons for the request with the change request at least fourteen (14) days in advance of the Monthly CMP Product/Process Meeting. The request originator will present the proposal to the CMP participants. The parties will develop a process for input into the proposed change including when the vote will be taken. Incorporating a change into this CMP requires unanimous agreement using the Voting Process, as described in Section 17.0. Each CMP change request will be assigned a CR number that contains a suffix of "CM" and will be included in the Monthly CMP Product/Process Meeting distribution package. The CMP change request and redlined language will be included in the Monthly CMP Product/Process Meeting distribution package and the CMP change request will be identified as a proposed change to the CMP framework on the agenda. The requested change will be reviewed at a Monthly CMP Product/Process Meeting and voted on no earlier than the following CMP Product/Process meeting. The agenda for the Monthly CMP Product/Process Meeting, at which the vote will be taken, will indicate that a vote will be taken.

There will be a standing agenda item for each monthly CMP Meeting for discussion about issues relating to the operation and effectiveness of CMP. This discussion is intended to be open and receptive to all input with the goal of constantly evaluating and improving this CMP.

2.2 Change Management Point-of-Contact (POC)

Qwest and each CLEC will designate primary, secondary, and, if desired, tertiary change management POC(s), who will serve as the official designees for matters regarding this CMP. CLECs and Qwest will exchange primary, secondary and tertiary POC information including items such as:

- Name
- Title
- Company
- Telephone number
- E-mail address
- Fax number
- Cell phone/Pager number
- POC designation (e.g., primary, secondary, or tertiary)

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2.3 Change Management POC List

Primary, secondary and tertiary CLEC and Qwest POCs will be included in the Qwest maintained POC list. It is the CLEC POC's responsibility to notify Qwest of any POC changes at http://www.qwest.com/wholesale/cmp/ppform.html. If Qwest makes a Primary POC change it will follow the process as described in Section 5.4.3. The list will be posted on the Qwest CMP Web site and may include other contacts.

2.4 Qwest CMP Responsibilities

2.4.1 CMP Manager

The Qwest CMP Manager is the Qwest Product/Process POC and is responsible for properly processing submitted CRs, conducting the Monthly CMP Product/Process Meeting, assembling and distributing the meeting distribution package, and ensuring minutes are written and distributed in accordance with the agreed-upon timeline.

The Qwest CMP Manager is the Qwest Systems POC and is responsible for properly processing submitted CRs, conducting the Monthly CMP Systems Meeting, assembling and distributing the meeting distribution package, and ensuring minutes are written and distributed in accordance with the agreed-upon timeline. The CMP Manager also distributes the list of CRs eligible for prioritization to Qwest and the CLECs for ranking, tabulates the rankings, and forwards the resulting prioritization of the CRs to Qwest and the CLECs. In addition, the CMP Manager is responsible for coordinating the publication of the Qwest OSS Interface Release Calendar, as described in Section 6.0.

2.4.2 Change Request Project Manager (CRPM)

The Qwest CRPM manages CRs throughout the CMP CR lifecycle. The CRPM is responsible for obtaining a clear understanding of exactly what deliverables the CR originator requires to close the CR, arranging the CR clarification meetings and coordinating necessary Subject Matter Experts (SMEs) from within Qwest to respond to the CR, and coordinating the participation of the necessary SMEs in the discussions with the CLECs.

2.4.3 Escalation/Dispute Resolution Manager

The Escalation/Dispute Resolution Manager is responsible for managing escalations, disputes and postponements in accordance with the CMP Escalation, Dispute Resolution and Postponement Processes. (See Sections 14.0, 15.0 and 5.5)

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2.4.4 Implementation Obligations

When Qwest commits to make a change pursuant to CMP, Qwest will review and revise internal and external documentation, as needed, to ensure that the change is appropriately reflected. Qwest will conduct training to communicate the changes to all appropriate Qwest personnel so that they are made aware of relevant changes. If Sections 5.0, 7.0, 8.0 or 9.0 require notification of the change, such notification will be provided in accordance with that section and will include references to external Qwest documentation that will be modified to reflect the change, if applicable. All of the forgoing activities will take place by the implementation date of the change.

2.4.5 Adherence to this CMP

As a general rule, if a CLEC indicates that Qwest is not following this CMP, and Qwest agrees, Qwest will correct the situation by following the process. If Qwest has failed to follow this CMP for a particular change, and is not able to withdraw the change and follow the applicable process, then Qwest and CLECs must unanimously agree on a different manner to correct the situation. If Qwest and the CLECs attempt to, but do not agree that a process was not followed or cannot agree on a manner to correct the situation, any CLEC may pursue any appropriate process available in this CMP (e.g., production support, escalation, dispute resolution, oversight committee).

2.5 Method of Communication

The method of communication is e-mail with supporting information posted to the Web site when applicable (see Section 3.3 Qwest Wholesale CMP Web Site). Communications sent by e-mail resulting from CMP will include in the subject line "CMP". E-mail communications regarding document changes will include direct Web site links to the related documentation. All Notifications are sent as "mailouts" and are distributed to all those who subscribe to such notifications at http://www.qwest.com/wholesale/notices/cnla/maillist.html.

Redlined PCATs and Technical Publications associated with product, process, and systems changes will be posted to the Qwest CMP Document Review Web site, http://www.qwest.com/wholesale/cmp/review.html. For the duration of the agreed upon comment period as specified in this CMP, CLECs may submit comments on the proposed documentation change. At the Qwest CMP Document Review Web site, CLECs may submit their comments on a specific document by selecting the "Submit Comments" link associated with the document. The "Submit Comments" link will take CLECs to an HTML comment template. If for any reason the "Submit" button on the site does not function properly, CLECs may submit comments to cmpcomm@qwest.com. After the conclusion of the applicable CLEC comment period, Qwest will aggregate all CLEC comments with Qwest responses and distribute to all CLECs via Notification e-mail within the applicable period.

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In some instances, a CLEC or Qwest may wish to include proprietary information in a CR. To do this the CLEC or Qwest must identify the proprietary information with bracketed text, in all capitals, preceded and followed by the words "PROPRIETARY BEGIN" and "PROPRIETARY END," respectively. Qwest will blackout properly formatted proprietary information when the CR is posted to the CR Database and distributed in the CMP Monthly Meeting distribution packet.

If a CLEC or Qwest wishes to ask a question, submit a comment, or provide information that is of a proprietary nature, the CLEC or Qwest must communicate directly with the CMP Manager via e-mail, cmpcr@qwest.com. Such e-mails must have a subject line beginning with PROPRIETARY.

This CMP contains references to required notifications. Such references typically identify specific information that must be included in such notifications. Such information is not an exclusive list. Qwest will use reasonable efforts to include such other information in its possession that may be useful in aiding CLECs to understand the scope and purpose of the notification.

2.6 CMP Relationship with Management of Performance Indicator Definitions (PIDs)

Qwest Performance Indicator Definitions (PIDs) have been established through collaboration among Qwest, CLECs and state public utilities commissions in a forum known as the Regional Oversight Committee Technical Advisory Group (ROC TAG). This activity was performed in order to test Qwest's performance in connection with Qwest's application to obtain approval under Section 271 of the Telecommunications Act of 1996. The parties anticipate that the ROC TAG (or similar industry group separate from the CMP body) will continue in some form after approval of Qwest's Section 271 application. The parties expect that this industry group will be responsible for change management of the Qwest PIDs (the "PID Administration Group").

The parties acknowledge that the operation of PIDs may be impacted by changes to Qwest OSS Interfaces, products or processes that are within the scope of CMP. Conversely, Qwest OSS Interfaces, products or processes may be impacted by changes to, or the operation of, PIDs that are within the scope of the PID Administration Group. As a result, efficient operation of this CMP requires communication and coordination, including the establishment of processes, between the PID Administration Group and the CMP body.

The parties recognize that if an issue results from CMP that relates to the PIDs (e.g., Qwest denies a CR with reference to PIDs, discussion of PID administration is needed in order to implement a CR, etc.), any party to this CMP may take the issue to the PID Administration Group for discussion and resolution as appropriate under the procedures for that Group. At the time any party brings such an issue to the PID Administration Group, such party shall notify Qwest and Qwest will distribute an e-mail notification to the CMP body. Qwest shall also distribute to the CMP body all correspondence with the PID Administration Group relating to the

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issue at the time such correspondence is exchanged with the PID Administration Group (if Qwest is not copied on such correspondence, the involved CLEC will forward such correspondence to Qwest for distribution to the CMP body). Qwest or an interested CLEC will bring any resolution or recommendation from the PID Administration Group relating to such issues to the CMP body for consideration in resolving related CMP issues.

It is possible that the PID Administration Group will identify issues that relate to CMP. In that case, the CMP body would expect the PID Administration Group (or a party from that group) to bring such issues to the CMP body for resolution or a recommendation. Such issues may be raised in the form of a CR, but may be raised in a different manner if appropriate. Qwest or an interested CLEC will return to the PID Administration Group any resolution or recommendation from the CMP body on such issues. Qwest and CLECs participating in the PID Administration Group agree that they will propose, develop, and adopt processes for the PID Administration Group that will enable the coordination called for in this Section. One such process may include joint meetings, on an as needed basis, of the PID Administration Group and the CMP body to address issues that affect both groups.

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3.0 CHANGE MANAGEMENT PROCESS MEETINGS

Change Management Process meetings will be conducted on a regularly scheduled basis, at least two (2) consecutive days on a monthly basis, unless other arrangements are agreed upon by the CLECs and Qwest. Meeting participants can choose to attend meetings in person or participate by conference call.

Meetings are held to review, manage the implementation of Product/Process and System changes, and address Change Requests. Qwest will review the status of all applicable Change Requests. The meeting may also include discussions of Qwest's OSS Interface Release Calendar.

CLEC's request for additional agenda items and associated materials must be submitted to Qwest at least five (5) business days by noon (MT) in advance of the meeting. Qwest is responsible for distributing the agenda and associated meeting materials and will be responsible for preparing, maintaining, and distributing meeting minutes. Attendees with any walk-on items should bring hard copy materials of the walk-on items to the meeting and should, at least two (2) hours prior to the meeting, provide copies of such materials electronically (soft copy) to the CMP Manager, cmpcr@qwest.com, for distribution to all parties.

All attendees, whether in person or by phone, must identify themselves and the company they represent.

Additional meetings may be held at the request of Qwest or any CLEC. Meeting notification must contain an agenda plus any supporting meeting materials. Notification for these meetings will be distributed at least five (5) business days prior to their occurrence. Qwest will record and distribute meeting minutes, unless otherwise noted in this CMP.

3.1 Meeting Materials (Distribution Package) for Monthly Change Management Process Meetings

Meeting materials will include the following information:

- Meeting Logistics
- Minutes from previous meeting
- Agenda
- Change Requests and responses, as applicable
  - New/Active
  - Updated
- Issues, Action Items Log and associated statuses
- Release Summary, as applicable
- OSS Interface Release Calendar, as described in Section 6.0

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- Date TBD Trouble Tickets, as described in Section 12.3
- Any other material to be discussed

Qwest will provide Meeting Materials (distribution package) electronically, by noon (MT), three (3) business days prior to the Monthly CMP Meeting. In addition, Qwest will provide hard copies of the distribution package at the Monthly CMP Meeting.

3.2 Meeting Minutes for Change Management Process Meetings

Qwest will take minutes. Qwest will summarize discussions in meeting minutes and include any revised documents such as issues, action items and statuses.

Minutes will be distributed to meeting participants for comments or revisions no later than five (5) business days by noon (MT) after the meeting. CLEC comments will be provided by noon (MT) two (2) business days after receiving draft minutes to the Qwest CMP Manager, cmpcr@qwest.com. Revised minutes, if CLEC comments are received, will be posted to the CMP Web site within nine (9) business days by noon (MT) after the meeting.

3.3 Qwest Wholesale CMP Web Site

To facilitate access to CMP documentation, Qwest will maintain CMP information on its Web site. The Web site should be easy to use and will be updated in a timely manner. The Web site will be a well organized central repository for CLEC notifications and CMP documentation. Active documentation, including meeting materials (distribution package), will be maintained on the Web site. Change Requests and notifications will be identified in accordance with the agreed upon naming conventions to facilitate ease of identification. Qwest will maintain closed and old versions of documents on the Web site's Archive page for 18 months before storing off line. Information that has been removed from the Web site can be obtained by contacting the Qwest CMP Manager, cmpcr@qwest.com. At a minimum, the CMP Web site will include:

- Current version of the Qwest Wholesale Change Management Process Document
- OSS Interface Release Calendar
- OSS Interface hours of availability
- Links to related Web sites, such as IMA EDI, IMA GUI, CEMR, Document Review and Notifications
- Change Request Form and instructions to complete form
- Submitted and open Change Requests and the status of each, including written responses to CLEC inquiries
- Meeting (formal and informal) information for Monthly CMP Meetings and interim meetings or conference calls, including descriptions of meetings and participants, agendas, minutes, sign-up forms, and schedules, if applicable
- Interactive CR Report
- Meeting materials (distribution package)

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- CLEC Notifications and associated requirements
- Directory to CLEC Notifications for the month
- Business rules, SATE test case scenarios Technical Specifications, and user guides will be provided via links on the CMP Web site
- Contact information for the CMP POC list, including CLEC, Qwest and other participants (with participant consent to publish contact information on Web page)
- Redlined PCAT and Technical Publications - see Section 2.5
- Instructions for receiving CMP communications – see Section 2.5

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4.0 TYPES OF CHANGE

A Change Request must be within the scope of CMP and will fall into one of the following classifications. Types of Changes apply to Systems and Product/Process.

4.1 Regulatory Change

A Regulatory Change is mandated by regulatory or legal entities, such as the Federal Communications Commission (FCC), a state commission/authority, or state and federal courts. Regulatory changes are not voluntary but are requisite to comply with newly passed legislation, regulatory requirements, or court rulings. Either the CLEC or Qwest may originate the Change Request.

4.2 Industry Guideline Change

An Industry Guideline Change implements Industry Guidelines. Either Qwest or the CLEC may originate the Change Request and these changes are subject to the same processes under this CMP as Qwest and CLEC Originated Changes. These industry guidelines are defined by:

- Alliance for Telecommunications Industry Solutions (ATIS) sponsored
- Ordering and Billing Forum (OBF)
- Local Service Ordering and Provisioning Committee (LSOP)
- Telecommunications Industry Forum (TCIF)
- Electronic Commerce Inter-exchange Committee (ECIC)
- Electronic Data Interchange Committee (EDI)
- American National Standards Institute (ANSI)

4.3 Qwest Originated Change

A Qwest Originated Change is originated by Qwest and does not fall within the changes listed above.

4.4 CLEC Originated Change

A CLEC Originated Change is originated by the CLEC and does not fall within the changes listed above.

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5.0 CHANGE REQUEST PROCESS

5.1 CLEC-Qwest OSS Interface Change Request Process

A CLEC or Qwest seeking to change an existing OSS Interface, to establish a new OSS Interface, or to retire an existing OSS Interface must submit a Change Request (CR). A Change Request originator will complete and e-mail a completed Change Request (CR) Form to the Qwest CMP Manager, cmpcr@qwest.com, in accordance with the instructions set forth in the Qwest Wholesale CMP Web site located at the following URL: http://www.qwest.com/wholesale/cmp/index.html.

The CR Process supports Regulatory, Industry Guideline, CLEC originated and Qwest originated changes. The process for Regulatory changes will be managed as described in Section 5.1.1, Section 5.1.2 and Section 5.1.3.

5.1.1 Regulatory Change Request

Qwest or any CLEC may submit Regulatory CRs. The party submitting a Regulatory CR must also include sufficient information to justify the CR being treated as a Regulatory CR in the Description of Change section of the CR Form. Such information must include specific references to regulatory or court orders or legislation as well as dates, docket or case numbers, page or paragraph numbers and the mandatory or recommended implementation dates, if any. All Regulatory CRs initially must be submitted as systems CRs, including when the Regulatory CR clearly is for a product/process change, and will be introduced at the Monthly CMP Systems Meeting. If the Regulatory CR originator seeks to establish that the CR should be implemented by a manual process, the originator must so indicate on the CR Form and include as much information supporting the application of the exception as practicable.

Qwest will send CLECs a notification when it posts Regulatory CRs to the Web site and identify when comments are due and when a vote is to be taken, as described below. Regulatory CRs will also be identified in the Monthly CMP Systems Meeting distribution package.

Not later than eight (8) business days prior to the Monthly CMP Systems Meeting, any party objecting to the classification of such CR as Regulatory must submit a statement to the CMP Manager, cmpcr@qwest.com, documenting reasons why the objecting party does not agree that the CR should be classified as a Regulatory change. Regulatory CRs may not be presented as walk-on items.

If Qwest or any CLEC has objected to the classification of a CR as Regulatory, that CR will be discussed at the next Monthly CMP Systems Meeting. At that meeting, Qwest and the CLECs will conduct a vote under Section 17.0 to determine whether there is unanimous agreement that the CR is a Regulatory change. If Qwest or any CLEC does not agree that the CR is Regulatory, the CR will be treated as a non-Regulatory CR and prioritized, if applicable, with the CLEC originated and Qwest originated CRs, unless and until the CR is declared to be Regulatory through the Dispute Resolution Process. (See Section 15.0) Final determination of

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CR type will be made by the CLEC and Qwest POCs at that Monthly CMP Systems Meeting, and documented in the meeting minutes.

5.1.2 Implementation of Regulatory CRs

As a general rule, a Regulatory Change will be implemented by mechanization unless all parties agree otherwise, as described below.

For each Regulatory CR, Qwest will provide a cost analysis for both a manual and a mechanized solution. The cost analyses will include a description of the work to be performed and any underlying estimates that Qwest has performed associated with those costs. Qwest will also provide an estimated Level of Effort expressed in terms of person hours required for the mechanized solution. The cost analyses will be based on factors considered by Qwest, which may include volume, number of CLECs, technical feasibility, parity with retail, or effectiveness/ feasibility of a manual process.

The Regulatory CR will be implemented by a manual solution if there is a Majority vote, as described in Section 17.0, at the Monthly CMP Systems Meeting in favor of one of the following exceptions.

A. The mechanized solution is not technically feasible.

or

B. There is a significant difference in the costs for the manual and mechanized solutions. Cost estimates will allow for direct comparisons between solutions using comparable methodologies and time periods.

Any party that desires to present information to establish an exception may do so at the Monthly Systems CMP Meeting when the implementation plan is presented.

Once a Regulatory CR has been agreed upon to be implemented by a manual solution, the CR will be, from that point forward, tracked as a product/process CR through the Monthly CMP Product/Process Meetings. (See Section 5.7)

If Qwest is unable to fully implement a mechanized solution in the first Release that occurs after the CMP participants agree that a change is a Regulatory CR, Qwest's implementation plan for the mechanized solution may include the short-term implementation of a manual work-around until the mechanized solution can be implemented. In that situation, a single systems Regulatory CR will be used for the implementation of both the manual and mechanized changes. Qwest will continue to work that Regulatory CR until the mechanized solution is implemented.

If a Regulatory CR is implemented by a manual process and later it is determined that a change in circumstance warrants a mechanized solution, Qwest or any CLEC may submit a new systems CR which must include evidence of the change in circumstance, such as an estimated

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volume increase or changes in technical feasibility, and the number of the CR that was implemented using a manual process. The CR originator may request that the new CR be treated as a Regulatory CR. If Qwest or any CLEC does not agree to treat the new CR as a Regulatory CR, it will be treated as a Qwest or CLEC originated change.

Any party that disagrees with the majority decision regarding Exceptions A and B may initiate the Dispute Resolution Process. (See Section 15.0)

5.1.3 Industry Guideline Change Request

Industry Guideline CRs will be submitted as Systems CRs, but if it is determined they should be implemented as a Product/Process change, the CR will follow the Crossover process as documented in Section 5.7. The party submitting the Industry Guideline CR must identify on the CR Form that the CR should be designated an Industry Guideline CR and identify the industry forum that recommended that change. The party submitting an Industry Guideline CR must also include sufficient information to justify the CR being treated as an Industry Guideline CR in the Description of Change section of the CR Form. Such information must include specific references to the industry forum issue or recommendation and the recommended implementation date, if any.

5.1.4 Systems Change Request Origination Process

If a CLEC or Qwest wants Qwest to change, introduce or retire an OSS Interface, the originator will e-mail a Change Request (CR) Form to the Qwest CMP Manager, cmpcr@qwest.com. No later than two (2) business days after Qwest receives the CR, the Qwest CMP Manager reviews the CR for completeness, and requests additional information from the CR originator, if necessary.

Once the CR is complete:

- The Qwest CMP Manager will assign a CR Number, and log the CR into the CMP database
- The Qwest CMP Manager sends acknowledgement of receipt to the CR originator and updates the CMP database.

Within two (2) days after acknowledgement:

- The CMP Manager assigns a Change Request Project Manager (CRPM) and identifies the appropriate Director responsible for the CR.
- The Qwest CMP Manager posts the valid CR to the CMP Web site via Qwest's interactive report. The report will contain the CR details, originator identity, assigned CRPM, assigned CR Number and, when practicable, the designated Qwest SME and associated Director.
- The CRPM obtains from the Director the names of the assigned Subject Matter Expert(s) (SME)
- The CRPM will provide a copy of the detailed CR report to the CR originator which includes the following information:
  - Description of CR
  - Originating CLEC

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- Assigned CRPM contact information
- Assigned CR number
- Designated Qwest SMEs and associated director(s)
- Status of the CR (e.g., Submitted)

Within eight (8) business days after receipt of a complete CR, the CRPM coordinates and holds a clarification meeting with the CR originator and Qwest's SME(s). If the originator is not available within the above specified time frame, then the clarification meeting will be held at a mutually agreed upon time. Qwest may not provide a response to a CR until a clarification meeting has been held. The CR originator may invite representatives from other companies to participate on the clarification call. Such participation is not intended to replace the presentation of the CR at the Monthly CMP Meeting.

At the clarification meeting, Qwest and the originator will review the submitted CR, validate the intent of the originator's CR, clarify all aspects, identify all questions to be answered, and determine deliverables Qwest must produce in order to close the CR. The originator should provide, in the CR, as much detail as possible. After the clarification meeting has been held, the CRPM will document and issue meeting minutes within five (5) business days.

CRs received fourteen (14) calendar days prior to the next scheduled Monthly CMP Systems Meeting will be presented at that Monthly CMP Systems Meeting for clarification from all CLECs participating in the Monthly CMP Systems Meeting.

At the Monthly CMP Systems Meeting, the originator will present the CR and provide any business reasons for the CR. Items or issues identified during the previously held clarification meeting will be relayed. CLECs participating in the Monthly CMP Systems Meeting will be given the opportunity to comment on the CR and provide additional clarifications. If appropriate, Qwest's SME(s) will identify options and potential solutions to the CR. Clarifications and/or modifications related to the CR will be incorporated into the evaluation of the CR.

CRs that are not submitted fourteen (14) calendar days prior to the Monthly CMP Systems Meeting may be introduced at that Monthly CMP Systems Meeting as walk-on items. The Originating CLEC will present the CR and participating CLECs will be allowed to provide comments to the CR. Qwest will provide a status of the CR.

Qwest will develop a draft response based on the CR discussion at the Monthly CMP Systems Meeting. Prior to the next scheduled Monthly CMP Systems Meeting the CRPM will post responses to systems CRs to the CMP database. The response will be made available via the interactive reports and the distribution package for the Monthly CMP Systems Meeting. Qwest will conduct a walk through of the response and participating CLECs will be provided the opportunity to discuss, clarify and comment on Qwest's Response. Qwest's Responses will be either:

- "Accepted" (Qwest will implement the request) with position stated, or

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- "Denied" (Qwest will not implement the request) with basis for the denial and a detailed explanation, including reference to substantiating material. OSS Interface Change Request may be denied for one or more of the following reasons:
  - Technologically not feasible—a technical solution is not available
  - Regulatory ruling/Legal implications—regulatory or legal reasons prohibit the change as requested, or if the request benefits some CLECs and negatively impact others (parity among CLECs) (Contrary to ICA provisions)
  - Outside the Scope of the Change Management Process—the request is not within the scope of the Change Management Process (as defined in this CMP), seeks adherence to existing procedures, or requests for information
  - Economically not feasible—low demand, cost prohibitive to implement the request, or both
  - The requested change does not result in a reasonably demonstrable business benefit (to Qwest or the requesting CLEC) or customer service improvement

Qwest will not deny a CR solely on the basis that the CR involves a change to back-end systems. Qwest will apply these same concepts to CRs that Qwest originates. The Special Change Request Process (SCRP) (Section 10.4) may be invoked if a CR was denied as economically not feasible.

Based on the comments received from the Monthly CMP Systems Meeting, Qwest may revise its response and issue a revised draft response at the next Monthly CMP Systems Meeting.

If any CLEC does not accept Qwest's response, any CLEC may elect to escalate or dispute the CR in accordance with the agreed upon CMP Escalation Process or Dispute Resolution Process. (Sections 14.0 and 15.0) If the Originator does not agree with the determination to escalate or pursue dispute resolution, it may withdraw its participation from the CR and any other CLEC may become responsible for pursuing the CR Escalation upon providing written notification to the Qwest CMP Manager, cmpcr@qwest.com. The CR will be assigned an escalation suffix and remain an active CR. Qwest will note in the status history of the interactive reports that the CR has been escalated. However, the CR status will reflect the stage of the CR as it progresses through the CR lifecycle.

If any CLEC does not accept Qwest's response and does not intend to escalate or dispute at the present time, it may request Qwest to status the CR as 'Deferred.' The CR will remain as Deferred and any CLEC may re-activate the CR at a later date.

At the last Monthly CMP Systems Meeting before Prioritization, Qwest will facilitate the presentation of all CRs eligible for Prioritization. In order for a CR to be eligible for prioritization in the upcoming release, it must be presented at least one (1) month prior to the Prioritization Review meeting in accordance with Section 10.3.1. At this meeting Qwest will provide a high level estimate of the Level of Effort of each CR and the estimated total capacity of the Release. This estimate will be an estimate of the number of person hours required to incorporate the CR into the Release. Ranking will proceed, as described in Section 10.0, Prioritization. The results of the ranking will produce an Initial Prioritization List.

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Pursuant to this CMP, Qwest may develop a temporary manual solution to a mechanized change identified in an active systems CR. In these situations, Qwest will open a second systems CR with the same number as the original CR and a "MN" suffix. Qwest will process this "MN" CR as a systems CR through its entire life cycle. During this time the original systems CR will remain open and follow the appropriate systems CR process. The temporary manual solution will remain available at least until closure of the associated systems CR. If possible, all or part of the temporary manual solution can be reintroduced in Production Support if a manual workaround is required. A new CR is not required to revert to the temporary manual solution.

5.2 CLEC-Qwest OSS Interface Change Request Lifecycle

A CLEC or Qwest may elect to withdraw a CR that has been prioritized for an OSS Interface Release, in accordance with Section 10.3.5. Based on the Initial Prioritization List, Qwest will begin its development cycle that includes the milestones listed below.

5.2.1 Business and Systems Requirements

Qwest engineers define the business and functional specifications during this phase. The specifications are completed on a per candidate basis in priority order. During business and system requirements, any candidates which have affinities and may be more efficiently implemented together will be discussed. Candidates with affinities are defined as candidates with similarities in functions or software components. Qwest will present, at the Monthly CMP Systems Meeting, any complexities, changes in candidate size, or other concerns that may arise during business or system requirements, which would impact the implementation of the candidate.

During the business and systems requirement efforts, CRs may be modified or new CRs may be generated (by CLECs or Qwest), with a request that the new or modified CRs be considered for addition to the Initial Prioritization List (late added CRs). If there is a unanimous votes (see Section 17.0) to consider the late added CRs for addition to the Initial Prioritization List, Qwest will size the CR's requirements work effort. If the requirements work effort for the late added CRs can be completed by the end of system requirements, the candidate list and the new CRs will be prioritized by CLECs in accordance with the agreed upon Ranking of Later Added CR process (see Section 10.3.4). If the requirements work effort for the late added CRs cannot be completed by the end of system requirements, the CR will not be eligible for the Release and will be returned to the pool of CRs that are available for prioritization in the next OSS Interface Release. If packaging has already been presented as described in 5.2.2, any party seeking to submit a late-added CR must follow the Exception process.

5.2.2 Packaging

At the conclusion of system requirements, Qwest will present packaging option(s) for implementing the release candidates, including a package of only the prioritized candidates in order. Packaging options are defined as different combinations of candidates proposed for continuing through the next stage of development. Packaging options may not exist for the

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Release; *i.e.*, there may only be one straightforward set of candidates to continue working through the next stage of development. Options may be identified due to:

- affinities in candidates
- resource constraints which prevent some candidates from being implemented but allow others to be completed

Qwest will provide an updated estimate of the Level of Effort for each CR and the estimated total capacity of the Release. If more than one option is presented, a vote will be held within two (2) days after the meeting on the options. The packaging option with the largest number of votes will continue through the design phase of the development cycle.

5.2.3 Design

Qwest engineers define the architectural and code changes required to complete the work associated with each candidate. The design work is completed on the candidates, which have been packaged.

5.2.4 Commitment

After design, Qwest will present a commitment list of CRs that can be implemented. Qwest will provide an updated Level of Effort for each CR and the estimated total capacity of the Release. These candidates become the committed candidates for the Release.

5.2.5 Code & Test

Qwest engineers will perform the coding and testing required by Qwest to complete the work associated with the committed candidates. The code is developed and baselined before being delivered to system test. A system test plan (system test cases, costs, schedule, test environment, test data, etc.) is completed. The system is tested for meeting business and system requirements, certification is completed on the system readiness for production, and pre-final documentation is reviewed and baselined. If, in the course of the code and test effort, Qwest determines that it cannot complete the work required to include a candidate in the planned Release, Qwest will discuss options with the CLECs in the next Monthly CMP Systems Meeting. Options can include either the removal of that candidate from the list or a postponement in the Release date to incorporate that candidate. If the candidate is removed from the list, Qwest will also advise the CLECs whether or not the candidate could become a candidate for the next Point Release, with appropriate disclosure as part of the current Major Release of the OSS Interface. Alternatively, the candidate will be returned to the pool of CRs that are available for prioritization in the next OSS Interface Release.

5.2.6 Deployment

During the deployment phase, Qwest representatives from the business and operations review and agree the system is ready for full deployment. Qwest deploys the Release and initiates and conducts production support .

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When Qwest has completed development of the OSS Interface change, Qwest will release the OSS Interface functionality into production for use by the CLECs.

Upon implementation of the OSS Interface Release, the CRs will be updated to CLEC test and presented for closure at the next Monthly CMP Systems Meeting.

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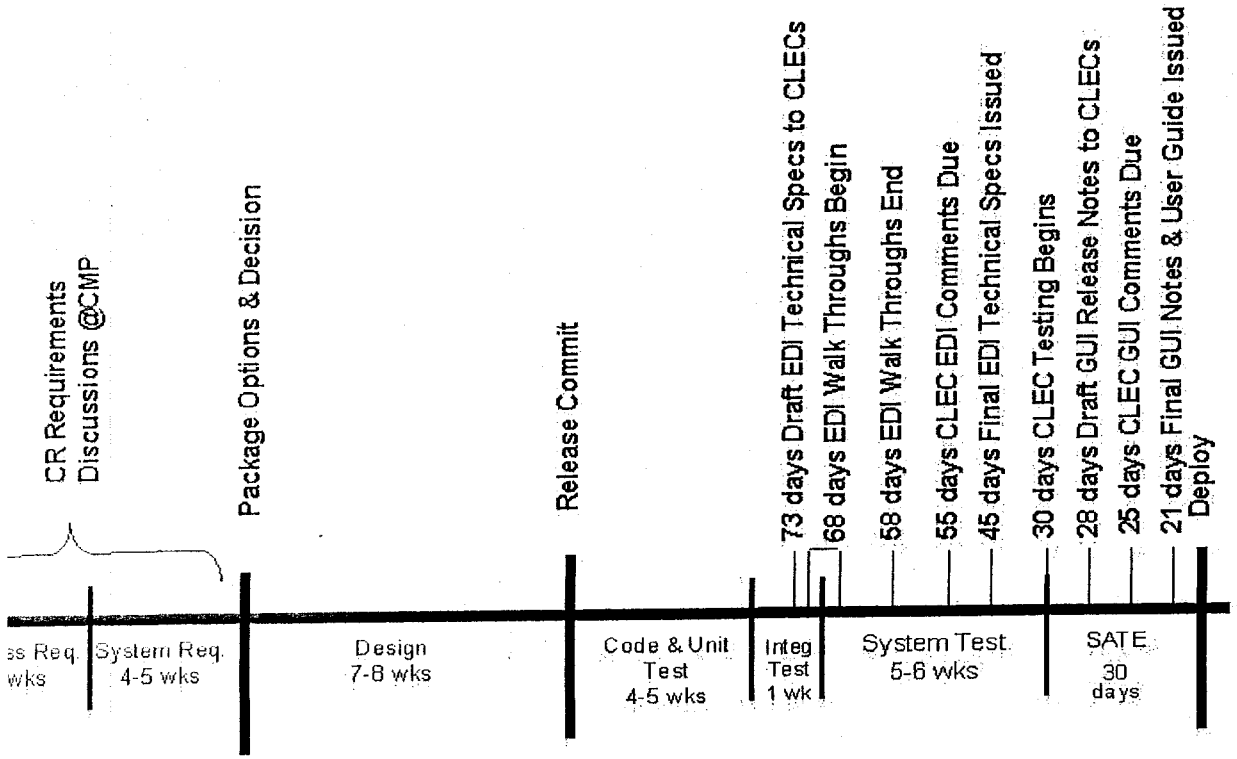
:velopment Timeline

IMA Software Development Timeline

Time for each phase is approximate and based on current release timelines. Time per phase can change per business needs.



5.3 CLEC Originated Product/Process Change Request Process

If a CLEC wants Qwest to change a product/process, the CLEC e-mails a Change Request (CR) Form to the Qwest CMP Manager, cmpcr@qwest.com. No later than two (2) business days after Qwest receives the CR:

- The Qwest CMP Manager reviews the CR for completeness, and requests additional information from the CR originator, if necessary
- The Qwest CMP Manager assigns a CR Number and logs the CR into the CMP database
- The Qwest CMP Manager sends acknowledgment of receipt to the CR originator and updates the CMP Database

Within two (2) business days after acknowledgement:

- The Qwest CMP Manager posts the detailed CR report to the CMP Web site
- The CMP Manager assigns a Change Request Project Manager (CRPM) and identifies the appropriate Director responsible for the CR
- The CRPM obtains from the Director the names of the assigned Subject Matter Expert(s) (SME)
- The CRPM will provide a copy of the detailed CR report to the CR originator which includes the following information:
  - Description of CR
  - Originator (*i.e.*,CLEC name)
  - Assigned CRPM contact information
  - Assigned CR number
  - Designated Qwest SMEs and associated director(s)
  - Status of the CR (e.g, Submitted)

Within eight (8) business days after receipt of a complete CR, the CRPM coordinates and holds a clarification meeting with the Originating CLEC and Qwest's SMEs. If the originating CLEC is not available within the above specified time frame, then the clarification meeting will be held at a mutually agreed upon time. Qwest will not provide a response to a CR until a clarification meeting has been held. The CR originator may invite representatives from other companies to participate on the clarification call. Such participation is not intended to replace the presentation of the CR at the Monthly CMP Meeting.

At the clarification meeting, Qwest and the Originating CLEC will review the submitted CR, validate the intent of the Originating CLEC's CR, clarify all aspects, identify all questions to be answered, and determine deliverables to be produced. After the clarification meeting has been held, the CRPM will document and issue meeting minutes within five (5) business days. Qwest's SME will internally identify options and potential solutions to the CR.

CRs received fourteen (14) calendar days prior to the next scheduled Monthly CMP Product/Process Meeting will be presented at that Monthly CMP Product/Process Meeting. CRs that are not submitted by the above specified cut-off date may be presented at that Monthly CMP Product/Process Meeting as a walk-on item with current status. The Originating

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CLEC will present the CR and provide any business reasons for the CR. Items or issues identified during the previously held clarification meeting will be relayed. Participating CLECs will be given the opportunity to comment on the CR and subsequent clarifications. If appropriate, Qwest's SME(s) will identify options and potential solutions to the CR. Clarifications and/or modifications related to the CR will be incorporated into the evaluation of the CR. Subsequently, Qwest will develop a draft response based on the discussion from the Monthly CMP Product/Process Meeting. Qwest's response will be:

- "Accepted" (Qwest will implement the CLEC request) with position stated, or
- "Denied" (Qwest will not implement the CLEC request) with basis for the denial and a detailed explanation, including reference to substantiating material. CLEC originated Product/Process Change Request may be denied for one or more of the following reasons:
  - Technologically not feasible—a technical solution is not available
  - Regulatory ruling/Legal implications—regulatory or legal reasons prohibit the change as requested, or if the request benefits some CLECs and negatively impact others (parity among CLECs) (Contrary to ICA provisions)
  - Outside the Scope of the Change Management Process—the request is not within the scope of the Change Management Process (as defined in this CMP), seeks adherence to existing procedures, or requests for information
  - Economically not feasible—low demand, cost prohibitive to implement the request, or both
  - The requested change does not result in a reasonably demonstrable business benefit (to Qwest or the requesting CLEC) or customer service improvement

Qwest will not deny a CR solely on the basis that the CR involves a change to the back-end systems. Qwest will apply these same concepts to CRs that Qwest originates. SCRP may be invoked if a CR was denied due to Economically not feasible.

At least one (1) week prior to the next scheduled Monthly CMP Product/Process Meeting, the CRPM will have the response posted to the Web, added to the CMP Database, and will notify all CLECs via e-mail.

All Qwest Responses will be presented at the next scheduled Monthly CMP Product/Process Meeting. Qwest will conduct a walk through of its Response. Participating CLECs will be provided the opportunity to discuss, clarify and comment on Qwest's Response.

Based on the comments received from the Monthly CMP Product/Process Meeting, Qwest may revise its Response and issue a modified Response at the next Monthly CMP Product/Process Meeting. Within ten (10) business days after the Monthly CMP Product/Process Meeting, Qwest will notify the CLECs of Qwest's intent to modify its Response.

If the CLECs do not accept Qwest's Response, any CLEC can elect to escalate or dispute the CR in accordance with the agreed upon CMP Escalation Process or Dispute Resolution Process. (See Sections 14.0 and 15.0) If the originating CLEC does not agree with the determination to escalate or pursue dispute resolution, it may withdraw its participation from the CR and any other CLEC may become responsible for pursuing the CR upon providing written

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notification to the Qwest CMP Manager, cmpcr@qwest.com. Qwest will note in the status history of the interactive reports that the CR has been escalated. However, the CR status will reflect the stage of the CR as it progresses through the CR lifecycle.

If the CLECs do not accept Qwest's Response and do not intend to escalate or dispute at the present time, they may request Qwest to status the CR as Deferred. The CR will remain as Deferred and CLECs may reactivate the CR at a later date.

The CLECs' acceptance of Qwest's Response may result in:

- The Response answered the CR and no further action is required
- The Response provided an implementation plan for a product/process to be developed
- Qwest Denied the CLEC CR and no further action is required by CLEC

5.3.1 Implementation Notification

If the CLECs have accepted Qwest's response, Qwest will provide notice of planned implementation as follows.

Prior to implementing a CLEC originated product/process CR Qwest must notify the CLECs of the pending change. Qwest will issue such notifications at the time it intends to implement a CLEC originated change (in whole or in part). It is possible that more than one such notification will be issued in order to fully address the CLEC requested change. Such notifications may be issued during CLEC Test and may continue to be issued until the CLEC initiated CR is closed. These notifications will adhere to the notification standards for Level 1, Level 2, and Level 3 detailed in Section 5.4 (Qwest Originated Product/Process Changes). If the change is not specifically captured in the existing Level categories, or if the change is captured in the Level 4 categories, Qwest will follow the Level 3 notification schedule.

Finally, the CR will be closed when CLECs determine that no further action is required for that CR.

5.4 Qwest Originated Product/Process Changes

The following defines five levels of Qwest originated product/process changes and the process by which Qwest will originate and implement these changes. None of the following shall be construed to supersede timelines or provisions mandated by federal or state regulatory authorities, certain CLEC facing Web sites (e.g., ICONN and Network Disclosures) or individual interconnection agreements. Each notification will state that it does not supercede individual interconnection agreements. The lists of change categories under each level provided below are exhaustive/finite but may be modified by the process set forth in Section 2.1. Qwest will utilize these lists when determining the disposition level to which new changes will be categorized. The changes that go through these processes are not changes to OSS Interfaces. Level 1-4 changes under this process will be tracked and differentiated by level in the History Log for the affected documents.

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5.4.1 Level 0 Changes

Level 0 changes are defined as changes that do not change the meaning of documentation and do not alter CLEC operating procedures. Level 0 changes are effective immediately without notification.

Level 0 Change Categories are:

- Font and typeface changes (e.g., bold to un-bold or bold to italics)
- Capitalization
- Spelling corrections and typographical errors other than numbers that appear as part of an interval or timeframe
- Hyphenation
- Acronym vs. non-acronym (e.g., inserting words to spell out an acronym)
- Symbols (e.g., changing bullets from circles to squares for consistency in document)
- Word changes from singular to plural (or vice versa) to correct grammar
- Punctuation
- Changing of a number to words (or vice versa)
- Changing a word to a synonym
- Contact personnel title changes where contact information does not change
- Alphabetizing information
- Indenting (left/right/center justifying for consistency)
- Grammatical corrections (making a complete sentence out of a phrase)
- Corrections to apply consistency to product names (i.e., "PBX - Resale" changed to "Resale - PBX")
- Moving paragraphs/sentences within the same section of a document to improve readability
- Hyperlink corrections within documentation
- Removing unnecessary repetitive words in the same paragraph or short section.

For any change that Qwest considers a Level 0 change that does not specifically fit into one of the categories listed above, Qwest shall issue a Level 3 notification.

5.4.1.1 Level 0 Process/Deliverables

For Level 0 changes, Qwest will not provide a notification, Web change form, or History Log to CLECs. Changes to the documentation will be updated and posted immediately.

5.4.2 Level 1 Changes

Level 1 changes are defined as changes that do not alter CLEC operating procedures or changes that are time critical corrections to a Qwest product/process. Time critical corrections may alter CLEC operating procedures, but only if such Qwest product/process has first been implemented through the appropriate level under CMP. Level 1 changes are effective immediately upon notification.

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Level 1 Change Categories are:

- Time critical corrections to information that adversely impacts CLECs' ability to conduct business with Qwest
- Corrections/clarifications/additional information that do not change the product/process
- Corrections to synch up related PCAT documentation with the primary PCAT documentation that was modified through a higher level change (notification needs to include reference to primary PCAT documentation)
- Document corrections to synch up with existing OSS Interfaces documentation (notification needs to include reference to OSS Interfaces documentation)
- Process options with no mandatory deadline, that do not supercede the existing processes and that do not impose charges, regardless of whether the CLEC exercises the option
- Modifications to Frequently Asked Questions that do not change the existing product/process
- Re-notifications issued within one hundred and eighty (180) calendar days after initial notification (notification will include reference to date of initial notification or, if not available, reference to existing PCAT)
- Regulatory Orders that mandate a product/process change to be effective in less than twenty-one (21) days
- Training information (note: if a class is cancelled, notification is provided two (2) weeks in advance)
- URL changes with redirect link

For any change that Qwest considers a Level 1 change that does not specifically fit into one of the categories listed above, Qwest shall issue a Level 3 notification.

5.4.2.1 Level 1 Process/Deliverables

For Level 1 changes, Qwest will provide a notification to CLECs. Level 1 notifications will state the disposition level 1, description of change, that changes are effective immediately, that there is no comment cycle and will advise CLECs to contact the CMP Manager by e-mail at cmpcr@qwest.com immediately if the change alters the CLECs' operating procedures and requires Qwest's assistance to resolve. Qwest will respond to the CLEC, within one (1) business day, and work to resolve the issue. Possible resolutions may include withdrawal of the change, re-notification under a different level or creation of a new category of change under a different level. In addition, Qwest will provide the following for PCAT and Non-FCC Technical Publication ("Tech Pub") changes:

- The complete red-lined PCAT or Non-FCC Tech Pub will be available for review in the Product/Process Document Review Archive section of the CMP Web site, http://www.uswest.com/wholesale/cmp/review_archive.html,
- A History Log that tracks the changes

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5.4.3 Level 2 Changes

Level 2 changes are defined as changes that have minimal effect on CLEC operating procedures. Qwest will provide notification of Level 2 changes at least twenty-one (21) calendar days prior to implementation.

Level 2 Change Categories are:

- Contact Information updates excluding time critical corrections (Expedites and Escalations Overview (http://www.qwest.com/wholesale/clecs/exescover.html), Wholesale Customer Contacts (http://www.qwest.com/wholesale/clecs/escalations.html), Technical Escalations Contact List (http://www.qwest.com/wholesale/systems/productionsupport.html), CMP Points of Contact (POCs, Qwest POC changes only) (http://www.qwest.com/wholesale/cmp/poc.html))
- Changes to a form that do not introduce changes to the underlying process
- Changes to eliminate/replace existing Web functionality will be available for twenty-one (21) days until comments are addressed. (Either a demo or screen shot presentation will be available at the time of the notification for evaluation during the twenty-one (21) day cycle.)
- Removal of data stored under an archive URL
- Elimination of a URL re-direct
- Addition of new Web functionality (e.g., CNLA)
- Re-notifications issued one hundred and eighty (180) calendar days or more after the initial notification (notification will include reference to date of initial notification or, if not available, reference to existing PCAT)
- Documentation concerning existing processes/products not previously documented
- Changes to manually generated notifications normally transmitted to CLECs through their OSS Interfaces that are made to standardize or clarify, but do not change the reasons for, such notifications
- LSOG/PCAT documentation changes associated with new OSS Interface Release documentation resulting from an OSS Interface CR
- Reduction to an interval in Qwest's SIG

For any change that Qwest considers a Level 2 change that does not specifically fit into one of the categories listed above, Qwest shall issue a Level 3 notification.

5.4.3.1 Level 2 Process/Deliverables

For Level 2 changes, Qwest will provide a notification to CLECs. Level 2 notifications will state the disposition level 2, description of change, proposed implementation date, and CLEC/Qwest comment cycle timeframes. In addition to the notification, any documentation changes required to PCATs and Non-FCC Tech Pubs will be red-lined and available for review in the Document Review section of the CMP Web site, http://www.qwest.com/wholesale/cmp/review.html, commonly known as the Document Review site. In the Document Review site, a comment button will be available next to the document to allow CLECs to provide comments. For Level 2 changes that do not impact PCATs or Non-FCC Tech Pubs, a comments link will be provided within the notification for comments.

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Qwest must provide initial notification of Level 2 changes at least twenty-one (21) calendar days prior to implementation and adhere to the following comment cycle:

- CLECs have seven (7) calendar days following initial notification of the change to provide written comments on the notification.
- Qwest will reply to CLEC comments no later than seven (7) calendar days following the CLEC cut-off for comments. The Qwest reply will also include confirmation of the implementation date. In the event there are extenuating circumstances, (e.g., requested change requires significant research, information is required from national standards body or industry (e.g., Telcordia)), Qwest's response will indicate the course of action Qwest is taking and Qwest will provide additional information when available. Once the information is available, Qwest will provide a notification and any available updated documentation (e.g., Tech Pubs, PCATs) at least seven (7) calendar days prior to implementation. If Qwest extends the comment response period, Qwest will present an update on the response at each Monthly CMP Product/Process Meeting until final notification is distributed.
- Qwest will implement no sooner than twenty-one (21) calendar days from the initial notification.

CLECs may provide General comments regarding the change (e.g., clarification, request for modification, request to change the disposition level of a noticed change). Comments must be provided during the comments cycle as outlined for level 2 changes.

If a CLEC requests to change the disposition level of a noticed change, CLECs and Qwest will discuss such requests at the next Monthly CMP Product/Process Meeting. In the event that timing doesn't allow for discussion at the upcoming Monthly CMP Product/Process Meeting, Qwest will call a special ad hoc meeting to address the request. If the parties are not able to reach agreement on any such request, CLECs and Qwest will take a vote in accordance with Section 17.0. The result will be determined by the Majority. If the disposition level of a change is modified, from the date of the modification forward, such change will proceed under the modified level with notifications and timelines agreed to by the participants.

For general comments, Qwest will respond to comments and provide a final notification of the change. Additionally, Qwest will provide documentation of proposed changes to Qwest PCATs and Non-FCC Tech Pubs to CLECs and implement the change(s) according to the timeframes put forth above. If there are no CLEC comments, a final notification will not be provided and the changes will be effective according to the date provided in the original notification.

If the CLECs do not accept Qwest's response, any CLEC may elect to escalate or pursue dispute resolution in accordance with the agreed upon CMP Escalation Process or Dispute Resolution Process. (See Sections 14.0 and 15.0)

5.4.4 Level 3 Changes

Level 3 changes are defined as changes that have moderate effect on CLEC operating procedures and require more lead-time before implementation than Level 2 changes. Qwest

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will provide initial notification of Level 3 changes at least thirty-one (31) calendar days prior to implementation.

Level 3 Change Categories are:

- NC/NCI code changes
- Adding of new features to existing products (excluding resale)
- Customer-facing Center hours and holiday schedule changes
- Modify/change existing manual process
- Expanding the availability and applicability or functionality of an existing product or existing feature (excluding resale)
- Regulatory Orders that mandate a product/process change to be effective in twenty-one (21) days or more

For any change that Qwest considers a Level 3 change that does not specifically fit into one of the categories listed above, Qwest shall issue a Level 3 notification.

5.4.4.1 Level 3 Process/Deliverables

For Level 3 changes, Qwest will provide a notification to CLECs. Level 3 notifications will state the disposition level 3, description of change, proposed implementation date, and CLEC/Qwest comment cycle timeframes. Level 3 notifications will only include Level 3 changes and any dependent Level 1 and Level 2 changes. Level 3 notifications of Tech Pub changes may include notification of any Level 1, Level 2 and Level 3 change.

For a Level 3 notification that Qwest believes should fall under a different Level, Qwest will propose the Level under which it believes that change should be processed. CLECs and Qwest will discuss the proposal in the next Monthly CMP Product/Process Meeting. In addition to the notification, any documentation changes required to PCATs and Non-FCC Tech Pubs will be red-lined and available for review in the Document Review section of the CMP Web site, http://www.qwest.com/wholesale/cmp/review.html, commonly known as the Document Review site. In the Document Review site, a comment button will be available next to the document to allow CLECs to provide written comments. For Level 3 changes that do not impact PCATs or Non-FCC Tech pubs, a link will be provided within the notification for comments.

Qwest will provide initial notification of Level 3 changes at least thirty-one (31) calendar days prior to implementation and adhere to the following comment cycle:

- CLECs have fifteen (15) calendar days following initial notification of the change to provide written comments on the notification
- Qwest will reply to CLEC comments no later than fifteen (15) calendar days following the CLEC cut-off for comments. The Qwest reply will also include confirmation of the implementation date. In the event there are extenuating circumstances, (e.g., requested change requires significant research, information is required from national standards body or industry (e.g., Telcordia)), Qwest's response will indicate the course of action Qwest is taking and Qwest will provide additional information when available. Once the information is available, Qwest will provide a notification and any available updated documentation (e.g.,

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Tech Pubs, PCATs) at least fifteen (15) calendar days prior to implementation. If Qwest extends the comment response period, Qwest will present an update on the response at each Monthly CMP Product/Process Meeting until final notification is distributed.

- Qwest will implement no sooner than fifteen (15) calendar days after providing the response to CLEC comments. For example, if there are no CLEC comments, Qwest may send out a final notification on the first day following the CLEC cut-off for comments (day 16 after the initial notification). Thus, implementation would be thirty-one (31) days from the initial notification. However, if Qwest does not respond to the CLEC comments until the 15th day after the CLEC cut-off for comments, the earliest possible implementation date would be forty-five (45) calendar days from the initial notification.

CLEC comments must be provided during the comment cycle as outlined for Level 3 changes. Comments may be one of the following:

- General comments regarding the change (e.g., clarification, request for modification)
- Request to change disposition level of a noticed change
  - If the request is for a change to Level 4, the request must include substantive information to warrant a change in disposition (e.g., business need, financial impact).
  - A request to change disposition level to a Level 0, Level 1 or Level 2 is not required to include substantive information to warrant a change.
- Request for postponement of implementation date, or effective date

For general comments, Qwest will respond to comments and provide a final notification of the change. Additionally, Qwest will provide documentation of proposed changes to Qwest PCATs and Non-FCC Tech Pubs available to CLECs and implement the change(s) according to the timeframes put forth above.

CLECs and Qwest will discuss requests to change the disposition level of notified changes at the next Monthly CMP Product/Process Meeting. In the event that timing doesn't allow for discussion at the upcoming Monthly CMP Product/Process Meeting, Qwest will call a special ad hoc meeting to address the request. If the parties are not able to reach agreement on any such request, CLECs and Qwest will take a vote in accordance with Section 17.0. The result will be determined by the Majority. If the disposition level of a change is modified, from the date of the modification forward, such change will proceed under the modified level with notifications and timelines agreed to by the participants. Except that, within five (5) business days after the disposition level is changed to a Level 1, Qwest will provide a Level 1 notification.

For a request for postponement of a Level 3 change, Qwest will follow the procedures as outlined in Section 5.5 of this document.

If the CLECs do not accept Qwest's response, any CLEC may elect to escalate or pursue dispute resolution in accordance with the agreed upon CMP Escalation or Dispute Resolution procedures. (See Sections 14.0 and 15.0)

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5.4.5 Level 4 Changes

Level 4 changes are defined as changes that have a major effect on existing CLEC operating procedures or that require the development of new procedures. Level 4 changes will be originated using the CMP CR process and provide CLECs an opportunity to have input into the development of the change prior to implementation.

Level 4 Change Categories are:

- New products, features, services (excluding resale)
- Increase to an interval in Qwest's Service Interval Guide (SIG)
- Changes to CMP
- New PCAT/Tech Pub for new processes
- New manual process
- Limiting the availability and applicability or functionality of an existing product or existing feature
- Addition of a required field on a form excluding mechanized forms that are changed through an OSS Interface CR (See Section 5.1)

For any noticed change that Qwest considers a Level 4 change that does not specifically fit into one of the categories listed above, Qwest shall issue a Level 3 notification with an indication in the notification that Qwest believes the change should be a Level 4 change.

5.4.5.1 Level 4 Process/Deliverables

Submitted 1/8

Qwest will submit a completed Change Request no later than fourteen (14) calendar days prior to the Monthly CMP Product/Process Meeting. At a minimum, each Change Request will include the following information:

- A description of the proposed change
- A proposed implementation date (if known)
- Indication of the reason for change (e.g., regulatory mandate)
- Basis for disposition of Level 4

Within two (2) business days from receipt of the CR:

- The Qwest CMP Manager assigns a CR Number and logs the CR into the CMP Database
- The Qwest CMP Manager sends acknowledgment of receipt to the CR originator and updates the CMP Database

Within two (2) business days after acknowledgement:

- The Qwest CMP Manager posts the detailed CR report to the CMP Web site
- The CMP Manager assigns a Change Request Project Manager (CRPM) and identifies the appropriate Director responsible for the CR
- The CRPM identifies the CR Subject Matter Expert (SME) and the SME's Director.
- The CRPM will provide a copy of the detailed CR report to the CR originator which includes the following information:

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- Description of CR
- Assigned CRPM
- Assigned CR number
- Designated Qwest SME(s) and associated director(s)
- Status of the CR (e.g., Submitted)

Qwest will present the Change Request at the Monthly CMP Product/Process Meeting. The purpose of the presentation will be to:

- Clarify the proposal with the CLECs
- Confirm the disposition level of the Change (see below).
- Propose suggested input approach (e.g., a 2 hour meeting, 4 meetings over a two week period, etc.), and obtain agreement for input approach
- Confirm deadline, if change is mandated
- Provide proposed implementation date, if applicable

At the Monthly CMP Product/Process Meeting, the parties will discuss whether to treat the Change Request as a Level 4 change. If the parties agree, the Change Request will be reclassified as a Level 0, 1, 2 or 3 change, and the change will follow the process set forth above for Level 0, 1, 2, or 3 changes, as applicable. If the parties do not agree to reclassify the Change Request as a Level 0, 1, 2 or 3 change, the following process will apply:

- The parties will develop a process for Qwest to obtain CLEC input into the proposed change. Examples of processes for input include, but are not limited to, one-day conferences, multi-day conferences, or written comment cycles.
- After completion of the input cycle, as defined during the Monthly CMP Product/Process Meeting, Qwest will modify the CR, if necessary, and design the solution considering all CLEC input.
- For Level 4 changes, when the solution is designed and all documentation is available for review, a notification of the planned change is provided to the CLECs. Level 4 notifications will only include Level 4 changes and any dependent Level 1, Level 2 changes, and Level 3 changes. Level 4 notifications of Tech Pub changes may include notification of any Level 1, Level 2, Level 3, and Level 4 change. This notification will be provided at least thirty one (31) calendar days prior to implementation. The notification will contain reference to the original CR, proposed implementation date, and the CLEC/Qwest comment cycle. In addition, any documentation changes required to PCATs and Non-FCC Tech Pubs will be red-lined and available for review in the Document Review site with a Comment button available to provide written comments. For Level 4 changes that do not impact PCATs or Non-FCC Tech Pubs, a comments link will be provided within the notification.
- CLECs have fifteen (15) calendar days following notification of the planned change to provide written comments on the notification
- Qwest will reply to CLEC comments no later than fifteen (15) calendar days following the CLEC cut-off for comments. The Qwest reply will also include confirmation of the implementation date. In the event there are extenuating circumstances, (e.g., requested change requires significant research, information is required from national standards body or industry (e.g., Telcordia)), Qwest's response will indicate the course of action Qwest is

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taking and Qwest will provide additional information when available. Once the information is available Qwest will provide a notification and any available updated documentation (e.g., Tech Pubs, PCATs) at least fifteen (15) calendar days prior to implementation. If Qwest extends the comment response period, Qwest will present an update on the response at each Monthly CMP Product/Process Meeting until final notification is distributed.

- Qwest will implement no sooner than fifteen (15) calendar days after providing the response to CLEC comments. For example, if there are no CLEC comments, Qwest may send out a final notification on the first day following the CLEC cut-off for comments (day 16 after the initial notification). Thus, implementation would be thirty one (31) days from the initial notification. However, if Qwest does not respond to the CLEC comments until the 15th day after the CLEC cut-off for comments, the earliest possible implementation date would be forty five (45) calendar days from the initial notification.

CLEC comments must be provided during the comment cycle as outlined for Level 4. CLEC comments may be one of the following:

- General comments regarding the change (e.g., clarification, request for modification)
- Request for postponement of implementation, or effective date for which comments are being provided.

For general comments, Qwest will respond to comments and provide a final notification of the change. Additionally, Qwest will provide documentation of proposed changes to Qwest PCATs and Non-FCC Tech Pubs available to CLECs and implement the change(s) according to the timeframes put forth above.

For a request for postponement of a Level 4 change, Qwest will follow the procedures as outlined in Section 5.5 of this document.

If the CLECs do not accept Qwest's response, any CLEC may elect to escalate the CR or pursue the Dispute Resolution Process in accordance with Section 15.0.

5.5 Postponement and Arbitration of a Product/Process Change

A CLEC may request that Qwest postpone the implementation of a Qwest-originated or CLEC-originated product/process change in accordance with this section.

5.5.1 Timeframe for Request for Postponement

A CLEC invokes the Postponement Process in accordance with the conditions and timeframes specified below:

5.5.1.1 Qwest-Originated Product /Process Changes

For Qwest-originated Level 3 or Level 4 product/process changes, if a CLEC intends to invoke the postponement process, it must do so during the final CLEC comment period.

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If, however, in its response to CLEC comments Qwest revises the proposed change and that revision materially impacts a CLEC, a CLEC may invoke the postponement process within five (5) business days after the issuance of Qwest's final notification of the change.

5.5.1.2 CLEC-Originated Product/Process Changes

For CLEC-originated product/process changes, if a CLEC intends to invoke the postponement process, it must do so during the CLEC comment period applicable to the notification called for in Section 5.3.1.

If, however, in its response to CLEC comments Qwest revises the proposed change and that revision materially impacts a CLEC, a CLEC may invoke the postponement process within five (5) business days after the issuance of Qwest's final notification of the change.

5.5.1.3 A CLEC may Join or Oppose a Postponement Request

A CLEC may only join or oppose a postponement request if it submits a request to join or oppose the postponement request within two (2) business days after the issuance date of Qwest's notification to the CLECs that a postponement request has been received by Qwest.

5.5.2 Process for Initiating a Postponement Request

5.5.2.1 CLEC Initiates Postponement Request by E-mail

A request for postponement, a request to join a postponement request or opposition to a postponement request must be sent to the Qwest CMP Postponement e-mail address (cmpesc@qwest.com).

The subject line of the request must include:

- CLEC Company Name
- POSTPONEMENT
- Change Request (CR) number or Notification Subject Line and Notification Date as appropriate

5.5.2.1.1 Required Content for Request for Postponement

A CLEC may request that Qwest postpone implementation of all or part of the proposed change until the issue is resolved in CMP or until the dispute is resolved pursuant to the Dispute Resolution Process (Section 15.0). In its request for postponement, whether initiating or joining a postponement request, a CLEC shall provide the following information, if relevant:

- The basis for the request for a postponement;
- The extent of the postponement requested, including the portions of the proposed change to be postponed and length of requested postponement;
- The harm that the CLEC will suffer if the proposed change is not postponed, including the business impact on the CLEC if the proposed change is not postponed; and

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- Whether and how the CLEC alleges that the proposed change violates its interconnection agreement(s) or any applicable commission rules or any applicable law.

5.5.2.1.2 Additional Requirement for Request for Postponement Arising from Revision

If a CLEC requests a postponement because Qwest's response to CLEC comments includes a revision of the proposed change and that revision materially impacts a CLEC, such a request must contain a description of why Qwest's response affects the CLEC in a new or different way than the proposed change initially affected the CLEC, along with the information that would have been required if the CLEC submitted a request for postponement in its comments.

5.5.2.1.3 Opposition to a Postponement Request

If a CLEC wishes to oppose a postponement request, it must submit its opposition to a postponement request within the same time period that CLECs have to join a postponement request. Any opposition to a postponement request must include information responsive to the assertions made by the CLEC seeking postponement as called for in Section 5.5.2.1.1. For example, under Section 5.5.2.1.1, CLEC(s) seeking postponement must describe the harm it will suffer if the change is not postponed. In response to this assertion, a CLEC opposing a postponement request will state the harm it would suffer if Qwest does postpone the change.

5.5.2.2 Qwest will Work to Resolve CLEC Concerns

Following the receipt of a postponement request, Qwest will proactively work with the objecting CLEC(s) to resolve the concerns of the CLEC(s).

5.5.2.3 Qwest Acknowledges Receipt of Request and Notifies CLECs

Within two (2) business days after receipt of the postponement request, Qwest will acknowledge receipt of the postponement request or the request to join the postponement with an acknowledgment e-mail to the originator of the request. If the request does not contain the relevant information, as specified in Section 5.5.2.1.1, Qwest will notify the CLEC by the close of business on the following day, identifying and requesting information that was not originally included. When the postponement e-mail is complete, the acknowledgment e-mail will include:

- Date and time of receipt of postponement request
- Date and time of acknowledgment e-mail
- Qwest will give notification and post the postponement request and any associated responses on the CMP Web site within three (3) business days after receipt of the complete request or response.

5.5.3 Qwest's Determination of Postponement Request

The standard set forth in this section applies only to Qwest's postponement determination under this section and the arbitrator's determination under Section 5.5.4.5 and has no bearing on the standard applicable to any other review or determination.

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5.5.3.1 Standard for Determining whether to Postpone.

Qwest will postpone the implementation of the proposed change whenever Qwest reasonably determines that postponing the proposed change will prevent more harm or cost to the requesting and any joining CLECs than postponing the proposed change imposes harm or cost upon Qwest or any CLECs who oppose the postponement. Qwest will postpone the implementation of the proposed change if it is inconsistent with a requesting or joining CLEC's interconnection agreement, applicable commission rule or law.

Qwest will not postpone the implementation of the proposed change whenever Qwest reasonably determines that postponing the proposed change will impose more harm or cost upon Qwest or any CLECs who oppose the postponement than postponing the proposed change will prevent harm or cost to the CLECs supporting the postponement. Qwest will provide in its response notification that the proposed change will not be postponed.

5.5.3.2 Qwest's Response to Request for Postponement

If Qwest decides to postpone the proposed change, it will provide the following information in its response:

- The time period (not less than thirty (30) calendar days) for which the proposed change will be postponed;
- The CLECs for which the proposed change will be postponed; and
- Any other details of the postponement, including the portions of the proposed change to be postponed and the length of the postponement.

If Qwest decides not to postpone the proposed change, it will provide in its response:

- The reason the requested postponement is not being implemented;
- An explanation of the harm and cost evaluation; and
- How Qwest alleges that the proposed change is consistent with interconnection agreement(s) or any applicable commission rules or any applicable law.

5.5.3.3 30-day Postponement if Request is Denied

If Qwest does not grant the requested postponement, Qwest will not implement the objected-to proposed change for at least thirty (30) calendar days following notification to CLECs that Qwest will not postpone the proposed change.

5.5.4 Optional Arbitration Process for Interim Postponement of Disputed Changes while Dispute Resolution Proceeds

If Qwest does not postpone a proposed change and a CLEC has initiated Dispute Resolution proceedings (Section 15.0) with regard to the proposed change, the CLEC has the option to request a neutral arbitrator to determine whether Qwest must postpone implementation of that proposed change. This optional arbitration provides interim relief only and is limited to the question of whether Qwest must postpone implementation of the proposed change until the

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dispute or the postponement request is resolved under the Dispute Resolution process. The arbitrator's decision will have application in all of the states where the CLEC initiates Dispute Resolution proceedings on the issue. As decisions on the dispute or the postponement request are made in each state, such decisions will supersede the determination of the arbitrator for that state.

All references in Section 5.5.4 (including all subsections) to "CLEC" and "CLECs" include all CLECs who have submitted or joined requests for postponement of a proposed change, initiated Dispute Resolution proceedings and seek arbitration for the interim postponement of the same proposed change. There may be multiple CLECs seeking postponement of the same proposed change in any given state. Such CLECs will, to the greatest extent possible, cooperate with one another to select a single arbitrator to address the issue of interim postponement for a given state. In the event that one or more CLECs have initiated Dispute Resolution proceedings on the issue of interim postponement of the same proposed change in multiple states, such CLECs may agree to the use of a single arbitrator to address such issue for all such states.

References in Section 5.5.4 (including all subsections) to "parties" will include Qwest and all CLECs who have submitted or joined requests for postponement of the same proposed change, initiated Dispute Resolution proceedings and seek arbitration for the interim postponement of that proposed change. However, the reference to "all parties" in Section 5.5.4.1.1 means Qwest and all CLECs in CMP who have received proper notification, in accordance with Section 3.0, about selection of individuals for the Agreed Arbitrators List and participated in the selection discussions.

This optional arbitration process set forth below does not apply to any proceeding before a regulatory or other authority.

5.5.4.1 Selection of Arbitrator

If a CLEC chooses arbitration under this section, the parties shall select a neutral arbitrator by agreeing to an individual or by following the processes set forth below to select an arbitrator from an alternative dispute resolution organization.

5.5.4.1.1 Agreed Arbitrators List

Qwest and the CLECs may, by mutual agreement, develop a list of individual arbitrators to which all parties agree as an additional source for selection of a neutral arbitrator (Agreed Arbitrators List). Names of arbitrators may be added to the list at any time upon agreement of all parties. Qwest or any CLEC may strike an individual arbitrator from the Agreed Arbitrators List at any time, except that Qwest or any CLEC may not strike an arbitrator from the list while an arbitration initiated under this provision is pending before that arbitrator. If a CLEC chooses a name from the Agreed Arbitrators List, that individual will be the arbitrator.

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

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5.5.4.1.2 Alternative Dispute Resolution Organization

If a CLEC does not choose an individual arbitrator from the Agreed Arbitrators List, or if Qwest and CLECs do not otherwise agree on an individual arbitrator, then Qwest and the CLEC shall select a neutral arbitrator from any of the following pursuant to the process set forth below: Judicial Arbiter Group (JAG), American Arbitration Association (AAA), JAMS, or any other mutually agreeable alternative dispute resolution organization. Within two (2) business days after receipt of Qwest's acknowledgment e-mail, the CLEC shall advise the alternative dispute resolution organization and Qwest of the identity of the parties and the nature of the dispute and the CLEC shall acquire from JAG, AAA, JAMS, or other alternative dispute resolution organization as to which agreement is reached, a list of 5 potential arbitrators who have no apparent conflict of interest or any circumstances likely to affect their impartiality or independence and who have experience in handling general commercial disputes, along with a brief summary of each potential arbitrator's relevant background and experience. The CLEC shall forward the list to the specified Qwest contact as soon as practicable after it receives the list, along with the identity of the two of the five potential arbitrators the CLEC wishes to strike from the list. Within one business day after receipt of the list and indication of the potential arbitrators the CLEC has stricken, Qwest will respond to the CLEC contact with the two additional names Qwest wishes to strike from the list.

5.5.4.2 Initiating Postponement Arbitration

A CLEC initiates arbitration for interim postponement of Qwest's implementation of a proposed change under this provision by sending an e-mail to Qwest at cmpesc@qwest.com. The e-mail must include, at a minimum, the following:

- Subject line that includes "Postponement" and the CR [insert number] or Notification Subject Line
- The CLEC's contact person for matters relating to the postponement arbitration and method of communication (e.g., e-mail address or facsimile number)
- A statement that the CLEC desires to have a neutral arbitrator decide whether Qwest must postpone implementation of the change until the request for postponement is decided by the regulatory or other authority
- A copy of the documents that the CLEC filed with the Regulatory or other authority to initiate the dispute resolution
- The identity of the alternative dispute resolution organization or individual arbitrator the CLEC proposes to use

Within two (2) business days after receipt of the Request for Postponement Arbitration, Qwest shall respond with an e-mail acknowledging receipt of the Request for Postponement Arbitration. The e-mail must include, at a minimum, the following:

- A subject line that includes "Acknowledgment of Request for Postponement" and the CR [insert number] or Notification Subject Line
- Qwest's contact person for matters relating to the postponement arbitration and method of communication (e.g., e-mail address or facsimile number)

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- If the Request for Postponement Arbitration identifies an alternative dispute resolution organization other than those listed in Section 5.5.4.1.2 or individual other than those on the Agreed Arbitrators List, Qwest's acknowledgment will state whether it agrees to the use of that alternative dispute resolution organization or individual arbitrator and, if it does not agree, Qwest will identify an organization or individual arbitrator that appears on the Agreed Arbitrator List that it agrees to use.

Qwest and the CLEC shall communicate with one another regarding matters relating to the postponement arbitration through the contact person and by the method of communication designated in accordance with the process set forth above.

5.5.4.3 No Unilateral Communication with Arbitrator or Potential Arbitrator

Neither Qwest nor the CLEC, and no person acting on behalf of either Qwest or the CLEC, shall communicate unilaterally concerning the arbitration with the arbitrator or any potential arbitrator.

5.5.4.4 Scope of Authority of the Arbitrator

The arbitrator shall decide only the issue of whether Qwest must postpone implementation of the change. The arbitrator shall not have authority to award any damages or make any other determination outside this scope.

If the CLEC has initiated dispute resolution with regard to the same change in more than one state, a single arbitrator can decide the postponement issue for all states in which the CLEC has initiated dispute resolution proceedings regarding the same issue.

This arbitration option is not an exclusive remedy and does not preclude any CLEC from using appropriate state commission procedures, expedited or otherwise, to raise issues or seek a postponement.

5.5.4.5 Arbitrator's Decision

The arbitrator shall decide the issue upon written submissions. The CLEC and Qwest both shall submit their position statements to the arbitrator and to each other by e-mail or facsimile within one business day from the date on which agreement regarding the identity of the arbitrator is reached.

In determining whether Qwest must postpone implementation of a proposed change, the arbitrator must apply the standards set forth in Section 5.5.3.1.

The arbitrator must provide his/her decision to Qwest and the CLECs within five (5) business days after receipt of the parties' position statements. The arbitrator's decision must be in writing, signed by the arbitrator, and must include a brief summary of the basis for the decision.

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5.5.4.6 Effect of Arbitrator's Decision

The parties agree to abide by the arbitrator's decision regarding a postponement of implementation in the state in which the decision applies until the decision expires. If the arbitrator's decision applies to more than one state, the decision will expire on a state by state basis. Unless the parties agree otherwise, the arbitrator's decision expires in a state when the first of any of the following occurs in that state:

- The regulatory or other authority from whom the CLEC has requested a postponement rules on the postponement request; or
- The dispute resolution proceeding initiated by the CLEC regarding the proposed change is dismissed, withdrawn, or otherwise concluded without a ruling on the CLEC's request for a postponement; or
- Any regulatory or other authority orders otherwise at the request of Qwest or the CLEC.

The arbitrator's decision regarding postponement of implementation is not binding precedent and shall have no precedential or persuasive value. The parties shall not cite or present the content of any arbitrator's decision as having precedential or persuasive value.

5.5.4.7 Arbitration Costs

Each party shall bear the costs it incurs in preparing and presenting its own case. The party against whom the issue is decided shall pay the costs for the arbitrator.

5.6 Comparability of Change Request Treatment

When a CLEC or Qwest submits a Product/Process CR in CMP, Sections 5.3 and 5.4, respectively, are applicable. While the processes contained in these sections are not identical, Qwest and the CLECs intend that the events and timeframes associated with Qwest and CLEC Product/Process CRs will be the same in all material respects for CRs that are comparable. Comparability of CRs is determined based on relative complexity, time for implementation and other relevant factors. The parties agree to periodically assess the time required to complete comparable CRs. To facilitate this assessment, Qwest will document the amount of time it takes to evaluate a Qwest originated Product/Process CR prior to CR submission to compare to the documented time it takes to evaluate a CLEC Product/Process CR. Evaluation time for Qwest Product/Process CRs shall include only activities similar to those Qwest performs for a CLEC originated Product/Process CR after CR submission until Qwest issues its final response.

5.7 Crossover Change Requests

During the operation of this CMP, there may be situations when systems CRs have requirements for product/process discussions or solutions, or when product/process CRs require System solutions. These crossover CR situations exist in three basic categories:

Category A. If a CR submitted to the product/process CMP is discovered to require a mechanized solution the following will occur:

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- Qwest will open a new systems CR, on behalf of the original CR originator, with a reference to the product/process CR number
- Qwest will close the product/process CR with a reference to the new systems CR number
- The new systems CR will comply with the CMP OSS Interface CR process(See Section 5.1)

Category B. If a CR submitted to the Systems CMP is discovered to require a manual solution the following will occur:

- Qwest will open a product/process CR, on behalf of the original CR originator, with a reference to the systems CR number;
- Qwest will close the systems CR with a reference to the new product/process CR number.
- This CR will comply with the CMP product/process CR process.

Category C. If a CR submitted to the Systems CMP is discovered to require an interim manual solution, the CR will be tracked as a systems CR for the length of the CR lifecycle including the development and implementation of both the interim manual and final mechanized solutions. In these situations, Qwest will open a second systems CR with the same number as the original CR and a "MN" suffix.

The determination to close and open CRs as described above will be made by the CMP body at a Monthly CMP Product/Process Meeting.

If a CR becomes a crossover CR, Qwest may request an ad hoc clarification meeting with the CR originator or request that a portion of the appropriate Monthly CMP Meeting be devoted to discussing the CR. If a CR is closed in one CMP arena and opened in the other, the new CR will retain the status, where feasible, and the date submitted of the old, "closed" CR. Under no circumstances will the CR be restarted.

All crossover CRs will be distinctly labeled in the Monthly CMP Meeting distribution packages and addressed as a separate item on the Monthly CMP Meeting agenda. All crossover CRs (including those closed in Categories A and B) will include the "X" designation identified in Section 5.9. All Regulatory and Industry Guideline CRs will be submitted as systems CRs and maintained in the Systems database until closure, or until they are deemed to require a manual process solution, at which point they will become product/process CRs.

5.8 Change Request Status Codes

The following status codes will be applied to Change Requests of all types (i.e., Regulatory, Industry Guideline, Qwest Originated, CLEC Originated). The status of the CR will be included in the interactive reports. CR status codes will not necessarily be assigned in the order set forth below, and not every status code will apply to every CR.

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- Submitted - A CR is updated to Submitted status when Qwest's CMP Manager has formally acknowledged the CR. The CR remains in Submitted status until Qwest has conducted a clarification meeting with the originator.
- Clarification – A CR is updated to Clarification status once the clarification meeting has been held with the originator.
- Evaluation – A CR is updated to Evaluation status if the CR requires further investigation by Qwest.
- Presented – A CR is updated to Presented status after the originator has presented it at the Monthly CMP Meeting.
- Pending Prioritization – The Pending Prioritization status is only applicable to CRs for which the impacted OSS Interface requires prioritization (e.g. IMA). A CR is updated to Pending Prioritization status after it has been presented and is waiting for Prioritization.
- Prioritized - The Prioritized status is only applicable to CRs for which the impacted interface is an OSS Interface that requires prioritization (e.g., IMA). A CR is updated to Prioritized status once it has been presented for prioritization and the Prioritization Process (Section 10.2) has been completed.
- Packaged -- A CR is updated to Packaged status from Prioritized status if it is included in the packaging option chosen for the release. Design work is continued on change requests that have been packaged. CRs not updated to Packaged status (from Prioritized status) will revert to Pending Prioritization status.
- Development – A product/process CR is updated to a Development status when Qwest's response requires development of a new or revised process. A systems CR is updated to Development status when development begins for the next OSS Interface Release.
- CLEC Test – A CR is updated to the CLEC Test status upon agreement by the participants in the Monthly CMP Meeting. CLECs have the ability to evaluate the effectiveness of Qwest's change and its implementation, provide feedback, and indicate whether further action is required. Through interaction between Qwest and the interested CLECs, a product/process Change as initially implemented may undergo modification. Depending on the magnitude of such modifications, it may be appropriate to return the CR to Development status. Problems found with newly deployed Systems changes will be handled in accordance with Production Support process as described in Section 12.0. Certain processes in Section 12.0 are also applicable to product/process changes. If no further action is required for a consecutive 60 day period, the status is updated to Completed, unless the parties agree otherwise.
- Completed – A CR is updated to Completed status when the CLECs and Qwest agree that no further action is required to fulfill the requirements of the CR.
- Denied – A CR is updated to Denied status when Qwest denies the CR.
- Deferred - A CR is updated to Deferred status if the originator does not intend to escalate or dispute the CR at the present time, but wants the ability to activate or close the CR at a later date.
- Pending Withdrawal – A CR is updated to a status of Pending Withdrawal when the originator requests that a CR be withdrawn from the CMP process. Change Requests with a status of Pending Withdrawal are reviewed at the appropriate Monthly CMP Meeting to determine if another party wishes to sponsor the CR.

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- Withdrawn - The CR receives a Withdrawn status when the CR originator requests that the CR be withdrawn from the CMP and the CR is not sponsored by another party.

5.9 Change Request Designations

In certain circumstances CR numbers will require special suffix designations to identify certain characteristics. Suffixes include:

- "CM" - Changes to the CMP framework
- "DR" - Dispute Resolution Process invoked on a CR
- "ES" - Escalation Process invoked on a CR
- "EX" - Change being implemented utilizing the Exception process
- "IG" - Industry Guideline CR
- "MN" – CR for a manual workaround related to an OSS Interface Change Request
- "RG" - Regulatory CR
- "SC" - Change being implemented as an SCRP request
- "X" - Crossover CR

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6.0 OSS INTERFACE RELEASE CALENDAR

Qwest will provide a rolling 12 month OSS Interface Release calendar in the distribution package of the first scheduled Monthly CMP Systems Meeting of each quarter. The calendar will show Release schedules, for all OSS Interfaces within the scope of CMP starting in that quarter and for a total of 12 months in the future. The following schedule entries will be made available, when applicable:

- Name of OSS Interface
- Date for CMP CR Submission Cutoff (for prioritized OSS Interfaces)
- Date for issuing Draft Release Notes
- Date when Initial Notification for new OSS Interfaces will be issued
- Date when Initial Notification for OSS Interface retirements will be issued
- Date when comparable functionality for OSS Interface retirements will be available
- Date for issuing Initial or Draft Technical Specifications
- Comment cycle timeline
- Prioritization, packaging and commitment timeline (for prioritized OSS Interfaces)
- Date for issuing Final Technical Specifications
- Testing period
- Date for issuing Final Release Notes
- Planned Release Production Date
- Release sunset dates (as applicable)

The OSS Interface Release calendar will be posted on the CMP Web site as a stand-alone document.

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Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

7.0 INTRODUCTION OF A NEW OSS INTERFACE

The process for introducing a new OSS Interface will be part of this CMP. Introduction of a new OSS Interface may include an application-to-application or a Graphical User Interface (GUI).

It is recognized that the planning cycle for a new OSS Interface, of any type, may be greater than the time originally allotted. In that case, discussions between CLECs and Qwest will be held prior to the announcement of the new OSS Interface.

With a new OSS Interface, CLECs and Qwest may define the scope of functionality introduced as part of the OSS Interface.

7.1 Introduction of a New Application-to-Application Interface

At least two hundred and seventy (270) calendar days in advance of the planned Release Production date of a new application-to-application interface, Qwest will issue a Release Notification, post the Preliminary Interface Implementation Plan on Qwest's Web site, and host a design and development meeting.

7.1.1 Initial Release Notification

The Initial Release Notification will include:

- Where practicable, the Release Announcement and Preliminary Interface Implementation Plan will include: Proposed functionality of the OSS Interface including whether the OSS Interface will replace an existing OSS Interface
- Proposed implementation timeline (e.g., milestone dates, CLEC/Qwest comment cycle)
- Proposed meeting date to review the Preliminary Interface Implementation Plan
- Exceptions to industry guidelines/standards, if applicable
- Planned Release Production Date

7.1.2 CLEC Comments to Initial Release Notification

CLECs have fourteen (14) calendar days from the Initial Release Notification to provide written comments/questions on the documentation. CLECs may submit comments via the Qwest CMP comment Web site at http://www.qwest.com/wholesale/cmp/comment.html.

7.1.3 Qwest Response to CLEC Comments

Qwest will respond with written answers to all CLEC issues within twenty-one (21) calendar days after the Initial Release Notification.

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7.1.4 Preliminary Implementation Plan Review Meeting

Qwest will review CLEC comments and the implementation schedule at the Preliminary Implementation Plan Review Meeting no later than two hundred and forty-two (242) calendar days prior to the Release Production Date.

7.1.5 Draft Interface Technical Specifications

Qwest will issue a notification associated with draft interface Technical Specifications no later than one hundred twenty (120) calendar days prior to implementing the Release. In addition, Qwest will confirm the schedule for the walk through of Technical Specifications, CLEC comments, and Qwest response cycle.

The Draft Interface Technical Specification notification will include:

- Purpose
- Logistical information (including a conference line) for walk through
- Reference to draft Technical Specifications, or Web site
- Additional pertinent material
- CLEC Comment/Qwest Response cycle
- Draft connectivity and firewall rules
- Draft Test Plan

7.1.6 Walk Through of Draft Interface Technical Specifications

Qwest will sponsor a walk through, including the appropriate internal Subject Matter Experts (SMEs), between one-hundred and ten (110) calendar days prior to Release Production and one hundred and six (106) calendar days prior to the Release Production Date. A walk through will afford CLEC SMEs the opportunity to ask questions and discuss specific requirements with Qwest's technical team and will take as much of this period as is necessary to address CLECs' questions. CLECs are encouraged to invite their technical experts, systems architects, and designers, to attend the walk through.

Qwest will lead the review of Draft Interface Technical Specifications. Qwest technical experts will answer the CLEC SMEs' questions. Qwest will capture action items such as requests for further clarification. Qwest will follow-up on all action items.

7.1.7 CLEC Comments on Draft Interface Technical Specifications

If the CLEC identifies issues or requires clarification, the CLEC must send written comments/concerns to Qwest no later than one-hundred and four (104) calendar days prior to the Release Production Date. CLECs may submit comments via the Qwest CMP comment Web site at http://www.qwest.com/wholesale/cmp/comment.html.

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7.1.8 Qwest Response to CLEC Comments

Qwest will review and respond with written answers to all CLEC issues, comments/concerns and action items captured at the walk through, no later than one hundred (100) calendar days prior to the Release Production Date. The answers will be shared with all CLECs, unless the CLECs question(s) are marked proprietary. Any changes that may occur as a result of the responses will be distributed to all CLECs in the Final Interface Technical Specifications notification. The Final Interface Technical Specifications notification will include the description of any change(s) made as a result of CLEC comments. The change(s) will be reflected in the final Technical Specifications.

7.1.9 Final Interface Technical Specifications

Generally, no later than one hundred (100) calendar days prior to the Release Production Date of the new OSS Interface, Qwest will issue the Final Technical Specifications to CLECs via Web site posting and a CLEC notification.

The Final Interface Technical Specifications notification will include:

- Summary of changes from Qwest response to CLEC comments on Draft Technical Specifications
- If applicable, Indication of type of change (e.g., documentation change, business rule change, clarification change)
- Purpose
- Reference to Final Technical Specifications, or Web site
- Additional pertinent material
- Final Connectivity and Firewall Rules
- Final Test Plan (including Joint Testing Period)
- Final Release Production Date
- Qwest response to CLEC comments

The implementation timeline for the Release will not begin until Final Interface Technical Specifications are provided. Production Support type changes within the thirty (30) calendar day test window can occur without advance notification but will be posted within twenty four (24) hours of the change.

7.2 Introduction of a New GUI

7.2.1 Initial Release Notification

Qwest will issue an Initial Release Notification no later than forty-five (45) calendar days in advance of the Release Production Date. This will include:

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- Proposed functionality of the OSS Interface including whether the new OSS Interface will replace an existing OSS Interface.
- Implementation timeline (e.g., milestone dates, CLEC/Qwest comment cycle, GUI overview meeting date)
- Release Production Date
- Logistics for GUI Overview Meeting

7.2.2 Draft Release Notes

Qwest will issue a Draft Release Notes notification no later than twenty-eight (28) calendar days in advance of the planned Release Production Date of a new GUI. At a minimum, the notification will include:

- Draft User Guide
- How and When Training will be administered

7.2.3 GUI Overview Meeting

The GUI Overview meeting will be held no later than twenty-seven (27) calendar days prior to the Release Production Date. At the meeting, Qwest will present an overview of the new OSS Interface.

7.2.4 CLEC Comments

At least twenty-five (25) calendar days prior to the Release Production Date. CLECs must forward their written comments and concerns to Qwest. CLECs may submit comments via the Qwest CMP comment Web site at http://www.qwest.com/wholesale/cmp/comment.html.

7.2.5 Qwest Response to CLEC Comments

Qwest will consider CLEC comments and respond with written answers as part of the Final Notification.

7.2.6 Final Release Notes

Qwest will issue Final Release Notes notification no later than twenty-one (21) calendar days prior to the Release Production date. The notification will include:

- A summary of changes from the Draft Release Notes notification, including type of changes (e.g., documentation change, clarification, business rule change).
- Final User Guide
- Final Training information
- Final Release Production Date.
- Qwest response to CLEC comments

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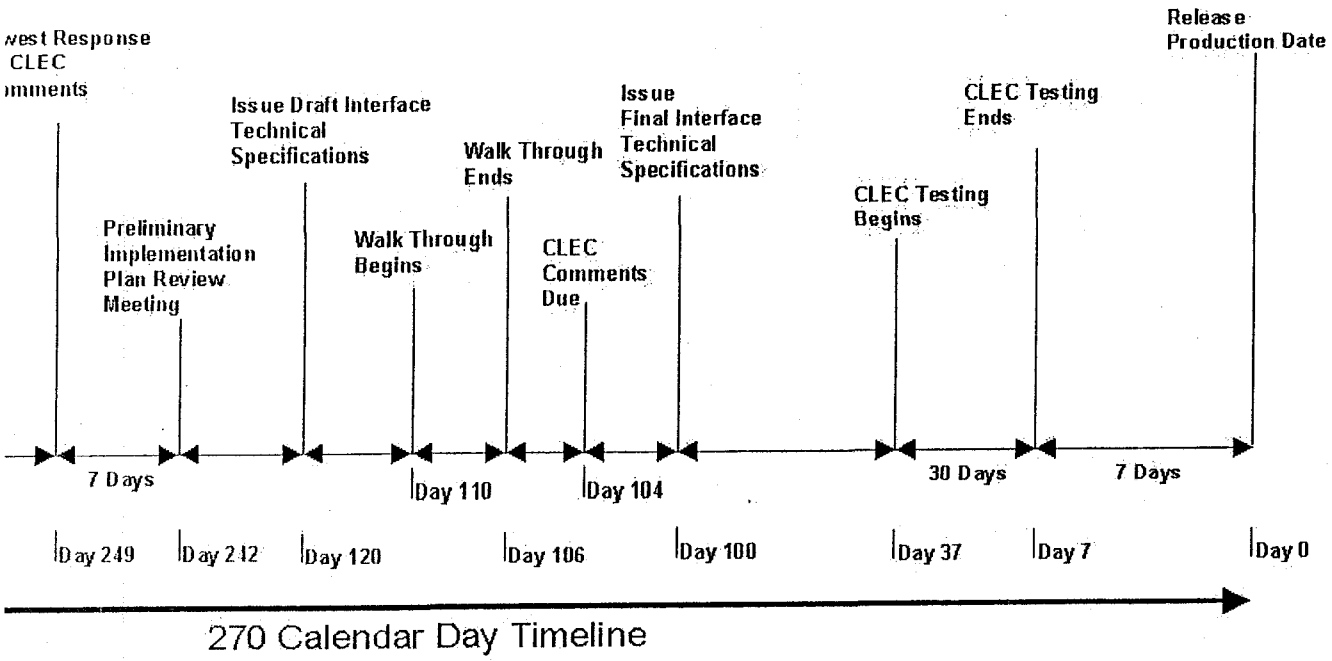
New Application-to-Application OSS Interface Timeline

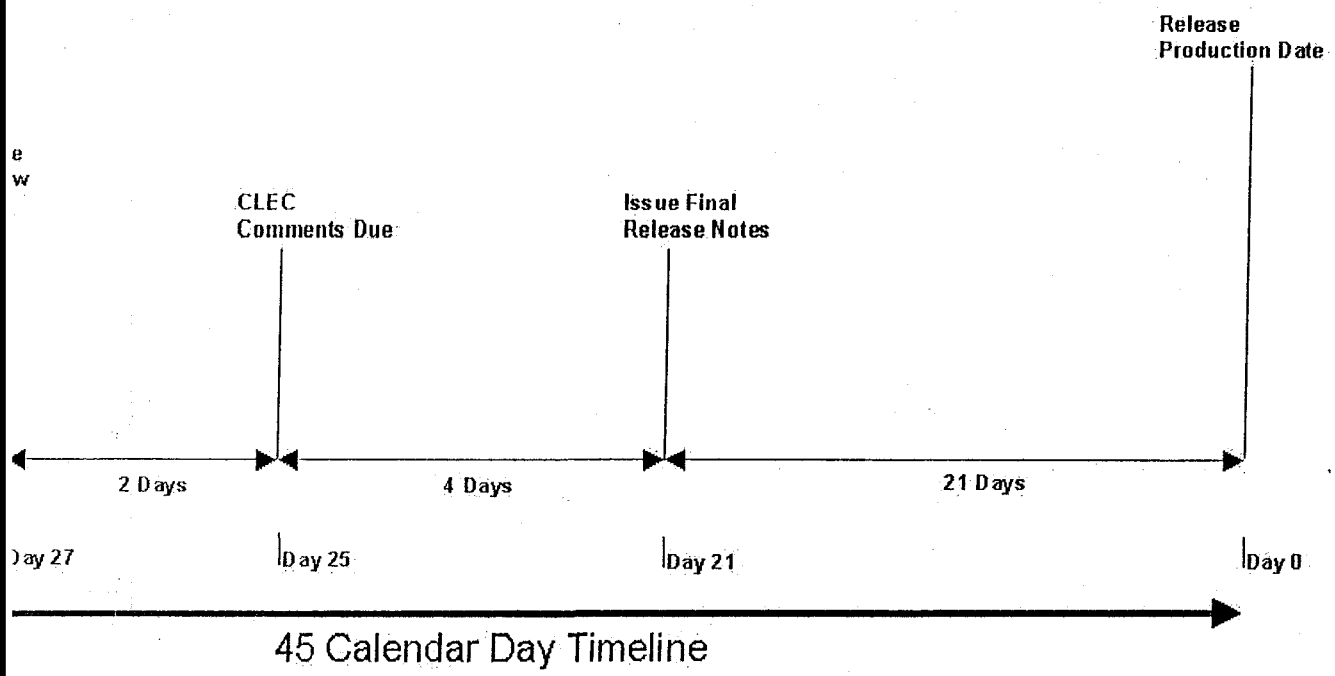
)west-CLEC Change Management Process
n of A New Application-to-Application OSS Interface Timeline



e are intended to occur on business days. If the date on which any event is scheduled to occur falls on a weekend or holiday, then Qwest and the CLECs may negotiate a revised timeline.

New Graphical User Interface (GUI) Timeline

est-CLEC Change Management Process
tion of A New Graphical User Interface (GUI) Timeline



intended to occur on business days. If the date on which any event is scheduled to occur falls on a
end or holiday, then Qwest and the CLECs may negotiate a revised timeline.

8.0 CHANGE TO AN EXISTING OSS INTERFACE

The process for changing an existing OSS Interface will be part of this CMP. Changes to an existing OSS Interface may include an application-to-application or a Graphical User Interface (GUI).

It is recognized that the planning cycle for a change to an OSS Interface, of any type, may be greater than the time originally allotted and that discussions between CLECs and Qwest may be held prior to the announcement of the change to the OSS Interface.

With a change to an OSS Interface, CLECs and Qwest may define the scope of functionality introduced as part of the OSS Interface.

Qwest standard operating practice is to implement three Major Releases and three Point Releases (for IMA only) within a calendar year. Unless mandated as a Regulatory Change, Qwest will implement no more than four (4) Releases per IMA OSS Interface requiring coding changes to the CLEC interfaces within a calendar year. Unless mandated as a Regulatory Change, the Major Release changes will occur no less than seventy-five (75) calendar days apart.

At a Monthly CMP Systems Meeting in the fourth quarter of each year, Qwest will communicate to the CLECs the IMA Major Release schedule and hourly capacity of each release for the next calendar year. Qwest will subsequently issue a notification containing the same information. Qwest will attempt to provide this information prior to any prioritization scheduled during the fourth quarter.

Application-to-Application OSS Interface

Qwest will support the previous Major Release of Interconnect Mediated Access (IMA) EDI for one hundred eighty (180) calendar days after the subsequent Major Release of IMA EDI has been implemented. In the event that IMA EDI major releases are implemented more than six (6) months apart, any CLEC desiring to delay retirement of the previous release should submit a CR requesting the delay. Qwest will review and grant the retirement delay up until sixty (60) days after the Release Production Date of the next Major Release; however, Qwest will maintain no more than three (3) Major Releases of IMA EDI in production at any time. Qwest may retire the extended release before the extension expires when all CLECs have migrated off the extended release, but no earlier than five (5) business days after the last scheduled CLEC migration from the extended release. CLECs who do not successfully migrate from the retiring release, must contact their Qwest EDI Implementation Team immediately to schedule a new migration. Any such new migration shall not be rescheduled beyond the sixty (60) day retirement delay. (A timeline illustrating the operation of this provision is provided at the end of Section 8.) Past Releases of IMA EDI will only be modified as a result of production support

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changes. When such production support changes are made, Qwest will also modify the related documentation. All other changes become candidates for future IMA EDI Releases.

Qwest makes one Release of the Electronic Bonding-Trouble Administration (EBTA) and billing interfaces available at any given time, and will not support any previous Releases.

Graphical User Interface (GUI)

Qwest makes one Release of a GUI available at any given time and will not support any previous Releases.

IMA GUI changes for a pre-order or ordering will be implemented at the same time as an IMA EDI Release.

8.1 Application-to-Application Interface

This section describes the timelines that Qwest, and any CLEC choosing to implement on the Qwest Release Production Date, will adhere to in changing existing application-to-application interfaces.[1] For any CLEC not choosing to implement on the Qwest Release Production Date, Qwest and the CLEC will negotiate a mutually agreed to CLEC implementation timeline, including testing.

8.1.1 Draft Interface Technical Specifications

Prior to Qwest implementing a change to an existing application-to-application interface, Qwest will notify CLECs of the draft Technical Specifications. Qwest will issue draft Technical Specifications no later than seventy-three (73) calendar days prior to the Release Production Date unless an exception has been granted. Technical Specifications are documents that provide information the CLECs need to code the application-to-application interface. The Draft Technical Specifications notification letter will include:

- Written summary of change(s)
- Planned time frame for Release Production
- Purpose
- Logistical information (including a conference line) for walk through
- Reference to draft Technical Specifications, or reference to a Web site with draft specifications
- Additional pertinent material
- Draft Technical Specifications documentation, or instructions on how to access the draft Technical Specifications documentation on the Web site.

[1] For a CLEC converting from a prior release, the CLEC implementation date can be no earlier than the weekend after the Qwest Release Production Date, if production LSR conversion is required.

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

8.1.2 Walk Through of Draft Interface Technical Specifications

Qwest will sponsor a walk through, including the appropriate internal Subject Matter Experts (SMEs), between sixty-eight (68) calendar days prior to the planned Release Production Date and fifty-eight (58) calendar days prior to the planned Release Production Date. A walk through will afford CLEC SMEs the opportunity to ask questions and discuss specific requirements with Qwest's technical team and will take as much of this period as is necessary to address CLECs' questions. CLECs are encouraged to invite their technical experts, systems architects, and designers, to attend the walk through.

Qwest will lead the review of the Draft Technical Specifications. Qwest technical experts will answer the CLEC SMEs' questions. Qwest will capture action items such as requests for further clarification. Qwest will follow-up on all action items and notify CLECs of responses forty five (45) calendar days prior to the planned Release Production Date.

8.1.3 CLEC Comments on Draft Interface Technical Specifications

If the CLEC identifies issues or requires clarification, the CLEC must send written comments to Qwest no later than fifty-five (55) calendar days prior to the planned Release Production Date. CLECs may submit comments via the Qwest CMP comment Web site at http://www.qwest.com/wholesale/cmp/comment.html.

8.1.4 Qwest Response to CLEC Comments

Qwest will review and respond with written answers to all CLEC issues, comments/concerns no later than forty-five (45) calendar days prior to final Release Production Date. The answers will be shared with all CLECs, unless the CLECs question(s) are marked proprietary. Any changes that may occur as a result of the responses will be distributed to all CLECs in the same notification letter. The notification will include the description of any change(s) made as a result of CLEC comments. The change(s) will be reflected in the Final Technical Specifications.

8.1.5 Final Interface Technical Specifications

The Final Interface Technical Specifications will include the following:

- Reference to Final Technical Specifications, or Web site
- Qwest response to CLEC comments
- Summary of changes from the prior Release, including any changes made as a result of CLEC comments on Draft Technical Specifications
- Indication of type of change (e.g., documentation change, business rule change, clarification change)
- Final Joint Test Plan including transactions which have changed
- The suite of re-certification test scenarios

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

- Joint Testing Period
- Final Release Production Date

Qwest will issue Final Interface Technical Specifications no later than forty-five (45) calendar days before the final Release Production Date, unless the exception process has been invoked. The implementation timeline for the Release will not begin until Final Technical Specifications are provided. Production Support type of changes that occur within the thirty (30) calendar day test window can occur without advance notification but will be posted within 24 hours of the change.

8.1.6 Joint Testing Period

Qwest will provide a thirty (30) day test window for any CLEC who desires to jointly test with Qwest prior to the Release Production Date.

8.1.7 Release Documentation Addenda

After the Final Technical Specifications are published, there may be other changes made to documentation or the coding that is documented in the form of addenda.

- 1st Addendum – 2 weeks after the Release the 1st addendum is sent to the CLECs, if needed.
- Subsequent Addendum's – Subsequent addendum's are sent to the CLECs after the Release Production Date as needed. There is no current process and timeline.
- EDI CLECs –one hundred eighty (180) calendar days after the Release those CLECs using EDI are required to cut over to the new Release. CLECs are not required to support all new Releases.

8.2 Graphical User Interface (GUI)

8.2.1 Draft GUI Release Notes

Prior to implementation of a change to an existing GUI, Qwest will notify CLECs of the Draft GUI Release Notes and the planned Release Production Date.

Notification will occur no later than twenty-eight (28) calendar days prior to the planned Release Production Date unless an exception has been granted. This notification will include draft user guide information if necessary.

The notification will contain:

- Written summary of change(s)
- Planned time frame for Release Production
- Any cross-reference to draft documentation such as the user guide or revised user guide pages.

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

8.2.2 CLEC Comments on Draft Interface Release Notification

CLECs must provide comments/questions on the Draft GUI Release Notes no less than twenty-five (25) calendar days prior to the planned Release Production Date. CLECs may submit comments via the Qwest CMP comment Web site at http://www.qwest.com/wholesale/cmp/comment.html or via an e-mail to cmpcomm@qwest.com.

8.2.3 Qwest Response to Comments

Qwest will consider CLEC comments and will address them in the Final GUI Release Notification no later than twenty one (21) calendar days before the Release Production Date.

8.2.4 Content of Final Interface Release Notification

The Final Interface Release Notification, will include:

- Final notification letter
- Summary of changes from draft GUI Release notification
- Final user guide (or revised pages)
- Final Release Production Date
- Qwest Response to CLEC comments

Qwest will issue the Final Interface Release Notification no later than twenty-one (21) calendar days before the final Release Production Date. Qwest will post this information on the CMP Web site. Production support type changes that occur without advance notification will be posted within 24 hours of the change. The implementation timeline for the Release will not begin until all related documentation is provided.

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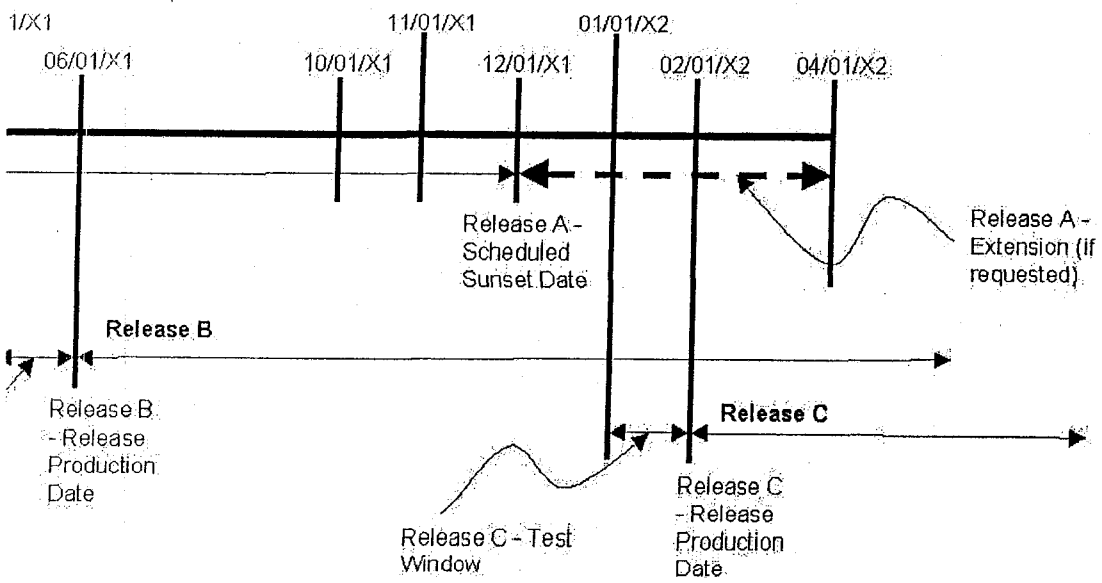
Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

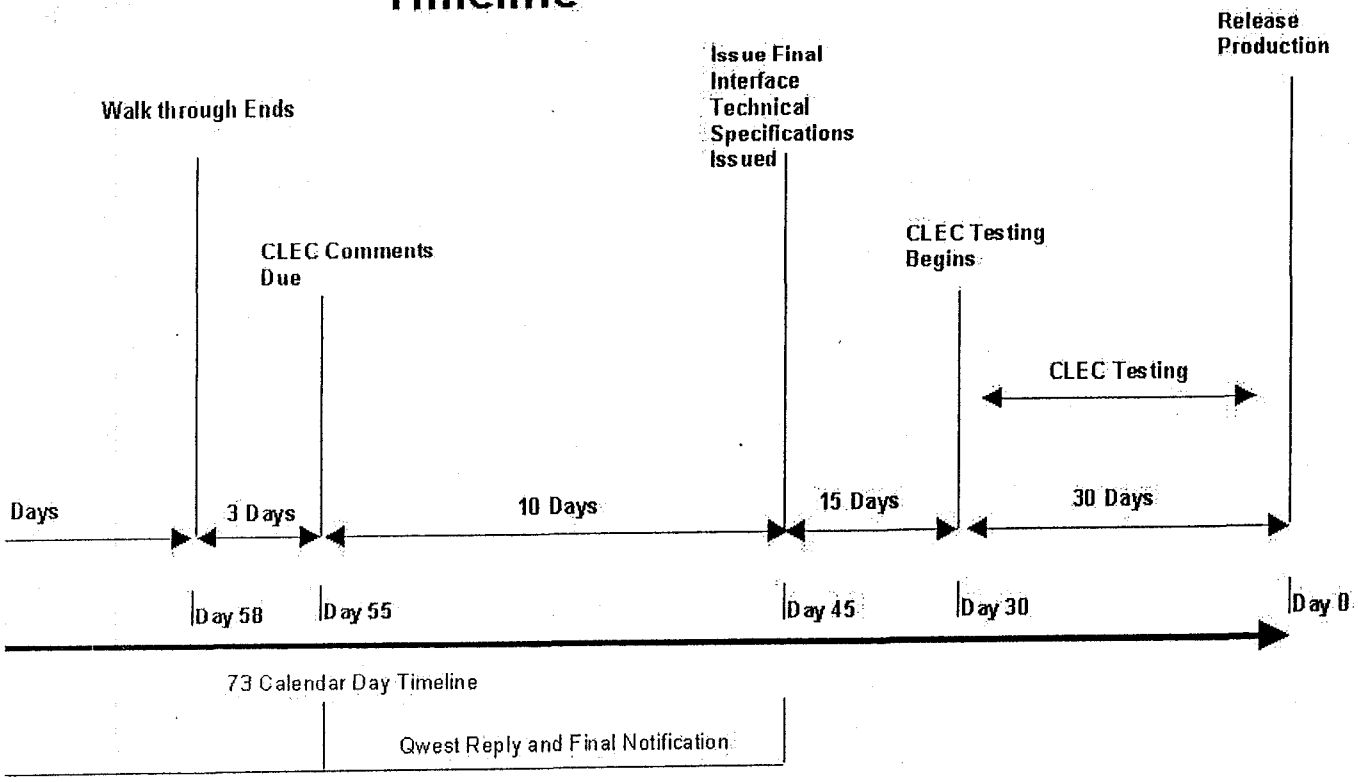
n Illustrative Timeline

Qwest-CLEC Change Management Process
Change to an Existing OSS Interface
Release Extension Illustrative Timeline



Existing Application-to-Application OSS Interface Timeline

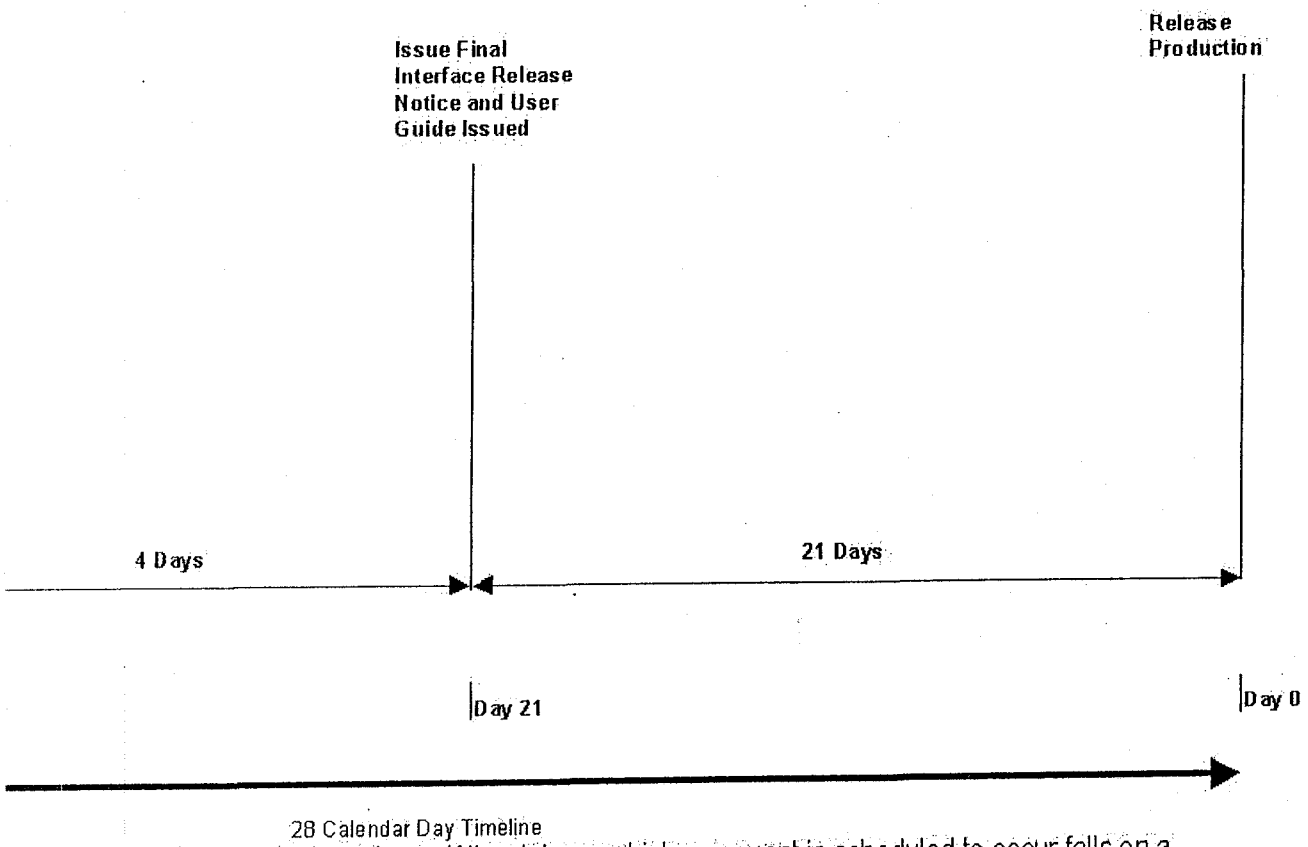
Qwest-CLEC Change Management Process
An Existing Application-to-Application OSS Interface Timeline



ıre intended to occur on business days. If the date on which any event is scheduled to occur falls on a ekend or holiday, then Qwest and the CLECs may negotiate a revised timeline.

ting Graphical User Interface (GUI) Timeline

vest-CLEC Change Management Process
An Existing Graphic User Interface (GUI) Timeline



intended to occur on business days. If the date on which any event is scheduled to occur falls on a end or holiday, then Qwest and the CLECs may negotiate a revised timeline.

9.0 RETIREMENT OF AN EXISTING OSS INTERFACE

The retirement of an existing OSS Interface occurs when Qwest ceases to accept transactions using a specific OSS Interface. This may include the removal of a GUI or a protocol transmission of information (Application-to-Application) interface.

9.1 Application-to-Application OSS Interface

9.1.1 Initial Retirement Notification

At least two hundred seventy (270) calendar days before the retirement date of application-to-application interfaces, Qwest will share the retirement plans via Web site posting and CLEC notification. The scheduled new application-to-application interface is to be in a CLEC certified production Release prior to the retirement date of the older interface.

Alternatively, Qwest may choose to retire an interface if there is no CLEC usage of that interface for the most recent ninety (90) consecutive calendar days. Qwest will provide thirty (30) calendar day notification of the retirement via Web posting and CLEC notification.

Qwest will issue the initial Retirement Notification no later than two hundred seventy (270) calendar days before retirement. The Initial Retirement Notification will include:

- The rationale for retiring the OSS Interface
- Available alternative interface options for existing functionality
- The proposed detailed retirement timeline (e.g., milestone dates, CLEC-Qwest comment and response cycle)
- Planned retirement date

9.1.2 CLEC Comments to Initial Retirement Notification

CLEC comments on the Initial Retirement Notification are due to Qwest no later than fifteen (15) calendar days following the Initial Retirement Notification. CLECs may submit comments via the Qwest CMP comment Web site at http://www.qwest.com/wholesale/cmp/comment.html.

9.1.3 Qwest Response to Comments

Qwest will consider CLEC comments and respond in the Final Retirement Notification.

9.1.4 Final Retirement Notification

The Final Retirement Notification will be provided to CLECs no later than two-hundred and twenty-eight (228) calendar days prior to the retirement date of the application-to-application interface. The Final Retirement Notification will contain:

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

- The rationale for retiring the OSS Interface (e.g., no usage or replacement)
- If applicable, where the replacement functionality will reside in a new interface and when the new interface has been certified by a CLEC
- Qwest's responses to CLECs' comments/concerns
- Actual retirement date

9.1.5 Comparable Functionality

Unless otherwise agreed to by Qwest and a CLEC user, when Qwest issues the Initial Retirement Notification the retirement of an interface for which a comparable interface does or will exist, a CLEC user will not be permitted to commence building to the retiring interface. CLEC users of the retiring interface will be grandfathered until the retirement of the interface. Qwest will ensure that an interface with comparable functionality is available no later than one hundred and eighty (180) calendar days prior to retirement of an Application-to-Application interface.

9.2 Graphical User Interface (GUI)

9.2.1 Initial Retirement Notification

At least sixty (60) calendar days in advance of the retirement date of a GUI, Qwest will share the retirement plans via Web site posting and CLEC notification. The scheduled new interface is to be in a CLEC certified production Release prior to the retirement of the older interface.

Alternatively, Qwest may choose to retire a GUI if there is no CLEC usage of that interface for the most recent ninety (90) consecutive calendar days. Qwest will provide thirty (30) calendar day notification of the retirement via Web posting and CLEC notification.

Initial Retirement Notification will include:

- The rationale for retiring the OSS Interface
- Available alternative interface options for existing functionality
- The proposed detailed retirement timeline (e.g., milestone dates, CLEC-Qwest comment and response cycle)
- Planned retirement date

9.2.2 CLEC Comments to Initial Retirement Notification

CLEC comments to the Initial Retirement Notification are due to Qwest no later than fifteen (15) calendar days following the Initial Retirement Notification. CLECs may submit comments via the Qwest CMP comment Web site at http://www.qwest.com/wholesale/cmp/comment.html.

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

9.2.3 Qwest Response to Comments

Qwest will consider CLEC comments and respond in the Final Release Notification.

9.2.4 Comparable Functionality

Qwest will ensure comparable functionality no later than thirty-one (31) days before retirement of a GUI.

9.2.5 Final Retirement Notification

The Final Retirement Notification, for GUI retirements, will be provided to CLECs no later than twenty-one (21) calendar days before the retirement date. The Final Retirement Notification will contain:

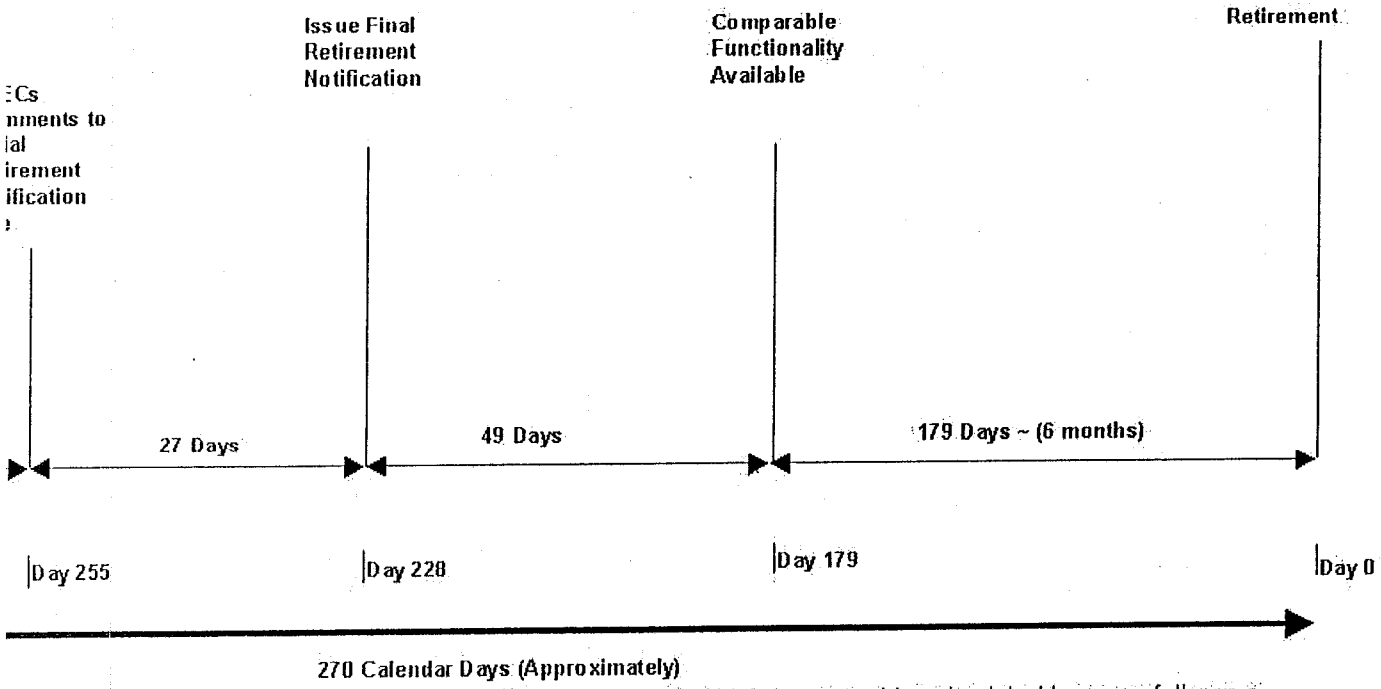
- The rationale for retiring the OSS Interface (e.g., no usage or replacement)
- If applicable, where the replacement functionality will reside in a new interface and when the new interface has been certified by a CLEC
- Qwest's responses to CLECs' comments/concerns
- Actual retirement date

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

Existing Application-to-Application OSS Interface Timline

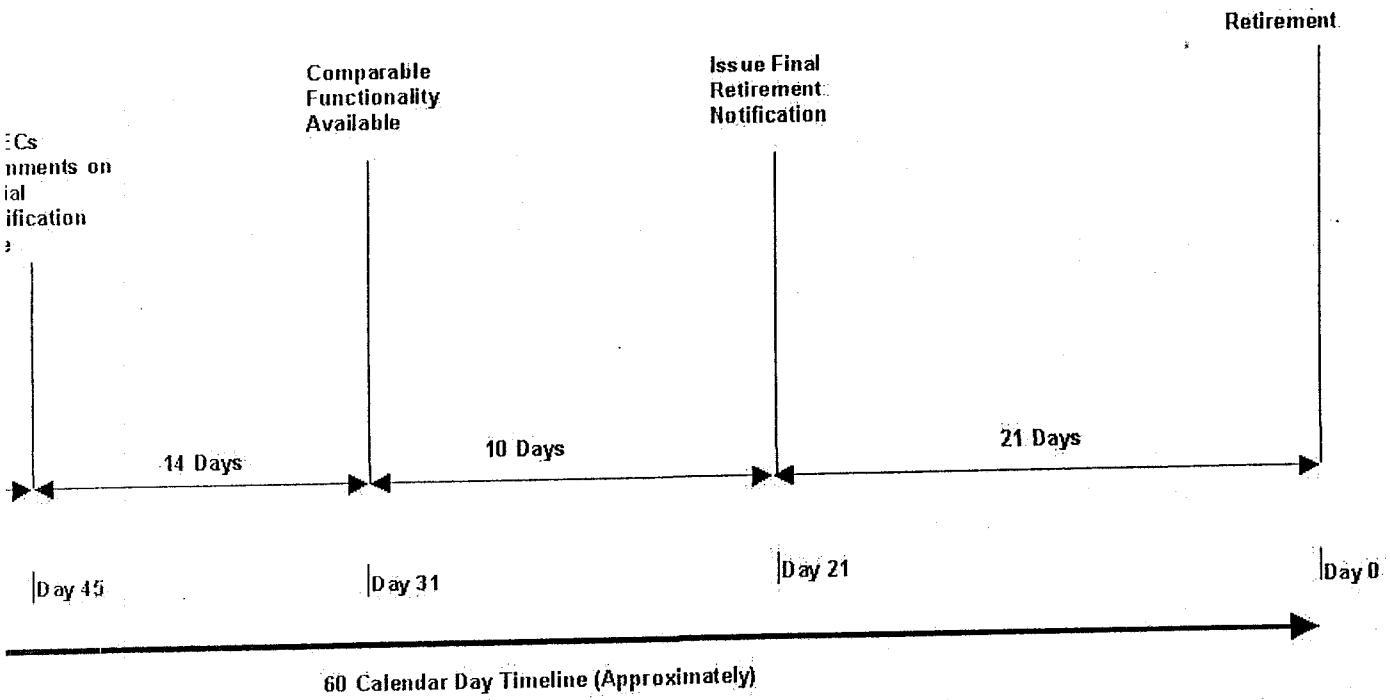
Qwest-CLEC Change Management Process
of An Existing Application-to-Application OSS Interface Timeline



ve are intended to occur on business days. If the date on which any event is scheduled to occur falls on a weekend or holiday, then Qwest and the CLECs may negotiate a revised timeline.

Existing Graphic User Interface Timeline

ɿwest-CLEC Change Management Process
rement of An Existing Graphic User Interface Timeline



ove are intended to occur on business days. If the date on which any event is scheduled to occur falls on a weekend or holiday, then Qwest and the CLECs may negotiate a revised timeline.

10.0 PRIORITIZATION

Each OSS Interface Release is prioritized separately. If the Systems CMP Change Requests for any interface do not exceed Release capacity, no prioritization for that Release is required. The prioritization process provides an opportunity for CLECs and Qwest to prioritize OSS Interface Change Requests (CRs). CRs for introduction of a new interface or retirement of an existing interface are not subject to prioritization and will follow the introduction or retirement processes outlined in Sections 7.0 and 9.0, respectively.

10.1 Test Environment Releases

When an OSS Interface release is prioritized, some of the prioritized OSS Interface CRs will cause a change in that OSS Interface's corresponding test environment. These changes will be included in the test environment release that is made available thirty (30) days prior to the OSS Interface Release Production Date, and will not be subject to prioritization. The business and systems requirements for these test environment changes will be developed in the same order as the prioritized OSS Interface CRs. Qwest will ensure that the resources allocated to the test environment are sufficient to complete the corresponding OSS Interface Release changes described above.

Any remaining test environment capacity will be allocated to CRs that are specific to the test environment. CRs that are specific to the test environment will be prioritized in accordance with Section 10.0.

Qwest's OSS Interface production environment and test environment development efforts will not compete for resources.

10.2 Regulatory Change Requests

Regulatory changes, are defined in Section 4.0. Separate procedures are required for prioritization of CRs requesting Regulatory changes to ensure that Qwest can comply with the recommended or required implementation date, if any. The process for determining whether a CR is a Regulatory Change is set forth in Section 5.1.

Qwest will send CLECs a notification when it posts Regulatory CRs to the Web and identify when comments are due, as described in Section 5.1. Regulatory CRs will also be identified in the Monthly CMP Systems Meeting distribution package.

10.2.1 Regulatory Changes

For Regulatory Changes, Qwest will implement changes no later than the time specified in the legislation, regulatory requirement, or court ruling. If no time is specified, Qwest will implement the change as soon as practicable.

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Regulatory CRs will be ranked with all other CRs. If the implementation date for a Regulatory CR requires all or a part of the change to be included in the upcoming Major Release, the CR will not be subject to ranking and will be automatically included in that Major Release.

10.2.2 Industry Guideline Changes

Industry Guideline CRs will be identified in the Monthly CMP Systems Meeting distribution package. Industry Guideline CRs will be ranked with all other systems CRs during prioritization as described in Section 10.0. If an Industry Guideline CR is prioritized high enough to be included in the business and systems requirements phase and is dependant on a "foundation" CR, the "foundation" CR will automatically be worked in conjunction with the Industry Guideline CR.

10.2.3 Regulatory Change Implementation

When more than one Major Release is scheduled before the mandated or recommended implementation date for a Regulatory CR, Qwest will present information to CLECs regarding any technical, practical, or development cycle considerations that may affect Qwest's ability to implement the CR in any particular Major Release as part of the CR review and continue to provide information up to the packaging options. At the Monthly CMP Systems Meeting where the Regulatory CR is presented, Qwest will advise CLECs of the possible scheduled Releases in which Qwest could implement the CR and the CLECs and Qwest will determine how to allocate those CRs among the available Major Releases, taking into account the information provided by Qwest regarding technical, practical, and/or development considerations. If the Regulatory CR is not included in a prior Release, it will be implemented in the latest Release specified by Qwest.

10.3 Prioritization Process

10.3.1 Prioritization Review

At the last Monthly CMP Systems Meeting before Prioritization, Qwest will facilitate a Prioritization Review including a discussion of all CRs eligible for prioritization in a Major Release. If there are any Industry Guideline CRs eligible for prioritization, Qwest will identify all Industry Guideline CRs that would need to be implemented prior to or in conjunction with such CRs. Qwest will distribute all materials five (5) calendar days prior to the Prioritization Review. The materials will include:

- Agenda
- Summary document of all CRs eligible for prioritization including identification of dependencies (see Appendix A - Sample – IMA 11.0 Rank Eligible CRs)

Both CLECs and Qwest will have appropriate Subject Matter Experts in attendance at the Prioritization Review. The review and discussion meetings are open to all CLECs.

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Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

The Prioritization Review objectives are to:

- Allow CLECs and Qwest to discuss eligible OSS Interface or test environment Change Requests by providing specific input as to the relative importance that CLECs, as a group, and Qwest assign to each such Change Request.

10.3.2 Ranking Process

Within three (3) business days following the Monthly CMP Systems Meeting that includes the Prioritization Review, Qwest will distribute the Prioritization Form for ranking. Ranking will be conducted according to the following guidelines:

- Each CLEC and Qwest may submit one completed Prioritization Form. The ranking must be submitted by a Point of Contact. The ranking will be submitted to the Qwest CMP Manager in accordance with the process described in Section 10.3.3 below. Refer to Appendix B: Sample – IMA 11.0 Initial Prioritization Form
- Qwest and each CLEC ranks each Change Request on the Prioritization Form by providing a point value from 1 through n, where n is the total quantity of CRs. The highest point value will be assigned to the CR that Qwest and CLECs wish to be implemented first. The total points will be calculated by the Qwest CMP Manager and the results will be distributed to the CLECs in accordance with the process described in Section 10.3.3 below. Refer to Appendix C : Sample – IMA 11.0 Prioritization List.

10.3.3 Ranking Tabulation Process

CLECs and Qwest who choose to vote must submit their completed Prioritization Form via e-mail, cmpcr@qwest.com, within three (3) business days following Qwest's distribution of the Prioritization Form. Within two (2) business days following the deadline for submission of ranking, Qwest will tabulate all rankings and e-mail the resulting Initial Prioritization List to the CLECs. The results will be announced at the next scheduled Monthly CMP Systems Meeting. Prioritization is based on the results of the votes received by the deadline. Based on the outcome of the final ranking of the CR candidates, an Initial Prioritization List is produced.

10.3.4 Ranking of Late Added CRs

For those late added CRs that are eligible for inclusion, as a candidate, in the most recently prioritized Release, the prioritization process will be as follows.

- Within three (3) business days following the Monthly CMP Systems Meeting that resulted in the decision to include the late added CR as a candidate in the recently prioritized Release, Qwest will distribute the late added CR for ranking, along with the initial prioritization.
- Each CLEC and Qwest may submit a suggested rank for the late added CR. The suggested rank will be the number corresponding to the position on the Initial Prioritization List that the CLEC or Qwest believes the late added CR should be inserted.

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

- CLECs and Qwest who choose to vote must return their suggested rank for the late added CR via e-mail within three (3) business days following Qwest's distribution of the late added CR for ranking.

Within two (2) business days following the deadline for the return of the suggested rank, Qwest will tabulate the results by averaging the returned suggested ranks for the late added CR. Qwest will insert the late added CR into the Initial Prioritization List at the resulting point on the list and will renumber the remaining candidates on the list based on this insertion. Qwest will e-mail an updated Prioritization List to the CLECs. The results will be announced at the next scheduled Monthly CMP Systems Meeting.

10.3.5 Withdrawal of Prioritized CRs

A CLEC or Qwest may elect to withdraw a CR that has been prioritized for an OSS Interface Release. This process may be invoked at any time between the prioritization process and the commitment for the Release. Qwest will determine its ability to work additional CRs for the Release based upon the timing of the withdrawal request. After commitment, a CLEC or Qwest could request the CR be withdrawn, however, the withdrawal of the CR may not be feasible based upon the development status at the time of the withdrawal request. The process will be as follows:

- The originating CLEC or Qwest will submit an e-mail request to the Qwest CMP Manager, cmpcr@qwest.com, indicating that they wish to withdraw the CR. This e-mail must be sent no later than twenty one (21) calendar days prior to the Monthly CMP Systems Meeting at which the request will be discussed. The written request must contain:
  - the CR number
  - the CR title
  - an explanation of why the originator wishes to withdraw the CR
- Within two (2) business days after receipt of the request to withdraw the CR the CMP Manager will notify, in writing, all of the CLECs that submitted a prioritization ranking. The subject line will note "INTENT TO WITHDRAW PRIORITIZED CR [number]." The notification will include:
  - the CR number
  - the CR title,
  - the ranking that it received from the prioritization,
  - the explanation of why the originator wishes to withdraw the CR
- If a CLEC or Qwest disagrees with the withdrawal of the CR from the Release, they have the option to assume sponsorship of that CR. They may do so by notifying the CMP Manager, cmpcr@qwest.com, in writing of their intent to assume sponsorship of the CR within five (5) business days after the CMP Manager has sent the intent to withdraw e-mail. If the CMP Manager receives no response within five (5) business days, then the CR will be withdrawn. The new status will be reviewed in the next Monthly CMP Systems Meeting.

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

10.4 Special Change Request Process (SCRP)

In the event that a systems CR is not ranked high enough in prioritization for inclusion in the next Release, or as otherwise provided in this CMP, the CR originator may elect to invoke the CMP Special Change Request Process (SCRP) as described in this section. In the event that a carrier submits a CR after prioritization and wishes to invoke the SCRP, the originator may elect not to follow the Late Added CR process as defined in Section 10.3.4.

The SCRP does not supercede the process defined in Section 5.0 (Change Request Origination Process).

The foregoing process applies to Qwest and CLEC originated CRs. In the event a CR is submitted through the SCRP, Qwest agrees that it will not divert IT resources available to work on the CMP systems CRs, to support the SCRP request. Qwest will have to apply additional resources to, and track, the additional work required for the CR it seeks to implement through the SCRP.

All time intervals within which a response is required from one Party to another under this section are maximum time intervals. Each Party agrees that it will provide all responses in writing to the other Party as soon as the Party has the information and analysis required to respond, even if the time interval stated herein for a response is not over.

10.4.1 SCRP Request Form

To invoke the SCRP, the CR originator must send an e-mail to the Qwest CMP SCRP mailbox (cmpesc@qwest.com). The subject line of the e-mail message must include:

- "SCRP FORM"
- CR number and title
- CR originator's company name

The text of the e-mail message must include:

- Description of the CR
- A completed SCRP Form (See Appendix E)
- A single point of contact for the SCRP request including:
  - Primary requestor's name and company
  - Phone number
  - E-mail address
- Circumstances which have necessitated the invocation of the SCRP
- Desired implementation date
- If more than one company is making the SCRP request, the names and point of contact information for the other requesting companies.

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

10.4.2 Qwest Acknowledges SCRP Request Receipt with a Confirmation E-mail

Within two (2) business days following receipt of the SCRP request e-mail, Qwest will acknowledge receipt of the complete SCRP request e-mail with a confirmation e-mail and advise the SCRP Requestor of any missing information needed for Qwest to process and analyze the request. When the SCRP request e-mail is complete, the SCRP confirmation e-mail will include:

- Date and time of receipt of complete SCRP request e-mail
- Date and time of SCRP confirmation e-mail
- SCRP title and number
- The name, telephone number and e-mail address of the assigned Qwest manager
- Amount of the non-refundable Processing Fee as specified in Section 10.4.8.

10.4.3 Process Fee Invoice

Within one (1) business day of sending the SCRP confirmation e-mail Qwest will bill the SCRP Requestor a non-refundable Processing Fee as specified in Section 10.4.8 below.

10.4.4 SCRP Review Meeting

Within ten (10) business days after the SCRP confirmation e-mail, Qwest will schedule and hold a review meeting with the SCRP Requestor to review Qwest's analysis of the request.

10.4.5 Preliminary SCRP Quote and Review Meeting

During business and systems requirements analysis, Qwest will review the SCRP request to determine if it has any affinities with CRs packaged for the planned OSS Interface Release. As soon as feasible, but in any case within thirty (30) business days, after receipt of a completed SCRP request form, Qwest will schedule and hold a meeting with the SCRP Requestor to provide and review:

- An estimated Preliminary SCRP quote. The SCRP quote will, at a minimum, include the following information:
  - A description of the work to be performed
  - Estimated Development costs with a cap on cost
  - Targeted Release
  - An estimate of the terms and conditions surrounding the firm SCRP quote. (If the estimate increases before Qwest issues the Firm SCRP Quote, Qwest will communicate the cost increases to the SCRP Requestor.) The SCRP Requestor must comply with payment terms as outlined in Section 10.4.7 before Qwest proceeds with the request.
- An invoice covering the business and systems requirements analysis
  - Payment for this invoice is due no later than thirty (30) calendar days following Qwest's written issuance of the Preliminary SCRP Quote. Qwest will not proceed with further

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development in support of the SCRP Request until the business and systems analysis and processing invoices are paid.

10.4.5.1 SCRP Requestor Accepts the Preliminary Quote and Decision for Qwest to Proceed

The SCRP Requestor has ten (10) business days, upon receipt of the SCRP quote, to either agree to purchase under the quoted price or cancel the SCRP request.

If the SCRP Requestor accepts the SCRP Preliminary Quote, the SCRP Requestor must send an e-mail to the assigned Qwest manager with the following information:

The subject line of the e-mail message must include:

- "SCRP PRELIMINARY QUOTE ACCEPTED"
- CR number and title
- CR originator's company name

The text of the e-mail message must include:

- Statement accepting SCRP Preliminary Quote, planned OSS Interface Release date, and terms and conditions
- CR originator's name, phone number, and e-mail address

10.4.5.2 SCRP Requestor Asks to Change the SCRP Request

If the SCRP Requestor decides to modify the SCRP request after Qwest provides the preliminary SCRP Quote, the SCRP requestor must submit a written request for change to the assigned Qwest manager. If changes are acceptable to Qwest, Qwest will notify the SCRP Requestor by e-mail within five (5) business days after receipt of such request for a change with a revised preliminary SCRP Quote, if applicable. The SCRP Requestor must inform Qwest, in writing, within five (5) business days, if the modified SCRP quote is acceptable, further changes are required, or the SCRP request is cancelled.

10.4.5.3 SCRP Requestor Cancels the SCRP Request

The last point at which a SCRP Request may be cancelled is at the Monthly CMP Meeting at which Qwest presents the CRs that Qwest has committed to in the Release. Otherwise, the SCRP request will be implemented with the Release and the SCRP Requestor is obligated to pay the full amount of the firm SCRP quote consistent with the payment schedule described below in Section 10.4.7.

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10.4.6 Firm SCRP Quote and Review

Qwest will provide the SCRP Requestor a Firm SCRP Quote when Qwest commits CRs to the specific OSS Interface Release.

Qwest will send an e-mail to the SCRP Requestor with the following information:

- The subject line of the e-mail message must include:
  - "FIRM SCRP QUOTE"
  - CR number and title
  - CR originator's company name
- The text of the e-mail message must include:
  - Final SCRP quote and terms and conditions
  - Committed implementation date, or OSS Interface Release
  - Qwest contact name, phone number, and e-mail address

Qwest will schedule and hold a meeting to review the quote no less than ten (10) days following issuance of the Firm SCRP Quote. At this meeting Qwest will review the elements of the Firm Quote and the firm Release Date of the targeted Release.

10.4.7 Payment Schedule

The SCRP Requestor must pay 50% of the Firm SCRP Quote no more than ten (10) calendar days following the scheduled Release date and the remaining 50% of the Firm SCRP Quote within thirty (30) calendar days after the scheduled Release date.

10.4.8 Applicable SCRP Charges

This section describes the different costs for a SCRP request.

- Processing Fee – a one-time flat fee that must be paid within thirty (30) calendar days after the Qwest-SCRP Review meeting to review the SCRP form. This fee is non-refundable and is treated separately from those charges for development and implementation as described under "Charges for the SCRP Request" below.
- Charges for Business and Systems Requirements - These charges include the costs of developing business and systems requirements.
- Charges for the Development of the SCRP Request – These charges, included in the Preliminary and Firm SCRP Quotes, including labor charges, time and capital costs incurred as a result of developing code and performing testing.

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11.0 APPLICATION-TO-APPLICATION INTERFACE TESTING

If a CLEC is using an application-to-application interface, the CLEC must work with Qwest to certify the business scenarios that CLEC will be using in order to ensure successful transaction processing in production. If multiple CLECs are using a service bureau provider, the service bureau provider need only be certified for the first participating CLEC; subsequent CLECs using the service bureau provider need not be re-certified. Qwest and CLEC shall mutually agree to the business scenarios for which CLEC requires certification. Certification will be granted for the specified Release of the application-to-application interface. If CLEC is certifying multiple products or services, CLEC has the option of certifying those products or services serially or in parallel if technically feasible.

New Releases of the application-to-application interface may require re-certification of some or all business scenarios. A determination as to the need for re-certification will be made by the Qwest coordinator in conjunction with the Release Manager of each Release. Notification of the need for re-certification will be provided to CLEC as the new Release is implemented. The suite of re-certification test scenarios will be provided to CLECs with the Final Technical Specifications. If CLEC is certifying multiple products or services, CLEC has the option of certifying those products or services serially or in parallel, if technically feasible. If multiple CLECs are using a service bureau provider, the service bureau provider need only be re-certified for the first participating CLEC; subsequent CLECs using the service bureau provider need not be re-certified.

Qwest provides a separate Customer Test Environment (CTE) for the testing of transaction based application-to-application interfaces for pre-order, order, and maintenance/repair. The CTE will be developed for each Major Release and updated for each Point Release that has changes that were disclosed but not implemented as part of the Major Release. Qwest will provide test files for batch/file interfaces (e.g., billing).

The CTE for Pre-order and Order currently includes:

- Stand Alone Test Environment (SATE)
- Interoperability Testing Environment

The CTE for Maintenance and Repair currently includes:

- CMIP Interface Test Environment (MEDIACC)

Qwest provides Initial Implementation Testing, and Migration Testing (from one Release to the next) for all types of OSS Interface Change Requests. Such testing provides the opportunity to test the code associated with those OSS Interface exchange requests. The CTE will also provide the opportunity for regression testing of OSS Interface functionality.

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11.1 Testing Process

Qwest will send an industry notification, including testing schedules (see Section 8.0 – Changes to Existing OSS Interfaces), to CLECs so they may determine their intent to participate in the test. CLECs wishing to test with Qwest must participate in at least one joint planning session and determine:

- Connectivity (required)
- Progression Testing (required)
- Controlled Production Testing (required)
- Production Turn-up (required)
- A test schedule (required) that reflects agreed upon dates for phases

A joint CLEC-Qwest test plan may also include some or all of the following based on type of testing requested:

- Requirements Review
- Test Data Development

Qwest will communicate any agreed upon changes to the test schedule. CLECs are responsible for establishing and maintaining connectivity to the CTE.

The CLEC should, in general, experience response times similar to production provided a CLEC uses the same software components and similar connectivity configuration in its test environment that it does in production. This environment is not intended for volume testing. The CTE contains the appropriate applications for pre-ordering and Local Service Request (LSR) ordering, including the service order processor. Production code problems identified in the test environment will be resolved by using the Production Support process as outlined in Section 12.0.

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12.0 PRODUCTION SUPPORT

12.1 Notification of Planned Outages

Planned Outages are reserved times for scheduled maintenance to OSS Interfaces. Qwest sends associated notifications to all CLECs. Planned Outage Notifications must include:

- Identification of the subject OSS Interface
- Description of the scheduled OSS Interface maintenance activity
- Impact to the CLECs (e.g., geographic area, products affected, system implications, and business implications)
- Scheduled date and scheduled start and stop times
- Work around, if applicable
- Qwest contact for more information on the scheduled OSS Interface maintenance activity

Planned Outage Notifications will be sent to CLECs and appropriate Qwest personnel no later than two (2) calendar days after the scheduling of the OSS Interface maintenance activity.

12.2 Newly Deployed OSS Interface Release

Following the Release Production Date of an OSS Interface change, Qwest will use production support procedures for maintenance of software as outlined below. Problems encountered by the user will be reported, if at all, to the IT Wholesale Systems Help Desk (IT Help Desk). Qwest will monitor, track, and address troubles reported by CLECs or identified by Qwest. Problems reported will be known as IT Trouble Tickets.

A week after the deployment of an IMA Release into production, Qwest will host a conference call with the CLECs to review any identified problems and answer any questions pertaining to the newly deployed software. Qwest will follow this CMP for documenting the meeting as described in Section 3.2. Issues will be addressed with specific CLECs and results/status will be reviewed at the next Monthly CMP Systems Meeting.

12.3 Request for a Production Support Change

The IT Help Desk supports CLECs who have questions regarding connectivity, outputs, and system outages. The IT Help Desk serves as the first point of contact for reporting trouble. If the IT Help Desk is unable to assist the CLEC, it will refer information to the proper Subject Matter Expert, also known as Tier 2 or Tier 3 support, who may call the CLEC directly. Often, however, an IT Help Desk representative will contact the CLEC to provide information or to confirm resolution of the trouble ticket.

Qwest will assign each CLEC generated and Qwest generated IT Trouble ticket a Severity Level 1 to 4, as defined in Section 12.5. Severity 1 and Severity 2 IT trouble tickets will be

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implemented immediately by means of an emergency Release of process, software or documentation (known as a Patch). If Qwest and CLEC deem implementation is not timely, and a work around exists or can be developed, Qwest will implement the work around in the interim. Severity 3 and Severity 4 IT trouble tickets may be implemented when appropriate taking into consideration upcoming Patches, Major Releases and Point Releases and any synergies that exist with work being done in the upcoming Patches, Major Releases and Point Releases.

Qwest will attempt to make a software patch when the system is not working as defined in the technical specifications and/or the GUI systems documentation (excluding PCAT documentation), and issue an event notification clearly defining the change.

If Qwest determines that a software patch is not feasible, and/or Qwest or any CLEC identifies a Patch Release of software or related systems documentation changes that may impact CLEC production coding, Qwest will issue an event notification, initiate a Technical Escalation, and request a joint meeting between Qwest and the CLECs in order to discuss the particular Patch Release. Qwest will notify CLECs of the joint meeting in which Qwest will review the Patch Release, the proposed solution, and the variables which affect the resolution. In all instances, these joint meetings are exempt from the five (5) business day advance notification requirement described in Section 3.0.

At this joint meeting, Qwest and the impacted CLECs will discuss how the pending Patch Release will affect their code. Qwest and the impacted CLECs will discuss any potential resolution options and implementation timeframes. In the event that agreement cannot be reached between Qwest and the impacted CLECs regarding the type of Patch Release to be implemented, the parties will attempt to negotiate an appropriate workaround.

The first time a trouble is reported by Qwest or CLEC, the Qwest IT Help Desk will assign an IT Trouble Ticket tracking number, which will be communicated to the CLEC at the time the CLEC reports the trouble. The affected CLEC(s) and Qwest will attempt to reach agreement on resolution of the problem and closing of the IT Trouble Ticket. If no agreement is reached, any party may use the Technical Escalation Process, http://www.qwest.com/wholesale/systems/productionsupport.html. When the IT Trouble Ticket has been closed, Qwest will notify CLECs with one of the following disposition codes:

- No Trouble Found – to be used when Qwest investigation indicates that no trouble exists in Qwest systems.
- Trouble to be Resolved in Patch – to be used when the IT Trouble Ticket will be resolved in a Patch. Qwest will provide a date for implementation of the Patch. This is typically applied to Severity 1 and Severity 2 troubles, although Severity 3 and Severity 4 troubles may be resolved in a Patch where synergies exist.
- CLEC Should Submit CMP CR – to be used when Qwest's investigation indicates that the System is working pursuant to the Technical Specifications (unless the Technical

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Specifications are incorrect), and that the IT Trouble Ticket is requesting a systems change that should be submitted as a CMP CR.

- Resolved – to be used when the IT Trouble Ticket investigation has resolved the trouble.

If Qwest has identified the source of a problem for a Severity 3 or Severity 4 IT Trouble Ticket but has not scheduled the problem resolution, Qwest may place the trouble ticket into a "Date TBD" status, but will not close the trouble ticket. Once a trouble ticket is placed in "Date TBD" status, Qwest will no longer issue status notifications for the trouble ticket. Instead, Qwest will track "Date TBD" trouble tickets and report status of these trouble tickets on the CMP Web site and in the Monthly CMP Systems Meeting. When a "Date TBD" trouble ticket is scheduled to be resolved in a Patch, Release or otherwise, Qwest will issue a notification announcing that the trouble ticket will be resolved and remove the trouble ticket from the list reported on the CMP Web site and in the Monthly CMP Systems Meeting.

For "Date TBD" trouble tickets, either Qwest or a CLEC may originate a Change Request to correct the problem. (See Section 5.0 for CR Origination.) If the initiating party knows that the CR relates to a trouble ticket, it will identify the trouble ticket number on the CR.

Instances where Qwest or CLECs misinterpret Technical Specifications and/or business rules must be addressed on a case-by-case basis. All parties will take all reasonable steps to ensure that any disagreements regarding the interpretation of a new or modified OSS Interface are identified and resolved during the change management review of the Change Request.

12.4 Reporting Trouble to IT

Qwest will open a trouble ticket at the time the trouble is first reported by CLEC or detected by Qwest. The ITWSHD Tier 1 will communicate the ticket number to the CLEC at the time the trouble is reported. Once a trouble ticket is opened at the ITWSHD, a CLEC or Qwest may request that the Event Notification process begin on the ticket as described in section 12.6.

If a ticket has been opened, and subsequent to the ticket creation, CLECs call in on the same problem, and the ITWSHD recognizes that it is the same problem, a new ticket is not created. The ITWSHD documents each subsequent call in the primary IT trouble ticket.

If one or more CLECs call in on the same problem, but it is not recognized as the same problem, one or more tickets may be created. When the problem is recognized as the same, one of the tickets becomes the primary ticket, and the other tickets are linked to the primary ticket. The ITWSHD provides the primary ticket number to other reporting CLECs. A CLEC can request its ticket be linked to an already existing open IT ticket belonging to another CLEC. When the problem is closed, the primary and all related tickets will be closed.

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12.4.1 Systems Problem Requiring a Workaround

If a CLEC is experiencing problems with Qwest because of a system "issue", the CLEC will report the trouble to the ITWSHD. The ITWSHD will create a trouble ticket as outlined above.

The ITWSHD Tier 1 will refer the ticket to the IT Tier 2 or 3 resolution process. If, during the resolution process, the Tier 2 or 3 resolution team determines that a workaround is required ITWSHD (with IT Tier 2 or 3 on the line, as appropriate) will contact the CLEC to develop an understanding of how the problem is impacting the CLEC. If requested and available, the CLEC will provide information regarding details of the problem, e.g., reject notices, LSRs, TNs or circuit numbers. Upon understanding the problem, the IT Tier 1 agent, with the CLEC on the line, will contact the ISC Help Desk and open a Call Center Database Ticket. The IT Tier 2 or 3 resolution team along with the WSD Tier 2 team, and other appropriate SMEs, (Resolution Team) will develop a proposed work around. The WSD Tier 2 team will work collaboratively with the CLEC(s) reporting the issue to finalize the work around. The ITWSHD will provide the CLEC and the WSD Tier 2 team with the IT Trouble Ticket number in order to cross-reference it with the Call Center Database Ticket. The ITWSHD will also record the Call Center Database Ticket number on the IT Trouble Ticket. The CLEC will provide both teams with primary contact information. If the CLEC and Qwest cannot agree upon the work around solution, the CLEC can use either the Technical Escalation process or escalate to the WSD Tiers, as appropriate. Qwest will use its best efforts to retain the CLEC's requested due dates, regardless of whether a work around is required.

12.5 Severity Levels

Severity level is a means of assessing and documenting the impact of the loss of functionality to CLEC(s) and impact to the CLEC's business. The severity level gives restoration or repair priority to problems causing the greatest impact to CLEC(s) or its business.

Guidelines for determining severity levels are listed below. Severity level may be determined by one or more of the listed bullet items under each Severity Level (the list is not exhaustive). Examples of some trouble ticket situations follow. Please keep in mind these are guidelines, and each situation is unique. The IT Help Desk representative, based on discussion with the CLEC, will make the determination of the severity level and will communicate the severity level to the CLEC at the time the CLEC reports the trouble. If the CLEC disagrees with the severity level assigned by the IT Help Desk personnel, either on the initial call or at any time while the ticket is open, a CLEC may request the ITWSHD to change the severity level, identifying the reason for the change in severity. If Qwest questions the validity of the change in severity, Qwest will contact the CLEC Severity Escalation Contact who raised the severity for clarification.

Severity 1: Critical Impact

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- Critical.
- High visibility.
- A large number of orders or CLECs are affected.
- A single CLEC cannot submit its business transactions.
- Affects online commitment.
- Production or cycle stopped – priority batch commitment missed.
- Major impact on revenue.
- Major component not available for use.
- Many and/or major files lost.
- Major loss of functionality.
- Problem can not be bypassed.
- No viable or productive work around available.

Examples:

- Major network backbone outage without redundancy.
- Environmental problems causing multiple system failures.
- Large number of service or other work order commitments missed.
- A Software Defect in an edit which prevents any orders from being submitted.

Severity 2: Serious Impact

- Serious
- Moderate visibility
- Moderate to large number of CLECs, or orders affected
- Potentially affects online commitment
- Serious slow response times
- Serious loss of functionality
- Potentially affects production – potential miss of priority batch commitment
- Moderate impact on revenue
- Limited use of product or component
- Component continues to fail. Intermittently down for short periods, but repetitive
- Few or small files lost
- Problems may have a possible bypass; the bypass must be acceptable to CLECs
- Major access down, but a partial backup exists

Examples:

- A single company, large number of orders impacted
- Frequent intermittent logoffs
- Service and/or other work order commitments delayed or missed

Severity 3: Moderate Impact

- Low to medium visibility

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- Low CLEC, or low order impact
- Low impact on revenue
- Limited use of product or component
- Single CLEC device affected
- Minimal loss of functionality
- Problem may be bypassed; redundancy in place. Bypass must be acceptable to CLECs
- Automated workaround in place and known. Workaround must be acceptable to CLECs

Example:

- Hardware errors, no impact yet

Severity 4: Minimal Impact

- Low or no visibility
- No direct impact on CLEC
- Few functions impaired
- Problem can be bypassed; bypass must be acceptable to CLECs
- System resource low; no impact yet
- Preventative maintenance request

Examples:

- Misleading, unclear system messages causing confusion for users
- Device or software regularly has to be reset, but continues to work

12.6 Status Notification for IT Trouble Tickets

There are two types of status notifications for IT Trouble Tickets:

- Target Notifications: for tickets that relate to only one reporting CLEC – Target Notifications may be communicated by direct phone calls
- Event Notifications: for tickets that relate to more than one CLEC or for reported troubles that Qwest believes will impact more than on e CLEC
- Event Notifications are sent by Qwest to all CLECs who subscribe to the IT Help Desk. Event Notifications will include ticket status (e.g., open, no change, resolved) and as much of the following information as is known to Qwest at the time the notification is sent:
  - Description of the problem
  - Impact to the CLECs (e.g., geographic area, products affected, business implications, other pertinent information available)
  - Estimated resolution date and time if known
  - Resolution if known
  - Severity level
  - Trouble ticket number(s), date and time
  - Work around if defined, including the Call Center Database Reference Ticket number

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- Qwest contact for more information on the problem
- System affected
- Escalation information as available

Both types of notifications will be sent to the CLECs and appropriate Qwest personnel within the time frame set forth in the table below and will include all related system trouble ticket number(s).

12.7 Notification Intervals

Qwest will distribute notifications during the IT Help Desk normal hours of operation (Monday-Friday 6:00 a.m. - 8:00 p.m. (MT) and Saturday 7:00 a.m. - 3:00 p.m. MT). Qwest will continue to work severity 1 problems outside of Help Desk hours of operation, and will communicate with the CLEC(s) as needed. A severity 2 problem may be worked outside the IT Help Desk normal hours of operation on a case-by-case basis.

Notification Intervals are based on the severity level of the ticket, the ticket's Disposition code (e.g., Initial, Update, Closure, etc.), and status changes.

The chart below indicates the response intervals a CLEC can expect to receive after reporting a trouble ticket to the IT Help Desk. Beginning with the issue's immediate acceptance as multi-CLEC impacting issue, Qwest will create and distribute the Initial notification.

Severity Level of Ticket	Response Interval for Status Changes	Response Interval for No Status Changes		Notification Interval upon Resolution
1	Within 1 hour	1 hour		Within 1 hour
2	Within 1 hour	1 hour		Within 1 hour
3	Within 4 hours	Workaround Provided	None. Only status ***changes*** will be communicated when a workaround is provided.	Within 4 hours
		No Workaround Provided	4 hours	
4	Within 24 hours	Workaround Provided	None. Only status ***changes*** will be communicated when a workaround is provided.	Within 4 hours
		No Workaround Provided	Every 48 hours.	

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"Notification Interval for Any Change in Status" means that a notification will be sent out within the time specified from the time a change in status occurs. Qwest will provide updates to those notifications that do not have a workaround until a workaround is established to inform the CLEC that a the issue is still under investigation. Qwest will not issue Updates when Qwest has provided a Workaround, but no change in status has occurred. "Notification Interval upon Resolution" means that a notification will be sent out within the time specified from the resolution of the problem.

12.8 Process Production Support

Process troubles encountered by CLECs will be reported, if at all, to the ISC Help Desk (Tier 0). In some cases the Qwest Service Manager (Tier 3) may report the CLEC trouble to the ISC Help Desk. Tier 0 will open a Call Center Database Ticket for all reported troubles.

12.8.1 Reporting Trouble to the ISC

The ISC Help Desk (Tier 0) serves as the first point of contact for reporting troubles that appear process related. Qwest has seven Tiers in Wholesale Service Delivery (WSD) for process Production Support. References to escalation of process Production Support issues means escalation to one of these seven tiers. Contact information is available through the Service Manager (Tier 3). The Tiers in WSD are as follows:

- Tier 0 – ISC Help Desk
- Tier 1 – Customer Service Inquiry and Education (CSIE) Service Delivery Coordinator (SDC)
- Tier 2 – CSIE Center Coaches and Team Leaders, Duty Pager, Process Specialist
- Tier 3 - Service Manager
- Tier 4 – Senior Service Manager
- Tier 5 – Service Center Director
- Tier 6 – Service Center Senior Director

A CLEC may, at any point, escalate to any of the seven Tiers.

If a CLEC is experiencing troubles with Qwest because of a process issue, the CLEC will report the trouble to Tier 0. Tier 0 will attempt to resolve the trouble including determining whether the trouble is a process or systems issue. To facilitate this determination, upon request, the CLEC will provide, by facsimile or e-mail, documentation regarding details of the trouble, e.g., reject notices, LSRs, TNs or circuit numbers if available. Tier 0 will create a Call Center Database Ticket with a two (2) hour response commitment ("out in 2 hour" status), and provide the ticket number to the CLEC. If Tier 0 determines that the trouble is a systems issue, they will follow the process described in Section 12.8.4. With respect to whether the trouble is a systems or

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process issue, a CLEC may escalate to Tier 1 before the Tier 0 follows the process outlined in Section 12.8.4.

If Tier 0 does not determine that the trouble is a systems issue or is not able to resolve the trouble, Tier 0 will offer the CLEC the option of either a warm transfer to Tier 1 (with the CLEC on the line), or have Qwest place the Call Center Database Ticket into the Tier 1 work queue. Tier 1 will then analyze the ticket and attempt to resolve the trouble or determine if the trouble is a systems or a process issue. If the trouble is a process issue, Tier 1 will notify the Tier 2 process specialist. Tier 2 process specialist will notify all call handling centers (Tier 0, Tier 1 and Tier 2 at each center) of the reported trouble and current status. If Tier 1 determines that the trouble is a systems issue, they will follow the process described in Section 12.8.4.

The reporting CLEC(s) and Qwest will attempt to reach agreement on resolution of the trouble. This resolution includes identification of processes to handle affected orders reported by the CLEC and orders affected but not reported. If Qwest and the CLEC determine that the trouble can be resolved in a timely manner, Qwest will status the CLEC every 2 hours by telephone, unless otherwise agreed, until the trouble is resolved to the CLEC's satisfaction. If, at any point, the parties conclude that they are unable to resolve the trouble in a timely manner, the CLEC and Qwest will proceed to develop a work around, as described below. At any point, the reporting CLEC may elect to escalate the issue to a higher Tier.

Except in a work around situation, see Section 12.8.3, once the trouble is resolved and all affected orders have been identified and processed, Qwest will seek CLEC agreement to close the ticket(s). If agreement is not reached, CLEC may escalate through the remaining Tiers.

After ticket closure, if the CLEC indicates that the issue is not resolved, the CLEC contacts Tier 2 and refers to the applicable ticket number. Tier 2 reviews the closed ticket, opens a new ticket, and cross-references the closed ticket.

Qwest will use its best efforts to retain the CLEC's requested due dates.

12.8.2 Multiple Tickets

If one or more CLECs call in multiple tickets, but neither the CLECs nor Qwest recognize that the tickets stem from the same trouble, one or more tickets may be created.

Qwest will attempt to determine if multiple tickets are the result of the same process trouble. Also, after reporting a trouble to Tier 0, a CLEC may determine that the same problem exists for multiple orders and report the association to Tier 0. In either case, when the association is identified, Tier 0 will designate one ticket per CLEC as a primary ticket, cross-reference that CLEC's other tickets to its primary ticket and provide the primary ticket number to that CLEC. Tier 2 process specialist will advise the call handling centers (Tier 0, Tier 1 and Tier 2 at each center) and Service Managers (Tier 3) of the issue.

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Once a primary ticket is designated for a CLEC, the CLEC need not open additional trouble tickets for the same type of trouble. Any additional trouble of the same type encountered by the CLEC may be reported directly to Tier 2 with reference to the primary ticket number.

Qwest will also analyze the issue to determine if other CLECs are impacted by the trouble. If other CLECs are impacted by the trouble, within 3 business hours after this determination, the Tier 2 process specialist will advise the call handling centers (Tier 0, Tier 1 and Tier 2 at each center) and the Service Managers (Tier 3) of the issue and the seven digit ticket number for the initial trouble ticket (Reference Ticket). At the same time, Qwest will also communicate information about the trouble, including the Reference Ticket number, to the impacted CLECs through the Event Notification process, as described in Section 12.6. If other CLECs experience a trouble that appears related to the Reference Ticket, the CLECs will open a trouble ticket with Tier 0 and provide the Reference Ticket number to assist in resolving the trouble.

12.8.3 Work Arounds

The reporting CLEC(s) and Qwest will attempt to reach agreement on whether a workaround is required and, if so, the nature of the work around. For example, a work around will provide a means to process affected orders reported by the CLEC, orders affected but not reported, and any new orders that will be impacted by the trouble. If no agreement is reached, the CLEC may escalate through the remaining Tiers.

If a work around is developed, Tier 1 will advise the CLEC(s) and the Tier 2 process specialist will advise the call handling centers (Tier 0, Tier 1 and Tier 2 at each center) and the Service Manager (Tier 3) of the work around and the Reference Ticket number. Tier 1 will communicate with the CLEC(s) during this affected order processing period in the manner and according to the notification timelines established in Section 12.8.1. After the work around has been implemented, Tier 1 will contact the CLECs who have open tickets to notify them that the work around has been implemented and seek concurrence with the CLECs that the Call Center Database tickets can be closed. The closed Reference Ticket will describe the work around process. The work around will remain in place until the trouble is resolved and all affected orders have been identified and processed.

Once the work around has been implemented, the associated tickets are closed. After ticket closure, CLEC may continue to use the work around. If issues arise, CLEC may contact Tier 2 directly, identifying the Reference Ticket number. If a different CLEC experiences a trouble that appears to require the same work around, that CLEC will open a Call Center Data base ticket with Tier 0 and provide the Reference Ticket number for the work around.

12.8.4 Transfer Issue from WSD to ITWSHD

CLECs may report issues to the ISC Help Desk (Tier 0) that are later determined to be systems issues. Once the ISC Help Desk or higher WSD Tier determines that the issue is the result of a

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system error, that Tier will contact the CLEC and ask if the CLEC would like that Tier to contact the ITWSHD to report the system trouble. If the CLEC so requests, the Tier agent will contact the ITWSHD, report the trouble and communicate the Call Center Database Ticket to the ITWSHD agent with the CLEC on the line. The ITWSHD agent will provide the CLEC and the WSD agent with the IT Trouble Ticket number. The IT Trouble Ticket will be processed in accordance with the Systems Production Support provisions of Section 12.0.

12.9 Communications

When Call Center Database and IT Trouble Tickets are open regarding the same trouble, the IT and WSD organizations will communicate as follows. The WSD Tier 2 Process Specialists will be informed of the status of IT Trouble Tickets through ITWSHD system Event Notifications. Additionally, WSD Tier 2 has direct contact with the ITWSHD as a participant on the Resolution Team, as necessary. As the circumstances warrant, the WSD Tier 2 process specialist will advise the call handling centers (Tier 0, Tier 1 and Tier 2 at each center) and the Service Manager (Tier 3) of the information pertinent to ongoing resolution of the trouble.

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13.0 TRAINING

Qwest will incorporate all substantive changes to existing Graphical User Interfaces (GUI), including the introduction of new GUI, into CLEC training programs. Qwest will execute CLEC training for pre-order, ordering, billing, and maintenance and repair GUIs.

13.1 Introduction of a New GUI

Qwest will include a CLEC training schedule with the Initial Release Notification for the introduction of a new GUI issued in accordance with the interval specified in Section 7.0. Qwest will make available CLEC training beginning no less than twenty-one (21) calendar days prior to the Release Production Date. Web based training will remain available for the life of the Release.

13.2 Changes to an Existing GUI

Qwest will include a CLEC training schedule with the Draft Release Notes issued for a change to an existing GUI in accordance with the interval specified in Section 8.0. Qwest will make available CLEC training beginning no less than twenty-one (21) calendar days prior to the Release Production date. Web based training will remain available for the life of the Release.

CEMR training will not be available before the Release Production Date but will be conducted for ninety (90) days in the live environment after the Release Production date.

13.3 Product and Process Introductions and Changes

Qwest may offer CLEC training for product and process introductions and changes based on the complexity of the introduction or change. This training is offered in many forms, but is most commonly offered in the following delivery methods: Web-based, instructor-led, job aids, or conference calls.

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14.0 ESCALATION PROCESS

14.1 Guidelines

- The Escalation Process will include items that are defined as within the CMP scope.
- The decision to escalate is left to the discretion of the CLEC, based on the severity of the missed or unaccepted response/resolution.
- Escalations may also involve issues related to CMP itself, including the administration of this CMP.
- The expectation is that escalation should occur only after Change Management procedures have occurred per this CMP.

14.2 Cycle

Item must be formally escalated through the CMP Web site, http://www.qwest.com/wholesale/cmp/escalations_dispute.html. Alternatively, the issue may be escalated by sending an e-mail to the Qwest CMP escalation e-mail address cmpesc@qwest.com.

- Subject line of the escalation e-mail must include:
  - CLEC Company name
  - "ESCALATION"
  - Change Request (CR) number and status, if applicable
- Content of e-mail must enclose appropriate supporting documentation, if applicable, and to the extent that the supporting documentation does not include the following information, the following must be provided:
  - Description of item being escalated
  - History of item
  - Reason for Escalation
  - Business need and impact
  - Desired CLEC resolution
  - CLEC contact information including Name, Title, Phone Number, and e-mail address
  - CLEC may request that impacted activities be stopped, continued or an interim solution be established.
- Qwest will acknowledge receipt of the complete escalation e-mail with an acknowledgement of the e-mail no later than the close of business of the following business day. If the escalation e-mail does not contain the preceding specified information Qwest will notify the CLEC by the close of business on the following business day, identifying and requesting information that was not originally included.
- When the escalation e-mail is complete, the acknowledgement e-mail will include:
  - Date and time of escalation receipt
  - Date and time of acknowledgement e-mail
  - Name, phone number and e-mail address of the Qwest Director, or above, assigned to the escalation.
- Qwest will post escalated issue and any associated responses on the CMP Web site within one (1) business day of receipt of the complete escalation or response.

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- Qwest will give notification that an escalation has been requested via the Industry Mail Out process
- Any other CLEC wishing to participate in the escalation may do so by selecting the participate button adjacent to the escalation on the CMP Escalation Web site, http://www.qwest.com/wholesale/cmp/escalations.html, within one (1) business day of the mail out. Alternately, a CLEC may participate by sending an e-mail to cmpesc@qwest.com within one business day of the Qwest notification. The subject line of the e-mail must include the title of the escalated issue followed by "ESCALATION PARTICIPATION."
- Qwest will respond with a binding position e-mail including supporting rationale as soon as practicable, but no later than:
  - For escalated CRs, seven (7) calendar days after sending the acknowledgment e-mail,.
  - For all other escalations, fourteen (14) calendar days after sending the acknowledgment e-mail.
- The escalating CLEC will respond to Qwest within seven (7) calendar days with a binding position e-mail.
- When the escalation is closed, the resolution will be subject to this CMP

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15.0 DISPUTE RESOLUTION PROCESS

CLECs and Qwest will work together in good faith to resolve any issue brought before this CMP. In the event that an impasse issue develops, a party may pursue the dispute resolution processes set forth below:

- Item must be formally identified through the CMP Web site, http://www.qwest.com/wholesale/cmp/escalations_dispute.html. Alternately, a party may send an e-mail to the Qwest CMP Dispute Resolution e-mail address, cmpdisp@qwest.com. Subject line of the e-mail must include:
  - CLEC Company name
  - "Dispute Resolution"
  - Change Request (CR) number and status, if applicable
- Content of e-mail must include appropriate supporting documentation, if applicable, and to the extent that the supporting documentation does not include the following information, the following:
  - Description of item
  - History of item
  - Reason for Escalation
  - Business need and impact
  - Desired CLEC resolution
  - CLEC contact information including Name, Title, Phone Number, and e-mail address
  - Qwest will acknowledge receipt of the complete Dispute Resolution e-mail within one (1) business day
- Qwest or any CLEC may suggest that the issue be resolved through an Alternative Dispute Resolution (ADR) process, such as arbitration or mediation using the American Arbitration Association (AAA) or other rules. If the parties agree to use an ADR process and agree upon the process and rules to be used, including whether the results of the ADR process are binding, the dispute will be resolved through the agreed-upon ADR process.
- Without the necessity for a prior ADR Process, Qwest or any CLEC may submit the issue, following the commission's established procedures, with the appropriate regulatory agency requesting resolution of the dispute. This provision is not intended to change the scope of any regulatory agency's authority with regard to Qwest or the CLECs.

This process does not limit any party's right to seek remedies in a regulatory or legal arena at any time.

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16.0 EXCEPTION PROCESS

Qwest and CLECs recognize the need to allow occasional exceptions to this CMP described herein. Extenuating circumstances affecting Qwest or the CLECs may warrant deviation from this CMP. An exception request will be addressed on a case-by-case basis where Qwest and CLECs may decide to handle the exception request outside of the established CMP. An exception request must be presented to the CMP community for acceptance in accordance with this section to determine if the request shall be treated as an exception.

16.1 Exception Initiation and Acknowledgement

If Qwest or a CLEC wishes that any request within the scope of CMP be handled on an exception basis, the party who makes such a request will issue an exception request ("Exception Request"). Exception Requests will be submitted in one of two ways:

- If the request pertains to a single, previously submitted, open CR, the Exception Requestor must follow the process described in Section 16.1.1.
- If the Exception Request is not currently addressed in a single, previously submitted, open CR or if the request involves two or more previously submitted, open CRs, the Exception Requestor must complete a CR form and e-mail it to the CMP Manager, cmpcr@qwest.com. The Exception Requestor must complete the following sections of the CR form: date submitted, company, originator, proprietary (if applicable), optional available dates/times for meetings, area of request, description of exception requested. The description of the exception must contain the information listed in Section 16.1.1.

16.1.1 Requestor Submits an Exception Request

If the Exception Request pertains to a previously submitted CR, the Exception Requestor must send an e-mail to the CMP Manager, cmpcr@qwest.com, with "EXCEPTION" in the subject line. The text of the request must contain the following information:

- Change Request number(s) of an existing Change Request(s) or a completed Change Request form (See Section 5.0)
- Description of the request with good cause for seeking an exception
- A clear statement outlining the course of action the Exception Requestor wishes parties to follow and the desired outcome, if the Exception Request is granted (e.g., timeframe or targeted release)
- Supporting documentation
- Primary contact information
- Whether the Requestor wishes to have the request considered at the next Monthly CMP Meeting, or requests an Exception Call/Meeting pursuant to Section 16.2 prior to the next Monthly CMP Meeting
- If a CLEC requests an Exception Call/Meeting, the CLEC should indicate whether it desires a pre-meeting with Qwest, including the CLEC's desire to have certain Qwest subject matter experts attend the pre-meeting and/or Exception Call/Meeting.

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16.1.2 Tracking of an Exception Request

Exception Requests will be identified by adding the suffix "EX" to the CR number. If an Exception Request references existing CRs, and the Exception Request is granted, the CR numbers of the referenced CRs will then be modified to include the "EX" suffix.

Within one (1) business day after receipt of an Exception Request, Qwest's CMP Manager will acknowledge receipt of the Exception Request by e-mail to the Requestor. The CMP Manager will include in the acknowledgement an indication of whether an Exception Call/Meeting will be scheduled. If an Exception Call/Meeting is not requested, the Exception change request will be presented to the CMP community as described in Section 16.3 below. The acknowledgement will also include the CR or tracking number.

16.2 Exception Notification

Within three (3) business days after receipt of the request, if an Exception Call/Meeting is requested, the CMP Manager will issue a notification to the CMP community for an Exception Call/Meeting (the "Exception Notification"). The Exception Call/Meeting shall be held on a date agreed to by the Requestor, provided that it shall not be held less than seven (7) business days after issuance of the Exception Notification.

The subject line of the Exception Notification must include:

- "EXCEPTION NOTIFICATION"

The content of the Exception Notification will include:

- Requestor
- Logistics for Exception Call/Meeting
- Agenda
- Change Request number on which the exception is sought
- Description of the request with good cause for seeking an exception
- Desired outcome (e.g., timeframe or targeted release)
- Supporting documentation
- Primary contact information
- A clear statement that a decision is required to accept, or decline this request as an Exception during this Exception Call/Meeting.
- Logistics for a pre-meeting, in accordance with Section 16.2.1
- An initial assessment from Qwest regarding the impact if the Exception Request is granted, if available.

16.2.1 Pre-Meeting

The pre-meeting shall be held on a date agreed to by the Requestor, provided that it shall not be held less than two (2) business days after issuance of the Exception Notification. Qwest shall conduct the pre-meeting with the Exception Requestor, any CLECs that wish to participate, Qwest SMEs, and specially requested Qwest personnel, or their equivalents. In all instances, the pre-

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meeting is exempt from the five (5) business day advance notification requirement described in Section 3.0. The purpose of the pre-meeting is to enable Qwest and CLECs to discuss options for the vote, determine the additional SMEs to invite to the Exception Call/Meeting, and develop a clear statement delineating what "Yes" and "No" votes will mean.

No later than three (3) business days following the pre-meeting, Qwest will distribute an Exception Voting Notification. The subject line of the notification will contain:

- "PRE-MEETING RESULTS – VOTING INSTRUCTIONS"

The body of the notification will contain:

- A clear statement outlining the course of action parties will follow if the Exception Request is granted
- A description of any modifications to the Exception Request made during the pre-meeting
- A clear statement delineating what "Yes" and "No" votes will mean
- Logistics for the Exception Meeting or the Monthly CMP Meeting, at which the vote will be held
- Logistics for additional pre-meetings, if applicable

16.2.2 Conduct Exception Call/Meeting

Qwest will conduct the Exception call/meeting to allow the Requestor to clarify the Exception Request. The Exception Requestor shall present the request and provide good cause as to why such a request should be treated as an exception. Qwest and CLECs present will be given the opportunity to comment on the request. Discussion may also include substantive issues and potential solutions, and schedules for subsequent activities (e.g., meeting, deliverables, milestones, and implementation dates). After the discussion, Qwest will conduct a vote as described in Section 16.4.

Qwest will write, distribute and post minutes as part of the Exception Request Disposition Notification no later than five (5) business days after the Exception Call/Meeting. The minutes will include the disposition and schedule of the implementation of the Exception Request.

16.3 Notification of Exception Request Discussion and Vote at Upcoming Monthly CMP Meeting

If an Exception Requestor desires that the vote be taken at the next Monthly CMP Meeting, the Exception Request must be submitted no later than thirteen (13) business days prior to that Monthly CMP Meeting. If an Exception Call/Meeting is not requested by the Exception Requestor, within three (3) business days after receipt of the request Qwest will notify the CLECs by e-mail that an Exception Request has been received by the CMP Manager.

The subject line of the notification must include:

- "EXCEPTION NOTIFICATION"

The notification content shall include:

- Requestor

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- Change Request number on which the exception is sought
- Description of the request with good cause for seeking an exception
- Desired outcome (e.g., timeframe or targeted release)
- Supporting documentation
- A clear statement that this request will be discussed and a decision is required to accept, or decline this request as an Exception, at the upcoming Monthly CMP Meeting
- Logistics for a pre-meeting, in accordance with Section 16.2.1
- An initial assessment from Qwest regarding the impact if the Exception Request is granted, if available

16.3.1 Discussion and Vote Taken at the Monthly CMP Meeting

If an Exception Call/Meeting is not requested, Qwest will note on the agenda of the next Monthly CMP Meeting that an Exception Request has been submitted, and that a decision is required to accept or decline this request as an Exception. Qwest will include the Exception Request and supporting documentation as part of the Monthly CMP Meeting distribution package.

The Exception Requestor shall present the request and provide good cause as to why such a request should be treated as an exception. Qwest and CLECs present will be given the opportunity to comment on the request. Discussion may also include substantive issues and potential solutions, and schedules for subsequent activities (e.g., meeting, deliverables, milestones, and implementation dates). After the discussion, Qwest will conduct a vote as described in Section 16.4.

16.4 Vote on Exception Request

A vote on whether an Exception Request will be handled on an exception basis will take place at the Exception Call/Meeting, if one is held (See Section 16.2.2). If an Exception Call/Meeting is not held, the vote will be taken at the Monthly CMP Meeting (See Section 16.3.1). The standards for determining whether a request will be handled on an exception basis are as follows:

- If the Exception Request is for a general change to the established CMP timelines for Product/Process changes, a two-thirds majority vote will be required unless Qwest or a CLEC demonstrates, with substantiating information, that one of the criteria for denial set forth in Section 5.3 is applicable. If one of the criteria for denial is applicable, the request will not be treated as an exception.
- If the Exception Request is for a Systems change or seeks to alter any part of this CMP (other than a particular instance of a Product/Process timeline change), a unanimous vote will be required.

Voting will be conducted pursuant to Section 17.0.

Any party that disagrees with results of a vote may initiate dispute resolution pursuant to the CMP Dispute Resolution provisions.

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16.5 Exception Request Disposition Notification

Qwest will issue a disposition notification, including meeting minutes, within five (5) business days after the close of the Exception Call/Meeting, or the Monthly CMP Meeting, at which the vote was taken. The disposition notification will be posted on the Web site.

16.6 Processing of the Exception Disposition

If the outcome of the vote is to grant the Exception Request, then Qwest may proceed with the agreed to disposition. If the outcome of the vote is not to treat the proposed change as an Exception, the originator may withdraw the Exception designation and continue to pursue its change under the established CMP. The originator of the change may also withdraw the change and discontinue pursuit of the requested change.

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17.0 VOTING

When a vote is called, Qwest and CLECs will follow the procedures described below, unless otherwise specified in this CMP.

The Qwest CMP Manager will schedule and hold a discussion call/meeting (if not pursuant to a Monthly CMP Meeting), issue an agenda with any supporting material, and conduct the vote as described below on the open issue. The agenda will be distributed and posted on the web site in advance of the call/meeting as also described below.

The results of the vote will be published, using the voting tally form (refer to Appendix F).

A total of 51% or more of the votes in favor of (or against) a proposal shall constitute a Majority in this CMP.

The standard for the determination of all issues put to a vote under this CMP is the decision of the Majority, except where a different voting standard is expressly stated in this CMP for a particular issue.

17.1 Voter

A Voter is any of the POCs designated under Section 2.2. Additionally, any CLEC POC may designate another member of its company or a third party as an interim POC to vote, for a specific vote, in the absence of the primary, secondary, and tertiary POCs. A third party vote must be accompanied by one of the following two valid forms of documentation (e-mail authorization or Letter of Authorization (LOA)). The e-mail must be sent to the CMP Manager, cmpcr@qwest.com, no later than two (2) hours before the meeting at which the vote will take place. The interim POC may provide an LOA to Qwest at the meeting, prior to the vote.

If an e-mail or LOA is provided to designate a third party interim POC, it must contain the following information in the subject line of the e-mail:

- "Voting Proxy"

The body of the e-mail or LOA must contain the following information:

- CLEC Name
- Third Party Company Name
- Brief description of the issue on which the vote is being taken
- Date vote call/meeting is scheduled to be held
- Signature of authorizing Carrier (LOA only)

If a meeting is scheduled for a vote but a vote is not taken, e-mailed designations or LOAs will be discarded.

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17.2 Participation in the Vote

Any Carrier that is authorized to provide local services in any one of Qwest's 14-state region may qualify as a Voter.

A Voter may participate in the vote in person, over the phone, or via e-mail ballot, as described in Section 17.4.3.

17.2.1 A Carrier is Entitled To a Single Vote

Each Carrier (Qwest or CLEC) is entitled to a single vote regardless of any affiliates. For example, at the time of this writing, WorldCom has several entities offering local services throughout the Qwest region (e.g., MFS, Brooks Fiber, MCI Metro, etc.). WorldCom would be entitled to one vote for all of these affiliates.

17.3 Notification of Vote

Qwest will notify CLECs by email within one (1) business day after determining when a vote on a specific issue must occur. This notification will in no event be less than five (5) business days before the call. The subject line of notification will be identified as "VOTE REQUIRED/Title of Issue." Within one (1) business day after issuing the notification, the notification and any supporting material will be posted on the web site.

17.3.1 Notification Content

When a notification is issued, the notification will be issued as a CMP notification and will consist of:

- a description of the issue and reason for calling a vote
- date and time of the voting call/meeting
- bridge number for the voting call, or logistics for the meeting
- supporting material, if any
- the deadline date and time for submitting e-mail votes

17.4 Voting Procedures

17.4.1 Quorum

At any CMP call/meeting where a vote is to be taken, a quorum of Carriers, as described in Section 17.2.1, (Qwest and CLEC) must be present. A quorum will be established as follows:

- Qwest and CLECs will determine the average number of Carriers (including Qwest) at the last six days of Monthly CMP Meetings, excluding the highest and lowest attendance numbers (e.g. add the number of Carriers at the remaining four meetings and divide by four) ("Average Number of Carriers").
- If 62.5% or more of the Average Number of Carriers is present, a quorum has been established. For purposes of establishing a quorum, a Carrier not participating in the meeting

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is considered present if it submitted an e-mail vote by the time designated in the notification of vote.

- When calculating the average number of Carriers and establishing quorum, Qwest will round to the nearest whole number; *i.e.,* Qwest will round a number ending in 0.5 and above to the higher whole number, and round a number ending below 0.5 to the lower whole number.

If a quorum is not present at a call/meeting when a vote is scheduled to be taken, the vote shall be postponed until such time as a quorum is established.

In the case of an Exception request, if a quorum is not established at the Exception all/Meeting, the vote shall be postponed for three (3) business days for a second Exception Call/Meeting. At the second Exception Call/Meeting, a vote will be taken regardless of whether a quorum is established. Prior to the second Exception Call/Meeting, Qwest will distribute a notification stating that at this meeting a vote will take place regardless of whether a quorum is established, and that votes will be accepted in accordance with Sections 17.1 and 17.4.1.

17.4.2 Casting Votes

Once a quorum is established, Qwest will ask for all Voters to place their vote by writing their vote and their company name on a piece of paper. The vote will be either a "Yes," "No" or "Abstain." When all companies have completed their votes, Qwest will collect the ballots. Voters attending by telephone will e-mail their vote to cmpcr@qwest.com, in accordance with Section 17.4.3. After collection of ballots Qwest will read aloud all votes received and collected. If a POC on the phone wishes to vote, but does not have access to a computer, Qwest will arrange with that POC a method to receive its vote. Only votes of "Yes" and "No" will count toward calculating a majority or unanimous decision.

17.4.3 E-mail Ballots

CLECs wishing to e-mail their vote to Qwest may do so by sending an e-mail to the Qwest CMP Manager, cmpcr@qwest.com. E-mail votes will only be accepted, and included in the tally of the votes, if received prior to the official close of voting during the voting call/meeting.

The subject line of the e-mail must include the following:

- "CLEC BALLOT"
- CLEC Name
- Representative Name

The body of the e-mail must include the following:

- CLEC Name
- Representative Name
- Brief description of the issue on which the vote is being taken
- Date vote call/meeting is scheduled to be held
- CLEC vote

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If a meeting is scheduled for a vote but a vote is not taken, e-mailed votes will be discarded. In addition, CLECs who submitted votes by e-mail will be notified that no vote was taken, their votes were discarded, and that the vote may be taken again at a later date.

In the event a CLEC is present to vote, after submitting an e-mail ballot, such CLEC may cast its vote at the call/meeting regardless of the e-mail ballot.

17.4.4 Voting Tally Form

The Voting Tally Form serves as a collective record of the individual company vote. The results of the tally will be included in the meeting minutes as an attached document.

The form will include the following information:

- *Name of Call/Meeting*: The name of the call/meeting
- *Date of Vote*: The date of occurrence
- *Subject*: The topic or issue that is causing the vote
- *Voting Carrier*: The Carrier's company name
- *Voting Participant*: Write the name of the Voter that participates in a 'vote' and how the vote was cast: in person, by phone or by email
- *Yes*: Place an 'X' in box if agreed with proposed plan
- *No*: Place an "X" in box if party disagrees with proposed plan
- *Abstain*: Any participant may abstain to place a vote by placing an "X" in the box
- *Result*: Qwest shall record the results of the vote in this box

Qwest will announce the results of the vote, by an e-mail notification, no later than five (5) business days following the call/meeting. The result will be included in meeting minutes and posted on the web site.

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18.0 OVERSIGHT REVIEW PROCESS

Qwest or a CLEC may identify issues with this CMP using the Oversight Review Process. Issues submitted through this process may include:

- Improper notification under CMP
- No notification under CMP
- Issues regarding scope of CMP
- Failures to adhere to CMP
- Interpretations of CMP
- Gaps in CMP

This Oversight Review Process is optional. It will not be used when one or more processes documented in this CMP are available to obtain the resolution the submitter desires. The submitter is expected to use such available processes. If a submitter chooses to use this process, the following applies.

18.1 Guidelines

- A submitter must submit a issue for Oversight Review, as outlined in Section 18.2 or 18.4.4
- A submitter must raise issues within a reasonable period of time after the submitter becomes aware of an issue
- A response to an Oversight Review Issue may be that the resolution requested should be pursued under a different process in this CMP
- If the parties do not agree whether this process applies, the issue will be brought before the CMP Oversight Committee to determine whether the resolution sought by the submitter is available through this process or another documented process in this CMP

18.2 Issue Submission

An issue may be presented to the CMP body at a monthly CMP Meeting as part of the standing agenda item relating to the operation and effectiveness of CMP (*See* Section 2.1) or may be formally submitted by an e-mail to cmpesc@qwest.com and the CMP POC of the carrier that is the subject of the issue. If the issue is presented at a Monthly CMP Meeting and is not resolved, the submitter must follow the e-mail submission process.

In the event a party chooses to submit an e-mail as described above, the subject line of the issue submission e-mail must include:

- Company name
- "CMP OVERSIGHT REVIEW ISSUE SUBMISSION"

The submission e-mail must include appropriate supporting documentation, if applicable, and, to the extent that the supporting documentation does not include the following information, the following must be provided:

- Description of issue
- Basis for considering the matter an Oversight Review Issue

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- Citation from the Qwest Wholesale Change Management Document that addresses specific guidelines, if applicable
- Desired resolution
- Contact information including Name, Title, Phone Number, and e-mail address

Qwest must acknowledge receipt of the complete issue submission with an acknowledgement within one (1) business day. If the issue submission does not contain the above-specified information, Qwest must notify the submitter within one (1) business day, identifying and requesting information that was not originally included. When the issue submission is complete, the acknowledgement email will include:

- Date and time of issue submission receipt
- Date and time of acknowledgement email

Qwest must issue a notification announcing that an Oversight Review Issue has been submitted within two (2) business days after receipt of the complete issue e-mail submission. The subject of the notification will include "CMP OVERSIGHT REVIEW ISSUE SUBMISSION."

18.3 Issue Resolution

18.3.1 Response

The carrier cited in the original submission must respond by e-mail to cmpesc@qwest.com. Subject line of the Oversight Review issue response e-mail must include:

- Company name
- "CMP Oversight Review ISSUE RESPONSE"

The response e-mail must include appropriate supporting documentation, if applicable, and, to the extent that the supporting documentation does not include the following information, the following must be provided:

- Agreement/disagreement with the issue
- Reason for agreement/disagreement
- Citation from the Qwest Wholesale Change Management Process Document that addresses responding company position, if applicable
- Response to desired resolution, and alternative proposed resolution, if applicable
- Respondent contact information including Name, Title, Phone Number, and e-mail address

Qwest must distribute a notification with the contents of the response e-mail within two (2) business days of receipt. The subject of the notification must include "RESPONSE TO CMP OVERSIGHT REVIEW ISSUE."

18.3.2 Issue Meeting

If the submitter of the Oversight Review Issue is not satisfied with the response provided under Section 18.3.1, the submitter may request a meeting of Qwest and interested CLECs to discuss the issue. Such meeting will be held no later than five (5) business days after the submitter's meeting request. One of the matters to be addressed at this meeting is whether additional

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meetings should be held to address the issue. Such meetings will be open to all CLECs and Qwest shall provide advanced notification of such meetings pursuant to this CMP. Qwest will provide notification of the outcome of these discussions within two (2) business days after such discussions are concluded. The subject of the notification must include "OUTCOME OF CMP OVERSIGHT REVIEW ISSUE."

18.3.3 Election to Pursue Issue with CMP Oversight Committee

At any point in the process under Sections 18.2 or 18.3, a participant in the discussions of an Oversight Review issue may elect to pursue the issue with the CMP Oversight Committee by sending an email to cmpesc@qwest.com.

18.3.4 Escalation or Dispute Resolution

If any party is not satisfied with the outcome of this Section 18.3, it may follow the Escalation or Dispute Resolution Processes.

18.4 CMP Oversight Committee

18.4.1 Membership

The CMP Oversight Committee will be comprised of one representative from Qwest, one representative from each of up to six (6) CLECs, and one representative from each public utilities commission that wishes to participate. Members of the CMP Oversight Committee must have a comprehensive understanding of this CMP. Names of the members of the CMP Oversight Committee will be listed on the Qwest Wholesale CMP website at the following URL: http://www.qwest.com/wholesale/cmp/coc.html. The membership of the committee has been established through the end of 2003. For 2004 and each year thereafter, the CLEC membership will be established on an annual basis through self nomination. If more than six (6) CLECs are nominated for membership, the CLECs will rank the nominees. The six (6) highest ranked nominees will be the CLEC members of the committee for the following year.

18.4.2 Role of the CMP Oversight Committee

The CMP Oversight Committee will act as a subject matter expert regarding the provisions of this CMP. The CMP Oversight Committee will deliberate on CMP Oversight Review Issues and make recommendations to the CMP body on matters such as interpretation of this CMP and proposed changes to this CMP. A recommendation of the CMP Oversight Committee may result in a CR to change this CMP as contemplated by Section 2.1.

18.4.3 Meetings of the CMP Oversight Committee

Meetings of the CMP Oversight Committee will be called on an ad hoc basis, as needed to address CMP Oversight Review Issues as described in Section 18.4.4, and will be called in the same manner, and applying the same time periods, as set forth in Section 3.0, Change Management Process Meetings. A CMP Oversight Committee meeting may be held at the end of

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a scheduled monthly CMP Meeting. In addition to the CMP Oversight Committee members, other persons may participate in the CMP Oversight Committee meetings to assist the committee in understanding the issues; however, final recommendations to the CMP body may only be made by the CMP Oversight Committee members. In order to conduct a meeting of the CMP Oversight Committee, a majority of its members must be present in person or by teleconference.

18.4.4 Submission of Oversight Review issues to the CMP Oversight Committee

Oversight Review issues may be submitted to the CMP Oversight Committee in a number of ways:

- When parties disagree on the application of the Oversight Review Issue Submission Process to an issue that is raised (*See* Section 18.1)
- A party submitting a CMP Oversight Review Issue under Section 18.2, may direct that the issue be brought to the CMP Oversight Committee;
- During the process under Section 18.3, or once that process is completed, a CMP participant may raise the Oversight Review Issue to the CMP Oversight Committee;
- A CMP Oversight Review Issue may be referred to the CMP Oversight Committee during a Monthly CMP Meeting

18.4.5 CMP Oversight Review

Qwest must issue a notification announcing that a CMP Oversight Review Issue has been referred to the CMP Oversight Committee within two (2) business days after such referral is made. This notification will provide the information for the meeting of the CMP Oversight Committee. The subject of the notification will include "POTENTIAL CMP OVERSIGHT REVIEW ISSUE REFERRED TO THE CMP OVERSIGHT COMMITTEE." The notification will solicit from committee members and submitting carrier, dates during the next ten (10) calendar days on which they are available to meet to address the issue. Qwest will establish a meeting date will be established based on the members' and submitting carrier's availability.

18.4.6 Status and Recommendations of the CMP Oversight Committee

Status of outstanding Oversight Review issues will be provided at the monthly CMP meetings and will be posted on Qwest's Wholesale CMP website at the following URL: www.qwest.com/wholesale/coc.html. Recommendations of the CMP Oversight Committee will be distributed to the CMP by e-mail notification with a heading that includes "RECOMMENDATION OF THE CMP OVERSIGHT COMMITTEE." Such notifications will state the issue and briefly describe the recommendation and include a link to more detailed information about the issue. Recommendations of the CMP Oversight Committee will be included on the agenda for the next monthly CMP meeting for discussion by the CMP body. If there is not agreement on a single recommendation by the CMP Oversight Committee, the notification will include the competing recommendations discussed by the CMP Oversight Committee.

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1.0 RANK ELIGIBLE CRS

ompany	Status	Title	Shirt Size	Est LOE Min	Est LOE Max	CR Presenter	Ranking Note
'est	Pending Withdrawal	Pre-order Transaction: Due Date availability & standard Intervals	Extra Large	5501	8000	Winston, Connie	Category A: Not Rank Eligible
'est	Pending Withdrawal	Shared Distribution Loop- Long Term	Large	3001	5500	Winston, Connie	Category A: Not Rank Eligible
'est	Pending Withdrawal	Line Splitting for UNE-P accounts	Large	3001	5500	Winston, Connie	Category A: Not Rank Eligible
est	Pending Withdrawal	Flowthrough validate LPIC LSR Entries	Medium	751	3000	Winston, Connie	Category A: Not Rank Eligible
est	Pending Withdrawal	Add New Auto Push Statuses	Medium	751	3000	Winston, Connie	Category A: Not Rank Eligible
est	Pending Withdrawal	Intrabuilding Cable.	Large	3001	5500	Winston, Connie	Category A: Not Rank Eligible
est	Pending Withdrawal	Cancellation Remarks	Small	201	750	Winston, Connie	Category A: Not Rank Eligible
est	Clarification	PID Impact - PO-2B: Unbundled Loop and Local Number Portability Edits	Large	3001	5500	Martain, Jill	Category B: Above the Line
est	Clarification	PID Impact - PO-2B: Resale POTS Edits	Large	3001	5500	Martain, Jill	Category B: Above the Line
est	Presented	Unbundled DID/PBX Trunk Port Facility move from LS to PS	Medium	751	3000	Winston, Connie	Category C: Rank Eligible
est	Presented	DSL Flowthrough - Re-Branding	Large	3001	5500	Winston, Connie	Category C: Rank Eligible
est	Presented	Shared Loop Enhancements	Medium	751	3000	Winston, Connie	Category C: Rank Eligible
est	Presented	Add New UNE-P PAL to IMA	Large	3001	5500	Winston, Connie	Category C: Rank Eligible
est	Presented	Wholesale Local Exchange Freeze	Large	3001	5500	Winston, Connie	Category C: Rank Eligible
est	Presented	Reject Duplicate LSRs	Medium	751	3000	Martain, Jill	Category C: Rank Eligible
helon	Presented	Add an online glossary of the field title abbreviations to help menu of IMA GUI	Medium	751	3000	Eschelon	Category C: Rank Eligible

- IMA 11.0 INITIAL PRIORITIZATION FORM

Title	Company	Interface	Products Impacted	Shirt Size	Est LOE Min	Est LOE Max
Unbundled DID/PBX Trunk Port Facility move from LS to PS	Qwest	IMA Common	Unbundled PID/PBX Trunk Port	Medium	751	3000
DSL Flowthrough - Re-Branding	Qwest	IMA Common	DSL	Large	3001	5500
Shared Loop Enhancements	Qwest	IMA Common	Shared Loop	Medium	751	3000
Add New UNE-P PAL to IMA	Qwest	IMA Common	UNE-P PAL	Large	3001	5500
Wholesale Local Exchange Freeze Based on CSRs	Qwest	IMA Common	All	Large	3001	5500
Reject Duplicate LSRs	Qwest	IMA Common	All Products	Medium	751	3000
Add an online glossary of the field title abbreviations to help menu of IMA GUI	Eschelon	IMA GUI	All Products	Medium	751	3000
Create a separate field for line numbers in EDI responses	Eschelon	IMA EDI		Large	3001	5500
Add OCn capable loop LSR to IMA	ELI	IMA Common	DS1, DS3 & OCn Loop Orders	Large	3001	5500
CLECs require availability to view completed LSR information in IMA GUI	Verizon	IMA GUI	Resale	Large	3001	5500
Ability to send dual CFA information on an LSR for HDSL orders	WorldCom	IMA Common	HDSL	Small	201	750
Limited IMA GUI Access for Pre-Order Transactions Only	McLeodUSA	IMA GUI	All	Medium	751	3000
Incorrect Consolidation of DR5 USOC in IMA	Qwest	IMA Common	ISDN PRI	Medium	751	3000
IMA Pre-Order - Use CCNA to retrieve a Design Layout Report (DLR)	Qwest	IMA Common		Medium	751	3000
Revision of TOS field in IMA	Qwest	IMA GUI	UNE-P, Resale	Medium	751	3000
PIC Freeze Documentation	Qwest	IMA Common	Resale, UNE	Medium	751	3000

IMA 11.0 INITIAL PRIORITIZATION LIST

Title	Company	Interface	Products Impacted	Shirt Size	Est LOE Min	Est LOE Max	Original List #
LSOG 6 - Upgrade Field Numbering and Naming to Existing Qwest Forms & EDI Maps **(FOUNDATION CANDIDATE) (NOTE: Per February CMP Meeting Discussion, this CR should be ranked higher than all other LSOG 6 Change Requests)**	Qwest	IMA Common	All Products	Extra Large	5501	8000	32
Flowthrough on Sup 2 Category Due Date	Qwest	IMA Common	All Products except Designed Products	Large	3001	5500	17
Allow customers to move and change local service providers at the same time. **(NOTE: Per February CMP Meeting Discussion, this CR should be ranked higher than #26)**	Eschelon	IMA Common	Centrex Resale, UNE-P	Extra Large	5500	8000	35
Reject Duplicate LSRs	Qwest	IMA Common	All Products	Medium	751	3000	6
IMA Pre-Order - Use CCNA to retrieve a Design Layout Report (DLR)	Qwest	IMA Common		Medium	751	3000	14

APPENDIX D: SAMPLE CHANGE REQUEST FORM – AS OF 09/16/02

CHANGE REQUEST FORM

CR # _____ **Status:** _____

Originated By:

Date Submitted: _____

Company: _____ Internal Ref# _____

Originator: _____, _____, _____/_____

Name, Title, and email/phone#

Area of Change Request: Please click appropriate box(es) and fill out the section(s) below.

☐ Product/Process ☐ System

Exception Process Requested: Please click appropriate boxes

☐ Yes ☐ No

(Exception Process Requests will be considered at the next monthly CMP meeting unless Emergency call/meeting requested)

☐ Emergency call/meeting requested

- ☐ Pre-meeting with Qwest requested
- ☐ Qwest SME(s) requested at Pre-Meeting (list if required) _____, _____, _____

Available Dates/Time for Clarification/Emergency Pre Meeting
1.
2.
3.
4.
5.

Regulatory or Industry Guideline CR: Please click appropriate box if you would like the CR to be considered as a Regulatory or Industry Guideline change.

☐ Regulatory ☐ Industry Guideline

Title of Change:

Description of Change/Exception:

Expected Deliverables/Proposed Implementation Date (if applicable):

OPTIONAL – COMPLETE THE SECTIONS BELOW WHERE APPLICABLE

Products Impacted: Please Click all appropriate boxes and also list specific products within product group, if applicable.

☐ Ancillary	_____	☐ LNP	_____
☐ LIDB	_____	☐ Private Line	_____
☐ 8XX	_____	☐ Resale	_____
☐ 911	_____	☐ Switched Service	_____
☐ Calling Name	_____	☐ UDIT	_____
☐ SS7	_____	☐ Unbundled Loop	_____
☐ AIN	_____	☐ UNE	_____
☐ DA	_____	☐ Switching	

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- ☐ Operation Services
- ☐ INP
- ☐ Centrex
- ☐ Collocation
  - ☐ Physical
  - ☐ Virtual
  - ☐ Adjacent
  - ☐ ICDF Collocation
  - ☐ Other
- ☐ Enterprise Data Source
- ☐ Other
- ☐ Transport (Include EUDIT)
  - ☐ Loop
  - ☐ UNE-P
  - ☐ EEL (UNE-C)
  - ☐ Other
- ☐ Wireless
- ☐ LIS / Interconnect
  - ☐ EICT
  - ☐ Tandem Trans. / TST
  - ☐ DTT / Dedicated Transport
  - ☐ Tandem Switching
  - ☐ Local Switching

Area Impacted: Please click appropriate box.

- ☐ Pre-Ordering
- ☐ Provisioning
- ☐ Ordering
- ☐ Billing
- ☐ Maintenance / Repair
- ☐ Other

OSS Interfaces Impacted: Please click all appropriate boxes.

- ☐ CEMR
- ☐ IMA EDI
- ☐ MEDIACC
- ☐ TELIS
- ☐ EXACT
- ☐ IMA GUI
- ☐ Product Database
- ☐ Wholesale Billing Interface
- ☐ Directory Listing
- ☐ HEET
- ☐ SATE
- ☐ Other

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APPENDIX D: SAMPLE CHANGE REQUEST FORM (CONTINUED)

Change Request Form Instructions

The Change Request (CR) Form is the written documentation for submitting a CR for a Product, Process or OSS interface (Systems) change. The CR should be reviewed and submitted by the individual, which was selected to act as a single point of contact for the management of CRs to Qwest. Electronic version of the CR Form can be downloaded from the Qwest Wholesale WEB Page at http://www.qwest.com/wholesale/cmp/changerequest.html.

Product/Process and System CRs may be submitted to Qwest via e-mail at: cmpcr@qwest.com

To input data to the form, use the Tab Key to navigate between each field. The following fields on the CR Form must be completed as a minimum, unless noted otherwise:

Submitted By

- Enter the date the CR is being submitted to the Qwest CMP Manager.
- Enter Company's name and Submitter's name, title, and email/Phone #.
- Optional – identify potential available dates Submitter is available for a Clarification Meeting.
- Optional – enter a Company Internal Reference No. to be identified.

Area of Change Request

- Select the type of CR that is being submitted (Product, Process, or Systems).

Exception Process Requested

Originator should indicate if they wish to have the request handled on an exception basis.

Exception requests will be considered at the next monthly CMP meeting, unless the Originator requests an emergency call/meeting.

Optional - Select Emergency call/meeting requested, if an emergency call/meeting is required.

Optional - Originator may request a pre-meeting with Qwest by selecting the Pre-meeting with Qwest requested box.

Optional - Originator may identify certain Qwest SME(s) to attend the Pre-meeting by selecting the Qwest SME(s) requested at Pre-Meeting box and listing the SME(s).

Regulatory or Industry Guideline CR

- Select either Regulatory or Industry Guideline if you would like the CR to be considered as a Regulatory or Industry Guideline change

Title of Change

- Enter a title for this CR. This should concisely describe the CR.

Description of Change/Exception

- Describe the Functional needs of the change being requested. To the extent practical, please provide examples to support the functional need and the names of Qwest personnel with whom the originator has been working to resolve the request. Also include the business benefit of this request.
- If Exception Process requested, provide reason for seeking an exception.

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Expected Deliverables/Proposed Implementation Date (if applicable)

- Enter the desired outcome required (e.g. revised process, clarification, improved communication, etc.) and the desired date for completion. The specific deliverables Qwest must produce in order to close the CR. The originator should provide as much detail as possible.

Products Impacted – Optional

- To the extent known, check the applicable products that are impacted by the CR.

Area Impacted – Optional

- To the extent known, check the applicable process areas that are impacted by the CR.

OSS Interfaces Impacted – Optional

- To the extent known, check the applicable systems that are impacted by the CR.

Qwest's CMP Manager will complete the remainder of the Form.

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APPENDIX E: SPECIAL CHANGE REQUEST PROCESS (SCRP) REQUEST FORM

SAMPLE

Qwest Wholesale Change Management Process (CMP)

Special Change Request Process (SCRP) Form

In the event that a systems CMP CR is not ranked high enough in prioritization for inclusion in the next Release, or as otherwise provided in the Qwest Wholesale CMP, the CR originator may elect to invoke the CMP Special Change Request Process (SCRP) as described Section 10.3 of the Qwest Wholesale Change Management Document.

The SCRP may be requested up to five (5) calendar days after prioritization results are posted. However, the SCRP does not supercede the process defined in Section 5.0 of the Qwest Wholesale Change Management Process Document.

The information requested on this form is essential for Qwest to evaluate your invocation of the Special Change Request Process (SCRP). Specific timeframes for evaluating your request are identified in the Special Change Request section of the Qwest Wholesale Change Management Process Document.

Complete the application form in full, using additional pages as necessary, and then submit the form to cmpesc@qwest.com. All applicable sections must be completed before Qwest can begin processing your request.

Requested By Name: _____ Email Address: _____

Company Name: _____

Address: _____

_____

Primary Technical Contact

Name: _____ Email Address: _____

Telephone Number: _____ Fax Number: _____

Primary Billing Contact

Name: _____ Email Address: _____

Telephone Number: _____ Fax Number: _____

Note: Throughout this document, OSS Interfaces are defined as existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services (local exchange services) provided by CLECs to their end users

Note: Throughout this document, the terms "include(s)" and "including" mean "including, but not limited to."

Date of Request:_____

Date Received: _____ *(Completed by Qwest CMP Manager)*

1. Provide Qwest Wholesale CMP CR number for which you are requesting the SCRP:

_____

2. Provide reason for invoking the SCRP.

_____

_____

3. Provide proposed release to include CR in or proposed implementation date.

_____

_____

4. Provide any additional information that you feel would assist Qwest in preparing the SCRP quote.

_____

_____

5. List contact information for any other companies joining in the SCRP.

Company Name: _____

Contact Name: _____ Email Address: _____

Telephone Number: _____ Fax Number: _____

Company Name: _____

Contact Name: _____ Email Address: _____

Telephone Number: _____ Fax Number: _____

6. List additional contacts, such as technical personnel, who may help us during the evaluation of this request.

Contact Name: _____ Email Address: _____

Telephone Number: _____ Fax Number: _____

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Contact Name: _____ Email Address: _____

Telephone Number: _____ Fax Number: _____

Please submit this form to Qwest in the following manner:

Send an e-mail to the Qwest CMP SCRP mailbox (cmpesc@qwest.com). The subject line of the e-mail message must include:

- "SCRP FORM"
- CR number and title
- CR originator's company name

The text of the e-mail message must include:

- Description of the CR
- A completed SCRP Form
- A single point of contact for the SCRP request including:
  - Primary requestor's name and company
  - Phone number
  - E-mail address
- Circumstances which have necessitated the invocation of the SCRP
- Desired implementation date
- If more than one company is making the SCRP request, the names and point of contact information for the other requesting companies.

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APPENDIX F: CLEC-QWEST VOTING TALLY FORM

Name of Call/Meeting:	
Date of Vote:	

Subject:	

Voting Carrier	Voting Participant (in person, by phone, or by email)	Vote		
		YES	NO	Abstain

Result:	

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DEFINITION OF TERMS

Term	Definition
CLEC	A telecommunications provider that has authority to provide local exchange telecommunications service on or after February 8, 1996, unless such provider has been declared an Incumbent Local Exchange Carrier under the Federal Telecommunications Act of 1996.
Design, Development, Notification, Testing, Implementation and Disposition	Design: To plan out in a systematic way. Design at Qwest includes the Business Requirements Document and the Systems Requirements Document. These two documents are created to define the requirements of a Change Request (CR) in greater detail such that programmers can write system software to implement the CR. Development: The process of writing code to create changes to a computer system or sub system software that have been documented in the Business Requirements and Systems Requirements. Notification: The act or an instance of providing information. Various specific notifications are documented throughout this CMP. Notifications apply to both Systems and Product & Process changes Testing: The process of verifying that the capabilities of a new software Release were developed in accordance with the Technical Specifications and performs as expected. Testing would apply to both Qwest internal testing and joint Qwest/CLEC testing. Implementation: The execution of the steps and processes necessary in order to make a new Release of a computer system available in a particular environment. These environments are usually testing environments or production environments. Disposition: A final settlement as to the treatment of a particular Change Request.
Good Faith	"Good faith" means honesty in fact and the observance of reasonable commercial standards of fair dealing.
History Log	A History Log documents the changes to a specific document. The log will contain the document name and, for each change, the

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Term	Definition
	document version number, change effective date, description of change, affected section name and number, reason for change, and any related CR or notification number.
Level of Effort	Estimated range of hours required to implement a Change Request
OSS Interface	Existing or new gateways (including application-to-application interfaces and Graphical User Interfaces), connectivity and system functions that support or affect the pre-order, order, provisioning, maintenance and repair, and billing capabilities for local services provided by CLECs to their end users.
OSS Interface Application to Application Testing • Controlled Production Testing • Initial Implementation Testing • Interoperability Testing Environment • Migration Testing • Regression Testing	Controlled Production Testing: Controlled Production process is designed to validate CLEC ability to transmit transactions that meet industry standards and comply with Qwest business rules. Controlled Production consists of submitting requests to the Qwest production environment for provisioning as production orders with limited volumes. Qwest and CLEC use Controlled Production results to determine operational readiness for full production turn-up. Initial Implementation Testing: This type of application-to-application testing allows a CLEC to validate its technical development of an OSS Interface before turn-up in production of new transactions or significantly changed capabilities. Interoperability Testing Environment: A production copy of IMA. It interfaces directly with Qwest's production systems for pre-order and order processing. As a result, all interoperability pre-order queries and order transactions are subjected to the same edits as production orders. A CLEC uses account data valid in Qwest production systems for creating scenarios on Qwest-provided templates, obtains approval on these scenario templates, and then submits a minimum set of test scenarios for all transactions it wishes to perform in production. Interoperability testing provides CLECs with the opportunity to validate technical development efforts and to quantify processing results. Migration Testing: Process to test in the Customer Testing Environment a subsequent application-to-application Release from a previous Release. This type of testing allows a CLEC to move from one Release to a subsequent Release of a specific OSS

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Term	Definition
	Interface. Regression Testing: Process to test, in the Customer Test Environment, OSS Interfaces, business process or other related interactions. Regression Testing is primarily for use with 'no intent' toward meeting any Qwest entry or exit criteria within an implementation process. Regression Testing includes testing transactions previously tested, or certified.
Release • Major Release • Point Release • Patch Release	A Release is an implementation of changes resulting from a CR or production support issue for a particular OSS Interface There are three types of Releases for IMA.: • Major Release may be CLEC impacting (to systems code and CLEC operating procedures) via EDI changes, GUI changes, technical changes, or all. Major Releases are the primary vehicle for implementing systems Change Requests of all types (Regulatory, Industry Guideline, CLEC originated and Qwest originated). • Point Release may not be CLEC code impacting, but may affect CLEC operating procedures. The Point Release is used to fix bugs introduced in previous Releases, apply technical changes, make changes to the GUI, and/or deliver enhancements to IMA disclosed in a Major Release that could not be delivered in the timeframe of the Major Release. • Patch Release is a specially scheduled system change for the purpose of installing the software required to resolve an issue associated with a trouble ticket.
Release Notification	A notification distributed by Qwest through the Mailout tool to provide the information required by the following sections of this CMP: 7.0 - Introduction of a New OSS Interface, 8.0 - Change to Existing OSS Interfaces and 9.0 - Retirement of Existing OSS Interfaces.
Release Production Date	The Release Production Date is the date that a software Release is first available to the CLECs for issuance of production transactions.
Software Defects	A problem with system software that is not working according to the Technical Specifications and is causing detrimental impacts to the users.
Stand-alone Testing	A Stand-Alone Testing Environment is a test environment that can

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Term	Definition
Environment (SATE)	be used by CLECs for Initial Implementation Testing, Migration Testing and Regression Testing. SATE takes CLEC pre-order and order transaction requests, passes the requests to the stand-alone database, and returns responses to the CLEC user. SATE uses pre-defined test account data and requests that are subject to the same BPL IMA/EDI edits as those used in production. The SATE is intended to mirror the production environment (including simulation of all legacy systems). SATE is part of the Customer Test Environment.
Sub-systems	A collection of tightly coupled software modules that is responsible for performing one or more specific functions in an OSS Interface.
Subject Matter Expert (SME)	An individual responsible for products, processes or systems identified or potentially affected by the CLEC or Qwest request. When attending a CMP meeting, a SME will either answer specific questions about the request or take action items to answer promptly specific questions.
Technical Specifications	Detailed documentation that contains all of the information that a CLEC will need in order to build a particular Release of an application-to-application OSS Interface. Technical Specifications include: • A chapter for each transaction or product which includes a business (OBF forms to use) description, a business model (electronic transactions needed to complete a business function), trading partner access information, mapping examples, data dictionary Technical Specification Appendices for IMA include: • Developer Worksheets • IMA Additional Edits (edits from backend OSS Interfaces) • Developer Worksheets Change Summary (field by field, Release by Release changes) • EDI Mapping and Code Conversion Changes (Release by Release changes) • Facility Based Directory Listings • Generic Order Flow Business Model The above list may vary for non-IMA application to application interfaces
Version	A version is the same as an OSS Interface Release (Major or Point

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Term	Definition
	Release)

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EXHIBIT

C-2

admitted

COVAD – 2

Attorneys for DIECA Communications, Inc., d/b/a Covad Communications Company

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION TO RESOLVE ISSUES RELATING TO AN INTER-CONNECTION AGREEMENT WITH QWEST CORPORATION	)	Docket No. T-03632A-04-0425

RESPONSE TESTIMONY OF
ELIZABETH BALVIN

FILED ON BEHALF OF
DIECA COMMUNICATIONS, INC.
D/B/A COVAD COMMUNICATIONS COMPANY

January 18, 2005

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EB-3 (2 pages)
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EB-5 (2 pages)

I. IDENTIFICATION OF WITNESS

Q. MS. BALVIN, PLEASE IDENTIFY YOURSELF FOR THE COMMISSION.

A. My name is Elizabeth (Liz) Balvin and I am employed by Covad Communications Company ("Covad") as the Director of External Affairs for the Qwest region. My business address is 7901 Lowry Boulevard, Denver, Colorado 80230.

Q. MS. BALVIN, PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR JOB RESPONSIBILITIES AND EXPERIENCE.

A. As Director of External Affairs, my primary responsibility is to drive Qwest business related issues to resolution. This includes resolution of operational problems, OSS issues (from prequalification through billing), and negotiating acceptable solutions with Qwest so that Covad can pursue meaningful business opportunities in this market. Qwest is a critical piece of Covad's puzzle, thus driving operational and OSS issues on a business-to-business level is necessary. This is done via the change management process, at industry workshops, and in interconnection agreement negotiations. To understand Covad's issues, I work directly with our internal groups that are attempting to do business with Qwest on a daily basis.

While new to Covad I am not new to the telecommunications industry as I worked for MCI for nearly 11 years. I began my tenure with MCI on the long distance side of the house reconciling credit card billing. Later, I audited ILEC unbillable records and negotiated settlements when inaccurate records were produced. I then supervised the automation of casual billing records and then

finished my career at MCI as Senior Project Manager in the Carrier Relations group. As Senior Project Manager, I served as the technical advisory group member for Qwest third party tests (such as the ROC and the AZ OSS testing process). In addition, I was the single point of contact at MCI for Qwest Change Management Processes and actually assisted in the development of the "re-designed" change management process that exists today.

In one of my last assignments at MCI, I was also responsible for establishing an EDI interface with Qwest for local services. Upon implementation, I drove to resolution issues with the interface that caused local orders to be rejected. I was responsible for driving issues from order entry through billing and the goal was to settle these issues at the business table in order to eliminate the necessity for recourse to regulatory complaints and proceedings.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony , I will be responding to the testimony of Qwest witness William Easton on Issue 8 (billing time frames).

III. ARBITRATION ISSUES

ISSUE 8: TIME FRAME FOR PAYMENT OF BILLS, DISCONTINUANCE OF ORDERING, AND DISCONNECTION OF SERVICE

Q. MR. EASTON SUGGESTS THAT COVAD "IS LIKELY NOT CONCERNED ABOUT THE TERMS GOVERNING PAYMENT FOR SERVICES RENDERED TO QWEST." IS THIS AN ACCURATE REFLECTION OF COVAD'S POSITION?

A. To the contrary, as discussed at length in my Direct Testimony, Covad has a significant interest in the terms governing payment for services rendered by Qwest. While Covad has every intent to pay for services rendered, the timeframes imposed must take into consideration Qwest billing deficiencies, minimize the impact to end users seeking Covad services (new order), and reduce premature disconnects in error for Covad end user customers.

As identified previously but worth repeating here:

1. Covad seeks 15 additional days to the "payment due date" but *only* when the following conditions exist: an invoice contains (1) line splitting or loop splitting products, (2) a missing circuit ID, (3) a missing USOC, or (4) new rate elements, new services, or new features not previously ordered by CLEC (collectively "New Products")". While 15 additional days would be required, Covad has proposed language to accommodate a date certain when Covad's review procedures must be reduced to the 30 day interval – i.e. after 12 months experience. A date certain timeframe calls for Covad to establish efficient billing review procedures that are not easily known upon implementation of "new products". The language in part states "After twelve (12) months' experience, such New Products shall be subject to the thirty (30) Day time frame hereinafter discussed."

2. Covad seeks only 30 additional days before "discontinuance of order processing" can be imposed by Qwest because end users seeking Covad's services should not be unduly impacted.

3. Covad seeks only 30 additional days before Qwest can begin "disconnection of services" because again, Covad end user's are not at fault and should not be impacted prematurely.

Q. PLEASE CORRECT MR. EASTON'S TESTIMONY REGARDING THE TIME FRAMES THAT APPLY HERE.

A. Covad and Qwest are negotiating interconnection agreements in other states. As such, while Covad initially proposed longer intervals which are discussed by Mr. Easton, those time frames have been modified since Direct Testimony was filed such that Mr. Easton's testimony is no longer accurate. For purposes of this arbitration, Covad has proposed the following billing time frames:

	Payment Due Date	Discontinuance of Order Processing	Disconnection of Services
Qwest	30	30	60
Covad Revised Proposal	30 (except some 45)	60	90

Q. MR. EASTON CLAIMS COVAD'S PROPOSAL WOULD HAVE "AN IMPACT ON QWEST'S CASH FLOW." HOW DO YOU RESPOND?

A. To be clear, Covad will pay invoices within 30 days, unless the billable amount falls into what Covad has termed as the "New Products" category (see above) or three other scenarios exist (2 of which – missing USOCs or circuit IDs -- Qwest has complete control over). These exceptions to Qwest's proposed 30 day payment interval are reasonable because 1) new products call for newly

implemented business rules to be applied by Qwest that must be sufficiently validated for accuracy; 2) missing circuit ID and/or USOC information cause manually intensive review of the records to validate for accuracy; and 3) new rate elements, services, or features again cause Qwest to implement new business rules that must be sufficiently validated for accuracy.

Q. MR. EASTON ASSERTS QWEST TIME FRAMES ARE "COMMERCIALLY REASONABLE," CAN YOU COMMENT?

A. Yes. I would begin by questioning how Qwest defines "commercially reasonable". In my mind, what may work for some companies may not meet the needs of Covad, thus commercial reasonableness must take into consideration not only the business needs of the parties in question but nuances that may take time to resolve, as Covad's language attempts to do.

Q. QWEST ALSO ASSERTS THAT THE LANGUAGE SURROUNDING BILLING TIME FRAMES WERE "ADDRESSED DURING THE 271 WORKSHOPS." HOW DO YOU RESPOND?

A. While Qwest believes these issues were sufficiently ironed out during the 271 workshops, billing experience with respect to the wholesale providers was not yet well-developed, and neither were Qwest's billing systems. Covad now challenges the language because of the issues it identified through practical experience.

Q. WHAT DO YOU HAVE TO SAY TO THE POINT QWEST MAKES WITH RESPECT TO "AT&T/TCG RECENTLY COMPLETED INTERCONNECTION NEGOTIATIONS WITH BOTH PARTIES

AGREEING TO THE PAYMENT LANGUAGE THAT COVAD CHALLENGES HERE."?

A. Covad was not privy to the negotiations that took place between Qwest and AT&T/TCG, thus I don't feel it is appropriate to form an opinion here. I will simply state that AT&T's limited entry into the local market, which has now been terminated, calls into question whether the agreement between Qwest and AT&T on this particular issue is at all germane.

Q. MR. EASTON ALSO CALLS INTO QUESTION COVAD'S END USER PAYMENT TIMEFRAMES. PLEASE STATE WHY COVAD'S POLICIES ARE IRRELEVANT.

A. Mr. Easton has attached to his testimony as Exhibit WRE-1 a tutorial posted on Covad's website to help our end users understand the information provided for on our bills. Based on the tutorial, Qwest states that "Covad uses the same 30 day period". The tutorial aside, Covad end user *paper* bills are "only two pages long, in total...with just a few line items that clearly state the product and product type for which the customer is being billed" whereby a 30 day interval is appropriate. See Exhibits EB-2 through EB-5. Here we are talking about billing between companies (paper and electronic), in extremely large volumes, and such bills must be verifiable by electronic, not manual means. Covad's simple invoices to its customers are not relevant to the issue at hand.

Q. MR. EASTON ALSO CLAIMS THAT COVAD CAN DISPUTE THE BILL APPARENTLY AT ANY TIME SUBSEQUENT TO THE PAYMENT DUE DATE. IS THAT ACCURATE?

A. I don't believe that statement is accurate. Based on the language of the proposed IA, it appears to Covad that the only type of billing disputes that it can permissibly raise beyond the fifteen days provided for in Section 5.4.4 are limited to billing disputes relating to inaccuracies in rates billed. As the last sentence of Section 5.4.4 makes clear, "Nothing in this Section shall be construed to restrict the Parties' right to recover amounts paid in excess of lawful charges, which shall be subject to the time limits set forth in Section 5.18.5." Consequently, for a number of deficiencies/errors that lead to Covad bill disputes, these types of claims would be barred, a belief which is reinforced by Qwest's responses to certain of Covad's data requests that were provided in the Utah arbitration proceeding.

Equally important, the procedural safeguards that surround the billing dispute section appear to apply only to the disputes raised within fifteen days of the payment due date. Without these safeguards or mechanisms, which are designed to drive resolution, the ability to simply say "we dispute a bill" accomplishes nothing. And use of other mechanisms, like the audit right contained in the interconnection agreement or just blindly disputing billings in order to buy time to review a bill, are relatively costly and time consuming for both parties. By far the most effective way to ensure that Covad pays what it owes and raises only legitimate billing disputes is to accord Covad more time to review its bills.

Q. MR. EASTON SUGGESTS THAT ELECTRONIC BILLING SHOULD RESULT IN MORE EFFICIENT MEANS TO ANALYZE QWEST BILLS. IS THAT CHARACTERIZATION ACCURATE?

A. Yes, if the information is complete on the bills provided. When critical information is missing and/or inaccurate, though, errors are automatically generated that require Covad to employ manually intensive review procedures. For example, as discussed in my Direct Testimony, Covad is forced to employ manually intensive review procedures when Qwest fails to provide circuit identification numbers, universal service ordering codes (USOCs), inaccurately applies an expected rate, or applies a rate that is subject to multiple zones.

Q. CAN COVAD GET BILL DEFICIENCIES CORRECTED VIA THE "SERVICE DELIVERY COORDINATORS" AS MR. EASTON SUGGESTS AT PAGE 10 OF HIS DIRECT TESTIMONY?

A. No, we cannot. While the Qwest billing contacts may provide information or explanations about why bills are formatted or fail to contain information, any actual systems and/or process changes necessary to accurately reflect billing must go through Qwest's Change Management Process ("CMP").

Q. MR. EASTON ASSERTS THAT, GIVEN CLECS ABILITY TO OPT INTO COVAD'S INTERCONNECTION AGREEMENT IN ITS ENTIRETY, QWEST IS AT RISK FOR EXTENDED PAYMENT DUE DATE TIME FRAMES. HOW DO YOU RESPOND?

A. As previously stated, the language proposed by Covad should provide the proper incentive for Qwest to address legitimate billing deficiencies. In turn, Covad's language requires payment due dates for "new products" be reduced to 30 days

after a 12 month period, thereby creating an incentive for CLECs to implement efficient analysis procedures within a date certain timeframe.

Q. WHAT ABOUT MR. EASTON'S ASSERTION THAT PERFORMANCE MEASURMENTS IN PLACE TODAY PROVIDE THE PROPER INCENTIVE FOR QWEST TO ADMINISTER COMPLETE AND ACCURATE BILLS?

A. BI-3, titled "Billing Accuracy – Adjustments for Errors" specifically evaluates the accuracy with which Qwest bills CLECs, *focusing on the percentage of billed revenue adjusted due to errors*. Covad's recommended payment due dates (30/except some 45) provides the opportunity to validate Qwest bills only under certain circumstances that require more time for review. That said, the performance measure BI-3 would only provide the proper incentive if Covad's analysis resulted in disputed charges, which may not be the case (particularly given the way the IA is drafted and the limitations that appear to be in place on the types of billing claims that may be raised). The increased interval simply provides the means to accurately review prior to rendering payment and/or disputing billing records. The Covad language, on the other hand, should result in Qwest addressing legitimate billing problems such that CLECs would not be afforded the 45 day interval without good cause.

BI-4, titled "Billing Completeness" matches non-recurring and recurring charges reflected on a completed service orders and minutes of use associated with CLEC local traffic over Qwest's network that are applied to the correct bills. This PID does not take into consideration the legitimate billing deficiencies identified by Covad. For example, while it is a fact that Qwest does not always provide the USOC, Qwest does provide the USOC description, thus the results would not be

impaired because the PID only calls for the reflection of the charges on the bill and in the end, no incentive is created for Qwest to address missing USOCs. In addition, Qwest does not track to any circuit identification number thus it cannot be accounted for in this PID. To reiterate, Covad's language will only provide 15 additional days if the resulting billable records fall into what Covad has termed "new products" category, and only for a date certain timeframe.

Q. PLEASE STATE WHY QWEST'S POSITION ON DISCONTINUANCE OF ORDERING PROCESSING IS UNREASONABLE.

A. Per my Direct Testimony, Covad does not dispute Qwest's right to discontinue processing orders, but only the time at which such discontinuance can occur. In addition, it is critical to understand that these provisions give to Qwest the power to destroy, if it so chooses, Covad's business in the state of Arizona. The end users seeking Covad's services should not be unduly impacted by billing reconciliation between Qwest and Covad. Covad's addition of *only* 30 days (not 60 as reflected by Mr. Easton) is to minimize impacts to end user's seeking its services. While Qwest has every right to be concerned about receiving payment to which it is legitimately entitled, that concern pales in comparison to Covad's concern about protecting the viability of its business in the event of a billing dispute.

It is important to keep in mind that the interconnection agreement must provide for safeguards that will allow Covad to work around situations that may benefit Qwest at Covad's expense. These safeguards are becoming ever more important as Qwest apparently is now attempting to modify its PAP obligations,

and eliminate the industry forum dedicated to improvements in the performance measures (PIDs). Covad's proposed billing time frames provide that safeguard, and should be approved by the Commission.

Q. DOES THE SAME REASONING APPLY TO COVAD'S REQUEST FOR AN EXTENSION OF THE TIME FRAMES FOR THE DISCONNECTION OF SERVICES AS FOR DISCONTINUANCE OF ORDER PROCESSING?

A. Yes, it does, and to clarify again, Covad seeks *only* 30 additional days before Qwest can disconnect end users whom have *not* chosen to leave Covad.

Q. PLEASE SUMMARIZE WHY COVAD'S PROPOSED PAYMENT, ORDER DISCONTINUANCE, AND SERVICE DISCONNECTION PROVISIONS ARE REASONABLE AND SHOULD BE ADOPTED.

A. Certainly. What is reasonable (and therefore should be included in the interconnection agreement) cannot be determined in the abstract. To the contrary, reasonableness must be evaluated against the task that Covad faces, and the severity of the consequences resulting from late payment, discontinuance of order processing, and disconnection of services. Covad's proposed billing time frames should be adopted because without them, Qwest is afforded no incentive to address the billing deficiencies highlighted by Covad, can rapidly halt new orders sought by end-users seeking Covad services, and possibly disconnections processed in error, again unduly impacting a Covad end user.

Q. DOES THIS CONCLUDE YOUR RESPONSE TESTIMONY?

A. This concludes my Response Testimony, however, I anticipate filing any additional testimony permitted by the Commission, and being presented for cross examination at the hearing on the merits.

Exhibit EB-2A

Covad Communications

Monthly Invoice

Invoice Date:	02/21/04
Invoice No:	
Account No:	
Billing Period:	02/21/04 - 03/20/04

Remit To:
Covad Communications
Department 33408
P.O. Box 39000
San Francisco, CA 94139-3408
Please make checks payable to Covad Communications,
and write your Account Number and Invoice Number on your check

[redacted]

Please print and mail the first page of this email with your payment to the above address:

BILL SUMMARY	
Previous Unpaid Balance	$334.00
Payment - Thank You	$0.00
Adjustments Detail below	$0.00
Balance Forward	$334.00
Current Charges	$169.00
Taxes on Current Charges	$0.00
TOTAL AMOUNT DUE	$503.58
Amount Due in Full by	03/22/04

TAX SUMMARY	
Taxes	Amount
Federal	$0.00
State	$0.00
City	$0.00
County	$0.00

Exhibit EB-2-A

TOTAL TAXES	**$0.00**

[illegible] NEWS

Try Covad's new Hosting Services - [illegible]! All hosting plans are backed by a 30-day satisfaction guarantee and we'll waive the setup fee (value $50) for a limited time! Covad small and Web hosting services allow you to quickly and easily establish your web site on the Internet. Sign up today in SMART Account Manager - www.covad.net!

[illegible]

To view your account details online or to update your account information and payment method, log onto www.covad.net. For questions about this bill, or to make a one time credit card payment, please contact Covad Customer Care at 1-[illegible]. Thank you for your business!

[illegible] DETAILS

Account Number:
Circuit ID: 100-651-470

From Date	To Date	Service	Charges	Event Type	Quantity	Price	Total Price
02/21/04	03/20/04	Dialup – 10 Hrs free	Monthly Charges		1	$0.00	$0.00
02/21/04	03/20/04	TeleSpeed 384 SDSL	Monthly Charges		1	$169.00	$169.00
		Total Current Charge for account					**$169.00**

Exhibit EB-3

[redacted]

Covad Communications

Monthly Statement

Invoice Date:	04/20/04
Invoice No:	
Account No:	
Billing Period:	04/20/04 – 05/19/04
Total Amount Due:	$39.95
Payment Due Date:	04/20/04

This statement is being sent to notify you that we attempted to charge your credit card and the charge did not get approved by your card provider.
Please call customer service at 1-888-642-6823 to make payment arrangements.

BILL-AT-A-GLANCE

Previous Balance	$79.90
Adjustments Detail below	$0.00
Payment charged to credit card	-$79.90
Balance	$0.00
Current Charges	$39.95
Taxes on Current Charges	$0.00
Total Monthly Charges	$39.95
Payment charged to credit card	$0.00
TOTAL AMOUNT DUE	$39.95
Unable to charge credit card on	04/20/04

TAX SUMMARY

Taxes	Amount
Federal	$0.00
State	$0.00
City	$0.00
County	$0.00
TOTAL TAXES	$0.00

COVAD NEWS

Covad's Customer Policies have been updated. Please check www.covad.net/legal.

Exhibit EB-3

CONTACT #'S

To view your account details online or to update your account information and payment method, log onto www.covad.net. For questions about this bill, or to make a one time credit card payment please contact Covad Customer Care at 1-888-642-6823. Thank you for your business!

INVOICE DETAILS

Account Number:
Circuit ID: 101-679-154

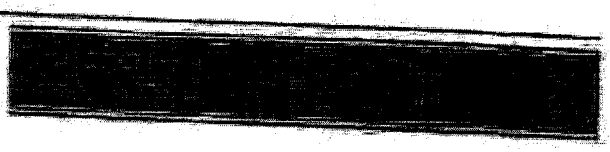
From Date	To Date	Service	Charges	Event Type	Quantity	Price	Total Price
04/20/04	05/19/04	Dialup Service	Monthly Charges		1	$0.00	$0.00
04/20/04	05/19/04	IP Address - 253 w/NAT	Monthly Charges		1	$0.00	$0.00
04/13/04		Payment	Payment - Thank you				-$79.90
04/05/04		Payment	Payment - Charge error				$0.00
03/21/04		Payment	Payment - Charge error				$0.00
03/21/04		Payment	Payment - Charge error				$0.00
03/20/04		Payment	Payment - Charge error				$0.00
[illegible]	[illegible]	[illegible] 1mb 384/128 ADSL	Monthly Charges		1	$39.95	$39.95
		Total Current Charge for account					$39.95

Covad Communications

Monthly Invoice

Invoice Date:	04/19/04
Invoice No:	
Account No:	
Billing Period:	04/19/04 - 05/18/04

Remit To:
Covad Communications
Department 33408
P.O. Box 39000
San Francisco, CA 94139-3408
Please make checks payable to Covad Communications,
and write your Account Number and Invoice Number on your check



Please print and mail the first page of this email with your payment to the above address:

BILL SUMMARY	
Previous Unpaid Balance	$2519.38
Payment - Thank You	-$1288.00
Adjustments Detail below	$0.00
Balance Forward	$1231.38
Current Charges	$553.95
Taxes on Current Charges	$0.00
TOTAL AMOUNT DUE	$1785.33
Amount Due in Full by	05/19/04

TAXES SUMMARY	
Taxes	
Federal	Amount
State	$0.00
City	$0.00
County	$0.00
	$0.00

TOTAL TAXES $0.00

NOTICES

Covad's Customer Policies have been updated. Please check www.covad.net/legal.

CONTACTS

To view your account details online or to update your account information and payment method, log onto www.covad.net. For questions about this bill, or to make a one time credit card payment please contact Covad Customer Care at 1-888-642-6823. Thank you for your business!

INVOICE DETAILS

Account Number:
Circuit ID: 101-760-169

From Date	To Date	Service	Charges	Event Type	Quantity	Price	Total Price
04/19/04	05/18/04	Dialup - 10 Hrs free	Monthly Charges		1	$0.00	$0.00
04/19/04	05/18/04	Hosting Email Only Package	Monthly Charges		1	$9.95	$9.95
04/19/04	05/18/04	IP Address - 29	Monthly Charges		1	$15.00	$15.00
04/01/04		Payment	Payment - Thank you				-$1268.00
04/19/04	05/18/04	TeleXtend 1.5M T1	Monthly Charges		1	$529.00	$529.00
		Total Current Charge for account					$285.95

Exhibit EB-5

[redacted]

Covad Communications

Monthly Invoice

Invoice Date:	01/19/04
Invoice No:	
Account No:	
Billing Period:	01/19/04 - 02/18/04

Remit To:
Covad Communications
Department 33408
P.O. Box 39000
San Francisco, CA 94139-3408
Please make checks payable to Covad Communications,
and write your Account Number and Invoice Number on your check.

[redacted]

Please print and mail the first page of this email with your payment to the above address:

BILL SUMMARY	
Previous Unpaid Balance	$1288.00
Payment - Thank You	$0.00
Adjustments Detail below	$0.00
Balance Forward	$1288.00
Current Charges	$667.48
Taxes on Current Charges	$0.00
TOTAL AMOUNT DUE	$1955.48
Amount Due in Full by	02/18/04

TAX SUMMARY	
Taxes	Amount
Federal	$0.00
State	$0.00
City	$0.00
County	$0.00

Exhibit EB-5

TOTAL TAXES $0.00

Try Covad's new Hosting Services - risk-free!!!All hosting plans are backed by a 30-day satisfaction guarantee and we'll waive the set-up fee (value $50) for a limited time! Covad email and Web hosting services allow you to quickly and easily establish your web site on the Internet. Sign up today in SMART Account Manager - www.covad.net!

To view your account details online or to update your account information and payment method, log onto www.covad.net. For questions about this bill, or to make a one time credit card payment please contact Covad Customer Care at 1-888-643-6873. Thank you for your business!

Account Number:
Circuit ID: 101-760-169

From Date	To Date	Service	Charges	Event Type	Quantity	Price	Total Price
01/19/04	02/18/04	Dialup - 10 Hr free	Monthly Charges		1	$0.00	$0.00
01/08/04	12/18/04	Domain Name Registration	Provision Charges	Activation	1	$20.00	$20.00
01/19/04	02/18/04	Hosting Email Only Package	Monthly Charges		1	$9.95	$9.95
01/08/04	01/18/04	Hosting Email Only Package	Provision Charges	Activation	1	$9.95	$3.53
01/19/04	02/18/04	IP Address - 29	Monthly Charges		1	$15.00	$15.00
01/19/04	02/18/04	TeleXtend 1.5M T1	Monthly Charges		1	$619.00	$619.00

Total Current Charge for account $667.48

Non-Confidential Version

EXHIBIT
tabbies
C-3
admitted

COVAD – 3

Covad-3

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	Docket No. T-03632A-04-0425

DIRECT TESTIMONY OF
MICHAEL ZULEVIC
(Non-confidential Version)

FILED ON BEHALF OF
DIECA COMMUNICATIONS, INC.,
D/B/A COVAD COMMUNICATIONS COMPANY

December 20, 2004

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I. QUALIFICATIONS

Q. MR. ZULEVIC, PLEASE INTRODUCE YOURSELF TO THE COMMISSION.

A. My name is Michael Zulevic and I am currently employed as a consultant by Covad Communications Company ("Covad"). Until July 12, 2004, I was employed by Covad as the Director of External Affairs for the Qwest region. My business address is 22801 Entwhistle Road E., Buckley, Washington 98321.

Q. MR. ZULEVIC, WOULD YOU PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR JOB RESPONSIBILITES AND EXPERIENCE?

A. Yes, Covad has retained me as a consultant to complete the work associated with the renegotiation of our Interconnection Agreement with Qwest Communications. While employed by Covad as Director of External Affairs, I was responsible for resolving business issues between Covad and its vendor, Qwest. This responsibility included driving resolution on operational, OSS, and billing problems, and negotiating with Qwest so that Covad can pursue meaningful business opportunities in this market. I worked with Qwest to resolve operational, OSS, and billing issues on a business-to-business level, in the change management process, at industry workshops, and in interconnection agreement negotiations. In working on these issues, I interfaced with internal Covad groups dedicated to provisioning Covad service, including services using stand-alone loops (2-wire analog and non-loaded loops and T-1 loops), line shared loops, and line split loops.

In my position immediately preceding my last role at Covad, my responsibilities included the deployment of Covad's line sharing equipment across the country. I was responsible for the architecture negotiations over the first-ever

25 line sharing agreement with U S WEST (or any ILEC, for that matter) in the
26 country. During the architecture negotiations, I helped to design the network
27 architecture that is now in place. I have also been involved with the network
28 design negotiations with other ILECs, including BellSouth, Verizon, Sprint, and
29 SBC.

30 Prior to joining Covad, I was employed by U S WEST (now Qwest) for 30
31 years, most recently as Manager, Depreciation and Analysis for the last few years I
32 was employed by US WEST. Prior to that, I worked in Network and Technology
33 Services ("NTS") for several years, providing technical support to U S WEST
34 interconnection negotiation and implementation teams. While working in these
35 two capacities, I provided testimony on technical issues in support of arbitration
36 cases and/or cost dockets in Minnesota, Iowa, Montana, Washington, Oregon,
37 Arizona, New Mexico, Nebraska, Utah, Wyoming, and Idaho. Prior to joining the
38 NTS group, I was responsible for providing technical support for the U S WEST
39 capital recovery program in the areas of switching, transport, and loop. I also
40 worked as a Central Office Technician and Central Office Supervisor at
41 U S WEST.

42 In addition to the extensive experience described above, I also have worked
43 as a Switch and Transport Fundamental Planning Engineer, where I represented
44 Fundamental Planning as a member of the ONA/Collocation Technical Team;
45 Circuit Administration Trunk Engineer, specializing in switched access services;
46 and Custom Network Design and Implementation Engineer working with the
47 design and implementation of private networks for major customers.

II. INTRODUCTION: PURPOSE AND SUMMARY OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my Direct Testimony is to describe two of the issues that were not resolved during Covad's many hours of negotiations with Qwest. I note that as recently as late September one of the issues Covad filed in its Petition for Arbitration with Qwest – whether Covad is entitled to efficient collocation space assignment practices from Qwest was resolved to the satisfaction of Covad. And since then, Issue 6 - Should Qwest allow a single Local Service Request (LSR) to be submitted for a migration of line split or loop split services -- was also resolved to Covad's satisfaction. As a result, Covad is withdrawing these issues from its Petition. There are, however, additional issues that have not been resolved between the parties that are also the subject of this arbitration. Those issues, the issues not addressed by me, will be addressed in the testimony of Elizabeth Balvin.

The issues I address in my Direct Testimony are issues I sincerely believe is critical to Covad's ability to compete in Arizona. The issues are as follows:

> Issue 1 – Should Qwest be permitted to retire copper facilities serving Covad's end users in a way that causes them to lose service?
>
> Issue 5 – Should Qwest provide regeneration between CLEC collocations, and can Qwest charge Covad for regeneration costs on terms and conditions and at rates that differ from those that apply to ILEC to CLEC cross-connect regeneration?

Q. PLEASE DESCRIBE YOUR INVOLVEMENT IN THE NEGOTIATION OF THE NEW INTERCONNECTION AGREEMENT WITH QWEST.

A. I served as lead negotiator for Covad during the entirety of our negotiations with Qwest regarding our new interconnection agreement for the state of Arizona. In my capacity as the lead negotiator, I served as our primary point of contact for

74 Qwest for all issues and discussions around the negotiations, and also was
75 responsible for identifying and pulling together the necessary Covad internal
76 resources to negotiate efficiently, effectively, and in good faith with Qwest.

77 **Q. PLEASE PROVIDE A SUMMARY OF THE NEGOTIATIONS.**

78 **A.** Covad initiated negotiations by a letter dated January 31, 2003. Since that time,
79 Covad and Qwest have agreed to numerous extensions, agreeing that the
80 negotiation request date for Arizona would be December 31, 2003. From
81 December 31, 2003, through today, Covad and Qwest have engaged in weekly,
82 and at times twice a week, negotiations in an effort to arrive at a new
83 interconnection agreement to replace the original agreement which has been in
84 place since 1999. The majority of the negotiation sessions have been conducted
85 via teleconference, however both negotiation teams did meet "face-to-face" on one
86 occasion at the Covad Denver office and as recently in Minnesota during the
87 arbitration hearing there in September. Additionally, some individual "face-to-
88 face" meetings between subject matter experts did occur in an effort to move
89 specific issues closer to resolution.

90 The original list of some 72 issues has now been reduced to six (6)
91 (including sub-issues), and both Covad and Qwest continue to meet, as necessary,
92 in an attempt to resolve the remaining issues prior to the hearing in this arbitration.
93 Further, in the spirit of attempting to reach compromise, Covad has continued to
94 revise its proposals in the hope of reaching some common ground with Qwest on
95 the remaining issues. Many issues critical to the Covad business plan have been
96 resolved. However, the parties have been unable to arrive at agreement on other
97 issues.

Covad believes that both parties conducted negotiations in the spirit of mutual respect, and attempted in good faith to resolve every issue possible without having to resort to arbitration. The following issues were not negotiated to resolution and must therefore be submitted for arbitrated resolution.

III. ARBITRATION ISSUE

ISSUE 1: COPPER RETIREMENT: SHOULD QWEST BE PERMITTED TO RETIRE COPPER FACILITIES SERVING COVAD'S END USERS IN A WAY THAT CAUSES THEM TO LOSE SERVICE?

Q. PLEASE PROVIDE SOME BACKGROUND ON THE COPPER RETIREMENT ISSUE.

A. Most homes and businesses in America are connected to the telephone network by a pair of twisted copper wires. This "last mile" connection is also called the local loop. In the simplest case, these loops connect a customer to a central office ("CO") where phone lines over a wide area are aggregated and the connection is made to the network backbone that delivers calls all over the world. This existing telephone network is truly ubiquitous – it reaches nearly every home and business in America and constitutes the quintessential bottleneck facility that cannot be replicated today on the same scale and scope at any cost. According to the FCC's ARMIS report, the book value of the total ILEC plant in service at the end of 2002 was over $388 billion. No company, not even the ILECs, could raise that kind of capital to duplicate an ubiquitous loop network.

Q. HOW DOES THIS PLAY INTO COVAD'S BUSINESS OF PROVIDING DSL SERVICE?

A. Digital subscriber line ("DSL") service works by breaking up data into chunks and sending these chunks through 4 kHz "channels" on the local loop at frequencies above that used for voice service. In the absence of placing cost-prohibitive

126 equipment at a mid-point on the copper loop (i.e., remote DSLAMs), the entire
127 span of the local loop from the CO to the end user must be copper if Covad wants
128 to provide any form of DSL service.[1] In other words, if Covad cannot access a
129 local loop comprised completely of copper, then it cannot provide service to its
130 end user customers.

131 **Q. HASN'T IT ALWAYS BEEN THE CASE THAT COVAD HAS REQUIRED**
132 **ACCESS TO AN ALL-COPPER LOOP?**

133 A. No. Until the Federal Communications Commission ("FCC") issued its Triennial
134 Review Order ("TRO"), Covad (or any other CLEC) could provide DSL service to
135 end users over hybrid copper-fiber loops if a packet switching functionality – an
136 ILEC DSLAM -- existed on that line. However, with the TRO, the FCC made an
137 abrupt about-face, and ruled that CLECs no longer had unbundled access to any
138 type of packet switching functionality placed by an ILEC on a hybrid copper-fiber
139 loop. Further, the FCC also determined in the TRO that the ILECs were not
140 required to provide unbundled access to hybrid copper-fiber loops, regardless of
141 whether there is any type of ILEC packet-switching functionality on that loop. So,
142 today, Covad can only provide its DSL service to customers over loops that are all
143 copper from the end user's home or business to the serving central office.

144 **Q. WHY IS COPPER RETIREMENT NOW SUCH A BIG ISSUE?**

145 A. The answer to that question is two-fold. As I mentioned above, per the TRO,
146 Covad can now only access the Qwest legacy copper network. And even as
147 Covad's access to the phone network is strictly limited to the copper loop plant,
148 the size of that copper network and the number of customers to whom we have
149 access shrinks on a daily basis as Qwest and the other Bells modernize their
150 networks by placing fiber.

---

[1] Covad provides several different "flavors" of DSL – ADSL, SDSL, IDSL and T1 service.

151 **Q. PLEASE PROVIDE MORE DETAIL AROUND THIS NETWORK**
152 **MODERNIZATION.**

153 A. Certainly. Fiber, or fiber-optic lines, are strands of high-quality glass that carry
154 digital data by way of light signals. Because of cost, competitive pressures, and
155 regulatory advantages, all of the ILECs, including Qwest, are upgrading their
156 networks to replace copper with fiber.

157 With respect to the cost issue, while it is expensive to lay fiber, the
158 maintenance costs for fiber cable are much lower than they are for copper,
159 resulting in long-term cost savings once fiber and the associated equipment is in
160 place. As for competitive issues, fiber optic lines can provide a tremendous
161 amount of bandwidth. Installing fiber can allow Qwest to provide voice, data, and
162 video services over a single loop (although that actually appears not to be the case,
163 as I discuss below). This capability allows Qwest to compete with the cable
164 companies for virtually all the services cable customers generally subscribe to. As
165 for the regulatory issues, as I discussed above, whenever Qwest replaces any or the
166 entirety of a copper pipe with fiber, it does not have to provide access to
167 competitors.

168 **Q. COPPER RETIRMENT IS ALSO A CONSUMER ISSUE, ISN'T IT?**

169 A. Absolutely. As I already mentioned, the size of the copper network to which
170 Covad has access – and as a consequence the number of current and potential
171 customers to whom we have access – is diminished daily. Looking at it from the
172 perspective of new consumers looking for a service provider, they have no choice
173 in providers where Qwest has retired copper and replaced it with fiber – the
174 consumers' only option is to go with Qwest (or, perhaps, the incumbent cable
175 company). And for consumers who have already opted to go with a competitor,
176 when Qwest replaces copper with fiber, it forces that consumer to go with a

177 provider that it does not and did not want as its service provider. Consequently,
178 not only must the Commission decide how to manage copper retirement because
179 of the impact on competitors, but also it faces an important policy decision of how
180 it will protect and preserve consumer choice.

181 **Q. WHEN YOU DISCUSS THE RETIREMENT OF COPPER AND**
182 **REPLACEMENT WITH FIBER, ARE YOU TALKING ABOUT FIBER TO**
183 **THE HOME ("FTTH"), OR SOMETHING ELSE?**

184 A. The Covad proposal is now strictly limited to the situation in which Qwest has
185 retired copper feeder and the end result is something other than an FTTH loop, per
186 the TRO, or a fiber to the curb ("FTTC") loop, per the FCC's recent FTTC
187 Reconsideration Order.[2] By this I mean the Covad proposal on copper retirement
188 applies only when the "end result" after the Qwest deployment is either a hybrid
189 loop – a loop that is comprised of both fiber and copper media (i.e. fiber runs from
190 the central office to a field distribution interface, and the length of copper from the
191 FCI to the customer premise is copper and exceeds 500 feet) or mixed copper
192 media (i.e. an all copper loop, but different segments of the copper loop have
193 different gauges or transmission characteristics). Our proposal does not include
194 the scenario in which copper is retired and an FTTH or a FTTC loop is deployed
195 by Qwest. While the principle underlying Covad's proposal has not changed, we
196 believe that the language that should be incorporated into the interconnection
197 agreement should reflect the fact that the FCC has accorded the same treatment to
198 FTTC loops as was accorded to FTTH loops in the TRO, and also should make
199 clear that such fiber deployment must be for the purpose of actually providing

[2] *In the Matter of the Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*; CC Docket Nos. 01-338, 96-98 and 98-147, Order on Reconsideration (rel. Oct. 18, 2004), ("FTTC Reconsideration Order").

enhanced broadband services to mass market customers. Accordingly, I set out below Covad's revised copper retirement language:

> 9.1.15 In the event Qwest decides to retire a copper loop, copper feeder, or copper Subloop and replaces it with fiber, Qwest will: (a) provide notice of such planned retirement on its website (www.qwest.com/disclosures); and (ii) provide e-mail notice of such planned retirement to CLECs; and (iii) provide public notice of such planned replacement to the FCC. The e-mail notice provided to each CLEC shall include the following information: city and state; wire center; planned retirement date; the FDI address; a listing of all impacted addresses in the DA; a listing of all of CLEC's customer impacted addresses; old and new cable media, including transmission characteristics; circuit identification information; and cable and pair information.
>
> > 9.1.15.1 Continuity of Service During Copper Retirement. This section applies where Qwest retires copper feeder cable and the resultant loop is comprised of either (1) mixed copper media (i.e. copper cable of different gauges or transmission characteristics); or (2) mixed copper and fiber media (i.e. a hybrid copper-fiber loop) (collectively, "hybrid loops") over which Qwest itself could provide a retail DSL service. This section does not apply where the resultant loop is a fiber to the home (FTTH) loop or a fiber to the curb (FTTC) loop (a fiber transmission facility connecting to copper distribution plant that is not more than 500 feet from the customer's premises) serving mass market or residential End User Customers.
> >
> > > 9.1.15.1.1 When Qwest retires copper feeder for loops serving CLEC-served End User Customers or the CLEC at the time such retirement is implemented, Qwest shall adhere to all regulatory and legal requirements pertaining to changes in the Qwest network. Qwest will not retire copper facilities serving CLEC's End User Customers or CLEC, at any time prior to discontinuance by CLEC or CLEC's End User Customer of the service being provided by CLEC, without first provisioning an alternative service over any available, compatible facility (i.e. copper or fiber) to CLEC or CLEC End User Customer. Such alternative service shall be provisioned in a manner that does not degrade the service or increase the cost to CLEC or End User Customers of CLEC. Disputes over copper retirement shall be subject to the Dispute Resolution provisions of this Interconnection Agreement.

Along with its proposed language in Section 9.1.15, Covad struck its proposed language for Section 9.2.1.2.3.1, which included within its scope not

245 only the hybrid loops but FTTH and FTTC loops as well. Covad decided that this
246 was the appropriate way to address the copper retirement scenario since Qwest has
247 taken the view (which Covad opposed), time and again, that Section 9.2.1.2.3.1
248 applies only to FTTH loops.

249 **Q. ARE THERE ANY OTHER LIMITATIONS IN THE COVAD LANGUAGE**
250 **OF WHICH THE COMMISSION SHOULD BE AWARE?**

251 A. Yes. While, typically, when parties talk about parity, they discuss that issue in the
252 context of an ILEC – here Qwest – treating its retail and wholesale customers in
253 the same fashion. As I use it here, though, the Covad proposal provides for parity
254 of treatment of Qwest and Covad DSL customers. That is, the Covad proposal
255 applies (1) when the resultant loop is not an FTTH or FTTC loop; and (2) Qwest
256 itself would be able to provide a retail service over the loop(s) deployed. In that
257 way, the Covad proposal ensures that its customers will continue to receive service
258 only where Qwest's own customers impacted by copper retirement would also
259 continue to receive service. Further, the Covad proposal ensures that Qwest need
260 not deploy equipment solely to support Covad customers if it had not already
261 planned on deploying such equipment in order to accommodate its own customers.

262 **Q. DOES IT MATTER LEGALLY IF COVAD'S PROPOSED LANGUAGE**
263 **APPLIES JUST TO THE HYBRID FIBER-COPPER LOOPS?**

264 A. It absolutely does. While the Triennial Review Order ("TRO") discusses an
265 ILEC's rights with respect to unbundling and the retirement of copper if and when
266 it deploys an FTTH loop (and a similar discussion occurred in the FTTC
267 Reconsideration Order with respect to FTTC loops), the TRO is silent as to the
268 right of an ILEC to retire copper serving current CLEC customers when the
269 resulting loop is only a hybrid loop. The TRO and the FTTC Reconsideration
270 Order thus do not appear to provide Qwest with the same degree or scope of

271 protection relative to copper retirement in the hybrid scenario as opposed to the
272 FTTH or FTTC loop scenario.

273 **Q. IS COVAD'S ADVOCACY ON COPPER RETIRMENT DRIVEN BY ITS**
274 **CONCERNS ABOUT OBTAINING NEW CUSTOMERS SERVED ON A**
275 **HYBRID LOOP AS WELL AS EXISTING CUSTOMERS WHO ARE**
276 **IMPACTED BECAUSE THE COPPER ON THEIR EXISTING LOOP IS**
277 **BEING REPLACED BY FIBER?**

278 A. The sole issue we are addressing in this arbitration relative to copper retirement is
279 how to address the impact on *existing* Covad customers whose copper loops are
280 being replaced with a hybrid copper-fiber loop. In other words, the language we
281 proposed, and which I set out above, is strictly limited to impacts on existing
282 customers, and is designed solely to allow those customers to continue to receive
283 Covad service at no increase in price or decrease in service quality until the
284 customer chooses to disconnect his/her Covad service.

285 You can see very clearly from the language in Section 9.1.15 what is *not*
286 Covad's position, and what we are *not* trying to do. Covad is *not* preventing or
287 trying to prevent Qwest from undertaking routine network modifications or any
288 fiber upgrades or copper retirement resulting in hybrid loops. Covad is *not* trying
289 to force Qwest to keep copper or build copper where there is fiber placement.
290 Covad is *not* trying to create a method or process for adding customers where
291 apparently not permitted to do so per the TRO and the FTTC Reconsideration
292 Order. The sole goal of Covad's proposed IA language and position on the
293 copper retirement issue is to preserve Covad's existing customer base that might
294 otherwise be impacted by copper retirement.
295

296 **Q. PLEASE PROVIDE AN EXAMPLE OF HOW COVAD'S PROPOSED**
297 **LANGUAGE WOULD OPERATE.**

298 A. Sure. The concern, addressed by this issue, is limited in scope. The situation will
299 only arise when Qwest finds it has a copper cable that has become a significant
300 maintenance problem. It may be a 3600 pair *feeder* cable in Minnesota or
301 Washington that consistently gets wet, year after year, during the rainy season. Or
302 it may be a 4200 pair *feeder* in Arizona or New Mexico that has finally succumbed
303 to many years of desert heat. These problems, brought on by the elements,
304 ultimately result in significant customer service degradation and a constant
305 increase in costs to Qwest for repair. In today's world, the final resolution is often
306 replacement of the entire copper *feeder* cable with fiber and the placement of fiber
307 fed digital loop carrier in the field. In these cases, the entire *feeder* cable must be
308 replaced, leaving no copper option for services currently in place. Under Qwest's
309 proposed language, in the case where Covad DSL customers are currently being
310 served by these copper facilities, the only option would be for Covad to disconnect
311 the services of these customers. Under the Covad proposal, for the impacted
312 customers – and let's say there are five -- those customers would continue to
313 receive Covad service at no increase in cost or decrease in service quality until
314 they choose to leave Covad.

315 Covad's proposal allows it to retain those existing customers and,
316 importantly, it also preserves individual customer's choice in providers until that
317 customer changes providers. This is a particularly important point, because that
318 customer chose Covad and is not choosing to leave Covad at time of the copper
319 retirement. The customer should not be forced to leave Covad – or any other DSL
320 provider -- before s/he otherwise chooses to do so simply because of acts of Qwest

321 over which neither the customer nor Covad have any control and which the FCC
322 has deemed not to warrant any kind of protection or special consideration.

323 **Q. DOESN'T THE USE OF GENERAL LANGUAGE LIKE "ALTERNATIVE**
324 **SERVICE" CREATE SOME CONFUSION ABOUT THE COVAD**
325 **PROPOSAL?**

326 A. I don't know how it could. In the first place, Covad proposed this language
327 several months ago. Presumably, had Qwest found it at all confusing, it would
328 have told Covad so, and proceeded to ask some questions in order to eliminate that
329 confusion. Instead, Qwest made no comment on the Covad language and, in fact,
330 refused to discuss it at all. So, if there is any confusion whatsoever on Qwest's part
331 regarding Covad's copper retirement proposal, it is entirely of Qwest's own doing
332 either because of its failure to negotiate this language or its failure to discuss or
333 pursue any questions it might have with Covad's proposed language.

334 Moreover, I am uncertain whether Qwest would even want further
335 additional specificity within the interconnection agreement itself. Because the
336 appropriate service option for each impacted end user customer may vary, I think
337 it would be unwise and fool-hardy to try and nail down one particular service
338 option. Such an approach might chain Qwest to one service option when another
339 service might prove to be a better alternative. Further, pinpointing one service
340 option as "the" alternative service that Qwest must provide ignores the fact that
341 technologies and products are changing and what might be available or work
342 today, might not work – or even be available as a product from Qwest --
343 tomorrow. Flexibility in identifying an alternative service is by far the better
344 approach given the product and technology changes our industry has seen to date.

345 **Q. PLEASE EXPLAIN WHY THERE IS NO REASON FOR ANY SUPPOSED**
346 **CONCERNS REGARDING THE PURPORTED AMBIGUITY OF**
347 **COVAD'S "ALTERNATIVE SERVICE" PROPOSAL.**
348 A. The two critical characteristics of any alternative service, service quality and price
349 stability, are clearly defined. Contrary to Qwest's protestations otherwise, clear
350 and obvious metrics exist to determine whether a given customer's service is
351 "degraded" by the move to an alternative service: availability of the connection,
352 and the speed of that connection, measured in kilobits per second (kbps). Qwest's
353 professed ignorance as to what Covad's proposal means is questionable at best,
354 given its adamant refusal to discuss during negotiations any of these terms and the
355 multitude of situations in which language in interconnection agreements has
356 obvious, though not precisely explained, implications.
357 One need not look far to find an example- Qwest's own proposal regarding
358 copper retirement contains equally general language when it states that "Qwest and
359 CLEC will jointly coordinate the transition of current working facilities to the new
360 working facilities so that service interruption is held to a minimum." This
361 language can be read to mean that Qwest will provide access to fiber feeder and
362 distribution facilities, even FTTH loops, or it can be read to mean that Qwest will
363 provide something less. Also, what constitutes "minimum" service disruption
364 under Qwest's proposal? This language is open to a certain level of interpretation,
365 perhaps even a greater level than Covad's proposed language.
366 **Q. DOES COVAD HAVE ANY SPECIFIC IDEAS IN MIND REGARDING**
367 **THE ALTERNATIVE SERVICE THAT WOULD BE PROVIDED BY**
368 **QWEST?**

369 A. Notwithstanding our desire to provide Qwest with as much flexibility as possible,
370 one service option that comes to my mind is one that Qwest already makes
371 available on a volume basis. Specifically, Qwest has a product offering out, called
372 the Qwest DSL Volume Plan Agreement --- or "VISP" service offering, which I
373 have attached to my testimony as Exhibit MZ-1. With this product offering, a
374 CLEC is able to provide just broadband service (as opposed to the combined voice
375 and data product Qwest has proposed and which I discuss below) to customers
376 even where those customers are served over a hybrid copper-fiber loop.
377 Consequently, this is a product that most likely would meet Covad's service and
378 product requirements (although not the pricing requirements, given the pricing
379 contained in the VISP agreement), and which has already been developed, defined
380 and implemented by Qwest.

381 **Q. WHAT ABOUT POTENTIAL ALTERNATIVES QWEST HAS PROPOSED**
382 **IN OTHER INTERCONNECTION ARBITRATION PROCEEDINGS?**

383 A. As I understand Qwest's testimony in prior arbitration proceedings, Qwest has
384 identified two products that potentially may serve as alternatives – the Qwest
385 Choice DSL product and the Qwest "naked DSL" product. As proposed by Qwest,
386 however, neither of these serves as a sufficient alternative.

387 Among many other reasons, resale of the Choice DSL product is not a
388 viable alternative to Covad because the Choice DSL product, by definition and
389 confirmed by Qwest in the Minnesota interconnection agreement arbitration, is the
390 provision of both analog voice and DSL service over the same line. In the first
391 place, Covad is not an analog voice provide and is not equipped (from a network,
392 expertise or contractual right perspective) to provide or support analog or

residential voice service. Even more problematic, because the voice service likely would be a Covad branded voice service, Covad would have to first persuade the customer to change voice providers (from Qwest to Covad) before it would be capable of reselling the Choice DSL service. Obviously, this creates a significant barrier to use of the Choice DSL product because the customer may not want to change voice providers. Equally important, given the pricing packages that Qwest makes available when customers get both local and long distance service from Qwest, Covad could not match the Qwest service offering since it does not provide any type of analog or residential long distance service, and it certainly cannot match the local service rates Qwest can offer by virtue of the bundle. The net result is that there are insurmountable barriers to the successful use of the Choice DSL product –even without factoring in the price that Qwest wants Covad to pay for this service.

The "naked DSL" product is equally unsatisfactory as an alternative, albeit for different reasons or problems that exist at this moment. First, based on Qwest's news releases, naked DSL is a "second line" product – meaning that it is not provided over the primary line, but must be provisioned on a dedicated, standalone, second line. As the Commission knows, a spare second line running to the premise is not always available, nor – particularly in a state like Arizona – might that second line be capable of supporting broadband service. Beyond that, however, it is impossible to determine anything about the "naked DSL" product from the Qwest website. While Qwest has provided some pricing information regarding the "naked DSL" product to Covad, that pricing information only demonstrates that naked DSL is not an economically viable alternative.

417 **Q. QWEST HAS COMPLAINED ELSEWHERE THAT THE COVAD**
418 **PROPOSAL WILL FORCE QWEST TO INCUR SUBSTANTIAL, BUT**
419 **COMPLETELY UNDEFINED AND UNQUANTIFIED COSTS. PLEASE**
420 **RESPOND.**

421 A. Absolutely. Qwest has raised concerns elsewhere that the Covad proposal would
422 result in Qwest incurring costs far beyond what it reasonably could or should be
423 required to bear. As an initial matter, while Qwest has made this claim quite
424 loudly, it also admitted in the Colorado arbitration that it had made no attempt to
425 quantify these costs or undertake any kind of study to accurately or even
426 adequately capture what these costs are, or what the magnitude of such costs might
427 be. In other words, while Qwest claims concern about costs, to date we haven't
428 seen any evidence of them or why or how Qwest would not recover its costs.

429 Qwest also claims that providing any kind of alternative service would
430 result in Qwest sustaining additional costs in order to develop a product to meet
431 Covad's needs. Of course, as I discuss above, Qwest offers and supports a product
432 that very likely would meet Covad's needs (assuming the pricing conditions of no
433 increase in cost to Covad or its end user customer are met) so such costs just
434 wouldn't materialize.

435 Finally, Qwest claims that the Covad proposal would force Qwest to
436 support the cost of maintaining two loops – the fiber feeder it has deployed as well
437 as copper facilities to support Covad's "alternative service." That cost, however,
438 would only be sustained by Qwest if it made an economically irrational decision.
439 By this I mean that Qwest certainly could interpret its requirement to provide an
440 alternative service as one that requires it to maintain copper loop plant that it

441 otherwise would have retired. Conversely, of course, Qwest could interpret it in a
442 number of other ways, which would meet Covad's needs and not require Qwest to
443 maintain copper plant it otherwise would have retired. That choice is Qwest's, and
444 it should not in any way be construed as a barrier to Qwest providing an alternative
445 service where and when it retires fiber feeder. Finally, of course, because the
446 Covad proposal would not require Qwest to deploy equipment that it would not
447 otherwise deploy in order to provide DSL to its own retail customers, there is no
448 issue as to equipment costs that Qwest would not otherwise incur.

449 **Q. WHY DOESN'T QWEST'S PROPOSAL ACHIEVE THE SAME**
450 **OUTCOME THAT COVAD'S PROPOSAL ACCOMPLISHES?**

451 A. Well, as an initial matter, Qwest has made no proposal where fiber deployment
452 results in hybrid fiber-copper loops. In other words, Qwest's commitment to
453 keeping copper in the ground where technically feasible or to complying with state
454 specific obligations that might impact its copper retirement activity as set forth in
455 Section 9.2.1.2.3.2 is limited to the situation in which Qwest deploys FTTH loops.
456 To date, Qwest has refused to make a similar commitment to maintaining copper
457 where technically feasible or complying with state law requirements when Qwest
458 deploys hybrid fiber-copper loops.

459 **Q. DOES QWEST'S REFUSAL TO COMMIT TO ANY KINDS OF**
460 **PROVISIONS REGARDING MAINTENANCE OF COPPER WHERE**
461 **FIBER FEEDER IS DEPLOYED CONCERN YOU?**

462 A. It absolutely does. By refusing to extend its commitments to the situation in which
463 hybrid loops are deployed, Qwest is creating for itself an opportunity to take (not
464 win) customers that very specifically chose NOT to have Qwest as their DSL

465 provider. The possibility that Qwest might misuse its fiber upgrades causes me a
466 great deal of concern, particularly given the Qwest pattern of conduct of delaying
467 Covad market entry but expediting its own when Covad was rolling out its line
468 sharing network and the FCC's clear recognition at paragraph 277 of the TRO that
469 fiber deployment could be misused by incumbent LECs to create barriers to a
470 competitive presence.

471 **Q. WHAT HAPPENS TO COVAD'S CENTRAL OFFICE-BASED**
472 **COLLOCATION EQUIPMENT WHEN QWEST DEPLOYS FIBER?**

473 A. As more and more fiber feeder replaces copper, fewer and fewer potential
474 customers will be in reach of Covad's central office based DSL, which will result
475 in the progressive stranding of Covad's collocated investment. This is not an
476 inconsequential point. Today, in order to collocate in a single Arizona central
477 office, Covad incurs approximately *** **BEGIN CONFIDENTIAL** [redacted]
478 [redacted] **END CONFIDENTIAL** *** in non-recurring collocation costs and
479 approximately *** **BEGIN CONFIDENTIAL** [redacted] **END**
480 **CONFIDENTIAL** *** per month in recurring charges.[3] In addition, Covad will
481 lose the benefit of the investment it made in placing its equipment in the CO to the
482 tune of, on average, *** **BEGIN CONFIDENTIAL** [redacted]
483 **END CONFIDENTIAL** *** Additionally, Covad has ordered and paid for
484 transport (approximately *** **BEGIN CONFIDENTIAL** [redacted] **END**
485 **CONFIDENTIAL** *** in nonrecurring charges per DS1 and an average of ***
486 **BEGIN CONFIDENTIAL** [redacted] **END CONFIDENTIAL** *** per month in
487 recurring charges per DS1; Covad has incurred approximately *** **BEGIN**

488 **CONFIDENTIAL** [redacted] **END CONFIDENTIAL** ***in nonrecurring charges
489 per DS3 and *** **BEGIN CONFIDENTIAL** [redacted] **per month END**
490 **CONFIDENTIAL** *** in recurring charges per DS3) and UNEs to provide
491 service to those customers, all of which Covad will ultimately lose under the
492 Qwest proposal.

493 Covad is not passively sitting around waiting for Qwest to force customers
494 off of our network and to result in a stranding of our central office-based
495 collocation spaces and equipment. To the contrary, Covad is working to develop
496 alternative ways to provide service to our customers. Notwithstanding these
497 efforts, it is not appropriate for Qwest to have the unilateral ability to disconnect
498 existing Covad customers under the guise of technological development.

499 At the end of the day, while Qwest may complain about its supposed
500 investment disincentive (which, as I discuss below, is an illusory concern), it is
501 Covad that suffers the monetary harm because it loses the value of its central
502 office investment.

503 **Q. IN DESCRIBING THE COVAD PROPOSAL IN ACTION, YOU STATED**
504 **THAT ONLY A HANDFUL OF CUSTOMERS WOULD BE IMPACTED.**
505 **HOW DO YOU ARRIVE AT THAT CONCLUSION?**

506 A. By two different methods. First, Qwest is and has been replacing copper with
507 fiber. To date, those activities have not impacted Covad so we reasonably assume
508 that the impact will not be huge, just that there will be some impact. The second
509 way I arrive at that conclusion is based on our experience in other ILEC regions.
510 In the BellSouth region, which is of comparable size in terms of Covad's customer
511 base to the Qwest region, *** **BEGIN CONFIDENTIAL** [redacted] **END**
512 **CONFIDENTIAL** *** Covad customers have been impacted by copper
513 retirement with fiber replacement as of April 2004. Notably, BellSouth has been

514 far more aggressive than Qwest in replacing copper with fiber, and more than 40%
515 of the BellSouth remote terminals are served by fiber – whereas it appears that
516 only approximately 20% of Qwest's remote terminals are served by fiber.
517 Importantly, Covad filed copper retirement complaints in each of the BellSouth
518 states where customers were impacted, and was able to successfully settle those
519 complaints in a fashion that allowed those customers to continue to receive the
520 same service they were receiving before the retirement.[4]

521 **Q. IF IT IS ONLY A HANDFUL OF CUSTOMERS, WHY SHOULD THE**
522 **COMMISSION OR COVAD CARE ABOUT THESE CUSTOMERS?**

523 A. While four or five customers may be something Qwest is willing to ignore every
524 time it retires a copper feeder cable, Covad most certainly is not. And certainly,
525 that number increases with increased fiber deployment resulting in the retirement
526 of copper feeder cable. Covad is committed to delivering to each and every one of
527 its end users outstanding service. Covad's commitment is not just to provide the
528 service that the end user wants, but also to ensure that the end user's entire
529 experience with Covad, from ordering through disconnection, is a positive
530 experience and that the end users get what they want – excellent service *from*
531 *Covad.* Because of its commitment to service and end user satisfaction, Covad
532 does not just dismiss the predicament of a few customers because they are just a
533 few.

534 The Commission, too, does not ignore the predicament of a few consumers
535 just because there are a few rather than hundreds or thousands. If anything, the
536 Commission has evinced an overwhelming interest in making sure that each and
537 every consumer in Arizona is treated with respect and that providers over whom

[4] The precise terms of the settlements are confidential. However, Covad is permitted to disclose the fact that the complaints were settled successfully and that, as a result of the settlement, the customers continued to receive the same services they were receiving prior to the copper retirement.

538 the Commission exercises authority are responsive to their customers. Just
539 because only a few consumers may be impacted does not mean that they do not
540 deserve to have choices. To suggest otherwise is simply repugnant. If anything,
541 it is where only a few of the "little guys" are impacted that customer choice is
542 most important.
543
544 **Q. DOES THE COVAD PROPOSAL DISINCENT COVAD FROM**
545 **INVESTING IN ITS OWN NETWORK?**
546 A. No, it doesn't. As the Commission knows, Covad is a facilities-based provider.
547 As of August 2001, Covad had invested over $1.4 billion to build out its
548 nationwide network, and since that time Covad has spent tens of millions of
549 dollars more to maintain and upgrade its already world-class network and
550 operating support systems ("OSS"). Covad collocates its own equipment in
551 numerous Qwest central offices in Arizona and throughout six other states in the
552 Qwest region (Covad is Qwest's largest collocation customer). Covad relies solely
553 on its own equipment and network to provide service to customers in Arizona,
554 except when it must utilize dedicated interoffice transport leased from Qwest in
555 some circumstances and as well as that quintessential bottleneck facility, the local
556 loop. Because of its business plan, Covad utilizes its own network wherever and
557 whenever the technological and economic circumstances make it possible. But,
558 because it makes no sense to invest in a remote DSLAM simply to serve a handful
559 of customers for a limited time period, Covad would not make that investment
560 decision.

561 **Q. QWEST HAS SUGGESTED ELSEWHERE THAT COVAD'S PROPOSAL**
562 **WOULD REDUCE QWEST'S INCENTIVE TO DEPLOY FIBER**
563 **FACILITIES. DO YOU AGREE WITH THIS STATEMENT?**

564 A. Absolutely not. The potential impact to Qwest, should Covad prevail on this issue,
565 would be so minimal that any possibility of impacting a multi-million dollar
566 investment decision is overstated, if not unfounded.

567 **Q. PLEASE EXPLAIN.**

568 A. Covad is primarily a wholesale provider of DSL services. Our business partners,
569 who provide the retail service, have a nationwide marketing focus. At times, the
570 focus may be at a state level, but never at a wire center or neighborhood level (the
571 neighborhood level is referred to by telecom providers as a distribution area, or
572 DA). Because of this fact, many DAs will have few, if any, end user customers
573 with Covad DSL service. Our customer base is not concentrated in any one DA,
574 but instead, randomly distributed over all DAs served by wire centers where
575 Covad is collocated. The likelihood of more than a handful of Covad end user
576 customers being impacted by a fiber replacement is so highly remote that any
577 attempt to argue that multi-million dollar investment decision would be made on
578 this basis is suspect in my mind.

579 Equally important, as Qwest has acknowledged, a key factor in
580 determining whether to deploy fiber is the cost to maintain the existing copper. It
581 is a well known, and oft-repeated statement in the telecommunications industry,
582 that the savings enjoyed as a result of lower maintenance costs ensures that a fiber
583 deployment will pay for itself in 3-5 years. Further, since Covad's proposal
584 requires little or no additional expenditures in the form of equipment, no legitimate

585 argument can be made that Covad's proposal will decrease Qwest's incentive to
586 deploy fiber.
587
588 **Q. IF FIVE COVAD END USER CUSTOMERS WERE GOING TO BE**
589 **IMPACTED BY ONE FIBER CABLE REPLACEMENT PROJECT, WHAT**
590 **WOULD BE THE APPROXIMATE FINANCIAL IMPACT TO QWEST?**
591 A. Assuming an industry average churn rate (the length of time a typical customer
592 retains their DSL service) of two years, the difference in price between Qwest
593 wholesale and retail revenue is about $100.00 per month for all 5 customers, the
594 impact would be about $2,400.00. This is hardly enough to impact a decision as to
595 whether or not to deploy fiber to hundreds, if not thousands, of existing Qwest
596 customers.
597 **Q. CAN YOU SEE ANY POSSIBLE WAY THAT COVAD'S PROPOSAL**
598 **WOULD REDUCE QWEST'S INCENTIVE TO DEPLOY FIBER?**
599 A. Not in the least. Again, Covad's customers are so widely dispersed within the
600 Qwest network that impacts will be minimal, and certainly not significant enough
601 to discourage Qwest from deploying fiber cable. If Covad were a retail provider of
602 DSL, with established relationships with customers within a specific
603 neighborhood, higher concentrations of customers would be more likely.
604 However, unlike Qwest or the incumbent cable provider, Covad is not provided
605 this opportunity to target market to a specific neighborhood customer base.
606 Moreover, as I discussed above, I can envision at least one way in which
607 Qwest could provide an alternative service over any of the facilities available to an
608 existing Covad end user customer that would not change in any respect Qwest's

609 investment calculation or result in Qwest incurring any costs over and above what
610 it would otherwise incur when it decided to retire copper feeder and replace it with
611 fiber. Nor would this method (the VISP product) require Qwest to maintain
612 copper it would not otherwise maintain, or provide any type of access to fiber
613 facility beyond that required to provide service to existing Covad customers until
614 they choose to disconnect their service. Of course, notwithstanding what I can
615 envision, Covad will commit to working with Qwest to developing an alternative
616 service for Covad's impacted existing customers that will not increase Qwest's
617 costs beyond the costs it would otherwise incur in deploying fiber feeder and the
618 associated electronics in the first place.

619 **Q. EXPLAIN WHY COVAD'S PROPOSAL ACTUALLY BENEFITS QWEST.**

620 A. Under Covad's proposal, Qwest continues to receive revenue from Covad as it
621 continues to provide service to the customer. If Covad is not allowed to retain that
622 customer, then Qwest is not assured of any revenue whatsoever from that
623 customer. In other words, if Qwest forces Covad to cut off service to its
624 customer, the customer then has the option of choosing Qwest for its broadband
625 service, or choosing the cable company for broadband and video service. The
626 customer is free to choose the cable company, and if he or she does so, Qwest will
627 receive no revenue whatsoever. At least under Covad's proposal, Qwest will
628 continue to recover its costs and make a reasonable profit without any additional
629 expenses.

630 **Q. PLEASE EXPLAIN WHY THE DEPLOYMENT OF FIBER DOES NOT**
631 **LEAD TO ANY CONSUMER BENEFIT IN THE COPPER RETIREMENT**
632 **SCENARIO WITH WHICH COVAD IS CONCERNED.**

633 A. Fiber deployment does not necessarily result in any meaningful consumer benefit.
634 In the first place, we are not talking about a situation in which the consumer does
635 not already have broadband. To the contrary, in the copper retirement scenario we
636 are talking about, the consumer already has broadband from Covad. The
637 deployment of fiber thus doesn't result in any bridging of the "digital divide" since
638 none exists in the scenario Covad is concerned about. This is an important point
639 because, historically, the desire to incent broadband deployment (whether via
640 copper or fiber) has been driven by the desire to provide all consumers with access
641 to broadband. That traditional justification for creating a deployment incentive
642 simply does not exist here. The consumer already has broadband from a provider
643 of their choice.

644 More importantly, Qwest's fiber deployment has not been designed to
645 actually facilitate the provision of broadband services – enhanced or otherwise. In
646 fact, Qwest has deployed fiber in at least one state for no purpose other than to
647 support voice service, as Exhibit MZ-2 shows. And given what I know about the
648 network architecture that Qwest has chosen for purposes of supporting voice and
649 DSL service, the deployment of fiber alone in no way ensures that end users on the
650 end of an all fiber or hybrid copper-fiber loop can or will receive anything other
651 than plain old telephone service ("POTS"). In other words, while Qwest regularly
652 can and does deploy fiber and the equipment necessary to connect effectively to
653 copper distribution loops, unless Qwest specifically opts to deploy additional
654 equipment capable of supporting DSL service, Qwest's standard fiber deployment
655 is really only designed to support growth and additional needs for POTS and
656 POTS lines, and not DSL or enhanced broadband capabilities like video.

657 Additionally, because Qwest's fiber deployment is not made with a specific
658 requirement that the copper distribution loops be of length that can support DSL,
659 much less video services, Qwest's fiber deployment is very much oriented towards
660 relieving POTS capacity demands and not to providing broadband services –
661 enhanced (i.e., video) or otherwise (i.e., DSL).

662 To the extent that Qwest's fiber deployment is broadband capable, it
663 appears to be the rare exception, rather than the rule that the fiber Qwest has
664 deployed can provide any service other than what's already available over the all
665 copper loop running between the customer premises and the central office.
666 Finally, given DSL technology that will be available in 4-10 months, all copper
667 loops will also be able to support video services, thereby eliminating entirely any
668 service advantage that Qwest might gain (which is not a given, as I just explained)
669 by virtue of its fiber deployment.

670 **Q. QWEST HAS TALKED ELSEWHERE ABOUT THE FACT THAT ITS**
671 **FIBER DEPLOYMENT MAY BE CAPABLE OF SUPPORTING**
672 **BROADBAND SERVICES, DEPENDING ON THE TYPE OF CUSTOMER**
673 **PREMISES EQUIPMENT THAT THE CUSTOMER HAS. DOES THIS**
674 **CHANGE YOUR OPINION ABOUT QWEST'S FIBER DEPLOYMENT?**

675 A. No, it doesn't. The primary reason that it doesn't change my opinion is that,
676 whenever loop capabilities are contingent on the type of CPE a customer has, then
677 you are automatically talking about a business customer. As is clear from the TRO
678 as well as the FCC's FTTC Reconsideration Order, the FCC is not concerned
679 about broadband access and capabilities available to business customers
680 (presumably because those customers will always get what they want since they

yield the highest margins for telecom providers). Rather, the FCC made clear it wanted to incent the deployment of fiber and enhanced broadband services to residential customers. So, Qwest's attempt to bolster the supposed broadband capabilities of its fiber deployment is misleading, since such fiber is serving business and not residential customers.

Q. IN FACT, QWEST'S FIBER DEPLOYMENT WILL RESULT IN CONSUMER HARM, WON'T IT?

A. The deployment of fiber, if Covad's proposal is not adopted, will actually lead to consumer harm. The consumer has made his or her choice among providers and currently available service options. The choice to go with Covad should be honored until the consumer changes his or her mind, just as, if the consumer chooses to leave Covad, then that choice should be honored as well. Relatedly, of course, as consumers have fewer providers to choose from, their rates will go up as a result of the monopoly/duopoly service arrangement. At least under Covad's proposal, the consumer won't face an immediate jacking up of the price of the service he or she receives, because they have an alternative, lower-priced, and excellent service option in Covad.

Q. DO YOU TAKE ISSUE WITH QWEST'S COPPER RETIREMENT NOTICE PROCESS?

A. It is clear to us that Qwest's notice process is deficient.

Q. WHY IS THE QWEST NOTICE PROCESS DEFICIENT?

A. As I understand it, while Qwest will provide notice of all copper retirement activity, including copper retirement resulting in hybrid fiber-copper loops, the notice that Qwest is providing is inadequate to fully inform Covad that its

705 customers will be impacted. Right now, the Qwest notice simply lists the state, the
706 wire center, the planned retirement date, the DA number, the FDI address and the
707 replaced/replacing transmission media, as you can see from the attached Exhibit
708 MZ-3. This is absolutely insufficient to allow a CLEC to determine whether a
709 particular copper retirement will impact its customer base. Equally important,
710 there is nothing on the notification, whether in the form of a contact number or a
711 URL that would allow a CLEC to seek whatever additional information Qwest
712 might have relative to the impact of the copper retirement on the existing customer
713 base.

714 **Q. WHAT KIND OF INFORMATION MUST QWEST PROVIDE IN ORDER**
715 **TO ALLOW COVAD (AND ANY OTHER CLEC) TO DETERMINE**
716 **WHETHER A COPPER RETIREMENT IS CUSTOMER IMPACTING?**

717 A. Covad believes that the following information must be provided to Covad in order
718 for it to determine whether the copper retirement is customer impacting:

719 *City and State
720 *Wire center
721 *Retirement Date
722 *FDI address
723 *Listing of all impacted addresses in the DA
724 *Listing of all Covad customer impacted addresses
725 *Old and new cable media, including transmission characteristics
726 *Circuit identification number
727 *Cable and pair information

728 **Q. DO YOU BELIEVE IT IS REASONABLE TO REQUIRE QWEST TO**
729 **PROVIDE THIS INFORMATION TO CLECS?**

730 A. Absolutely. In the first place, with the exception of the FDI address and the cable
731 transmission characteristics, we pulled this listing of information based on what
732 BellSouth provides Covad every time it retires copper and there is an impact on
733 Covad's existing customer base. If BellSouth can provide this information,
734 certainly Qwest can as well. As for the two additional pieces of information, FDI
735 address and the cable transmission characteristics, Qwest appears already to be
736 able to provide that information so it should not be problematic at all to continue
737 providing that information.

738 Second, based on a recent copper retirement notification from Qwest, it
739 appears that Qwest is equally capable of discerning whether there are any specific
740 CLEC-customer impacts. Specifically, pursuant to a September 21, 2004 network
741 notification, attached hereto as Exhibit MZ-4, Qwest was able to determine with a
742 Colorado copper retirement that "there are no impacts to the CLEC community."
743 When asked by Covad how Qwest was able to make this determination, a Qwest
744 representative responded that "cable counts impacted by the change were reviewed
745 for working CLEC circuits." *See* Exhibit MZ-5. Qwest reiterated during the Utah
746 hearing that it first checks to see the types of services impacted by a copper
747 retirement and, if it is a service that is not necessarily compatible with fiber, it can
748 take the additional step of looking to see who the provider of that service is.

749 Based on this information, it appears clear that Qwest is more than capable
750 of making an individualized finding of whether specific Covad customers would
751 be impacted by a copper retirement. Despite that capability, Qwest is refusing to

752 make it available to Covad. The result is an anti-competitive situation in which
753 Qwest not only has the capability of targeting and taking Covad customers, but
754 also rendering Covad unable to at least make the disconnection of its own
755 customer a smooth experience for that customer.

756 **ISSUE 5 - REGENERATION: SHOULD QWEST PROVIDE**
757 **REGENERATION BETWEEN CLEC COLLOCATIONS, AND WHAT, IF**
758 **ANYTHING, SHOULD QWEST BE ALLOWED TO CHARGE COVAD**
759 **FOR REGENERATION?**

760 **(Sections 8.2.1.23.1.4 [proposed], 8.3.1.9 [proposed], and 9.1.10 [deleted])**

761 **Q. PLEASE PROVIDE SOME CONTEXT FOR THE REGENERATION**
762 **ISSUE.**

763 **A.** Regeneration is, quite simply, the reconstruction or "boosting" of a digital signal
764 so that it meets the ANSI standards (ANSI T1.102) for a particular type of loop or
765 service. For example, if by the time a DS1 digital signal travels from one
766 collocation space to another collocation space in the central office ("CO") it does
767 not meet the DS1 signal requirements, then that DS1 signal must be boosted back
768 to the appropriate level. So, in a nutshell, the regeneration issue deals with the
769 situation in which a boosting of the signal is required in order to provision a high
770 capacity circuit between two collocations spaces (either a single CLEC's two
771 spaces or the collocation spaces of two different CLECs) *within* a Qwest CO.
772 Importantly, for purposes of my testimony on this issue, the need for regeneration
773 arises when the collocation spaces are so far apart in the CO that the signal must
774 be boosted – or regenerated – so that it meets the applicable technical
775 specifications when it reaches the second collocation space.
776

777 **Q. UNDER WHAT CIRCUMSTANCES WOULD REGENERATION BE**
778 **REQUIRED?**

779 A. There are two scenarios in which the CLEC to CLEC cross-connect regeneration
780 issue arises. In the first scenario, Covad is connecting to the collocation space of
781 another CLEC for purposes of handing off traffic from the Covad network to the
782 other CLEC's network. More often than not, given differences in timing as to
783 when each CLEC collocated and the type of collocation arrangement selected
784 (caged, cageless, or virtual), the two CLEC's collocation spaces would not be
785 contiguous and instead would be located in areas of the CO separated from each
786 other as determined by Qwest when it assigned these collocation spaces, as I
787 discussed more fully below.

788 The second scenario is one in which Covad collocated in a central office
789 and, at some later date, determined it needed additional space. In this latter
790 scenario, if no space contiguous to the original collocation is available, then the
791 second Covad collocation space would be located at some distance, determined by
792 Qwest, away from its original collocation space.

793 Under the Qwest proposal, should the subsequent Covad collocation space
794 be located far away from the existing Covad collocation, or should either the
795 original or subsequent Covad collocation spaces be located away from another
796 CLEC it is doing business with, Covad (and/or the other CLEC) would need to
797 order a "finished service" from the Qwest tariff or incur the cost of placing
798 regeneration equipment either mid span or at both collocation arrangements, to
799 boost the signal between the collocation arrangements.

800 **Q. ARE THERE SITUATIONS OTHER THAN CLEC TO CLEC CROSS-**
801 **CONNECTIONS WHERE QWEST PROVIDES CENTRAL OFFICE**
802 **REGENERATION?**
803 **A.** Yes. Qwest provides regeneration, where it is required by ANSI standards, for
804 interconnection to Qwest's unbundled network elements (i.e., ILEC-CLEC
805 regeneration). For instance, if Covad were to order a dedicated transport circuit
806 between two Qwest central offices, and regeneration were required between
807 Qwest's frame and Covad's collocation in one of the central offices, Qwest
808 currently provides that regeneration and it is called ILEC-CLEC regeneration.
809 Qwest treats ILEC to CLEC regeneration as a wholesale product, and costs and
810 prices it on a TELRIC basis.
811 **Q. WHAT DOES QWEST CHARGE FOR ILEC TO CLEC**
812 **REGENERATION?**
813 **A.** Qwest charges $0 for ILEC to CLEC regeneration as a result of a 2002 cost docket
814 proceeding in this state. Qwest of course will argue that we're just trying to get
815 CLEC regeneration for free. The problem with that argument is that any inability
816 to charge for regeneration is strictly the fault of Qwest. It was given the
817 opportunity to make its case as to the appropriateness and amount of an ILEC-
818 CLEC regeneration charge and failed to do so. Qwest cannot pass off its failure to
819 make its case to Covad.
820 **Q. YOU MENTIONED PREVIOUSLY THAT THE NEED FOR**
821 **REGENERATION IS DRIVEN BY CABLE LENGTHS. ARE THERE**
822 **STANDARDS TO DETERMINE MAXIMUM CABLE LENGTHS?**

823 **A.** There are. The ANSI standards state that the maximum cable length for a DS1
824 signal is 655 feet, and the maximum cable length for a DS3 signal is 450 feet.

825 **Q. ARE THERE ASSUMPTIONS RELATED TO ACHIEVING THESE**
826 **MAXIMUM DISTANCES?**

827 **A.** Yes. The ANSI standard assumes that (1) the highest quality cable is used, and (2)
828 the cable is continuous (no intermediate cross-connects). If these assumptions are
829 not met, the maximum length is significantly diminished. In other words, if these
830 assumptions are not met, the need for regeneration may arise on a DS1 cable that
831 is far less than 655 feet and on a DS3 cable that is far less than 450 feet.

832 **Q. IS IT LIKELY THAT THESE MAXIMUM CABLE LENGTHS WILL BE**
833 **EXCEEDED AND REGENERATION REQUIRED WHEN CONNECTING**
834 **CLEC COLLOCATION ARRANGEMENTS?**

835 **A.** Yes. Although excessive cable lengths will occur most often in larger, multi-floor
836 central offices where demand for these circuits will be greatest, long cable runs
837 may also occur in single floor central offices due to the engineering requirements
838 surrounding cable placement.

839 **Q. PLEASE EXPLAIN.**

840 **A.** When engineering a cable route within a central office, a number of factors that
841 impact the length of cable needed must be considered. In a multi-floor
842 environment, a major impact is the distance to a riser cable opening in either the
843 floor or ceiling. Due to fire safety concerns, cable riser openings are very limited
844 and there may be a need to engineer a cable run well in excess of 100 feet in order
845 to reach the riser opening. Another engineering requirement is to run "like" cable
846 on the same ladder racking (ladder racking is connected to the ceiling in a central

847 office and used for carrying various types of cable within the central office). For
848 example, transmission cable used to carry DS1 and DS3 signal level circuits
849 cannot be placed on racking used to carry power or fiber optic cable. Other
850 engineering requirements, such as load weighting restrictions for the ladder
851 racking, can also impact the route needed to be used for placing cable. Due to
852 these engineering requirements, it is quite possible to require regeneration on DS1
853 or DS3 signal level circuits installed between a collocation and a second
854 collocation that is directly above it on the next floor. Several hundred feet of cable
855 could easily be required on each floor even though the collocations are physically
856 only 10 feet apart.

857 **Q. ARE DS1 AND DS3 SIGNAL LEVEL CIRCUITS COMMONLY USED BY**
858 **COVAD AND OTHER CLECS?**

859 **A.** Yes. Individual customer circuits (DS0 level) are aggregated onto high capacity
860 DS1 and DS3 signal level circuits for transport to various points in the network.
861 These are the two most commonly used circuit levels by Covad as we have both
862 types in almost all of our collocation arrangements.

863 **Q. WHAT THEN, SPECIFICALLY, IS THE PARTIES' DISAGREEMENT ON**
864 **THIS REGENERATION ISSUE?**

865 **A.** The parties' disagreement with respect to this issue is relatively clear. Covad
866 believes it should be able to order regeneration of a CLEC-to-CLEC cross
867 connect on the same terms and conditions it is able to order regeneration for any
868 other interconnection product, such as an unbundled loop, a transport circuit or,
869 specifically as in this case, an ILEC-to-CLEC cross connect. I set out below
870 Covad' s proposed language on the regeneration issue:

> 8.2.1.23.1.4 CLEC is responsible for the end-to-end service design that uses ICDF Cross Connection to ensure that the resulting service meets its Customer's needs. This is accomplished by CLEC using the Design Layout Record (DLR) for the service connection. Depending on the distance parameters of the combination, regeneration may be required. Qwest shall assess charges for CLEC to CLEC regeneration, if any, on the same terms and conditions, and at the same rates as for ILEC to CLEC regeneration.
>
> 8.3.1.9 Channel Regeneration Charge. Required when the distance from CLEC's leased physical space (for Caged or Cageless Physical Collocation) or from the collocated equipment (for Virtual Collocation) to the Qwest network ("ILEC to CLEC regeneration"), to CLEC's non-contiguous Collocation space ("CLEC to CLEC regeneration"), or to the Collocation space of another CLEC ("CLEC to CLEC regeneration") is of sufficient length to require regeneration based on the ANSI Standard for cable distance limitations. Channel Regeneration Charges shall not apply until the Commission approves a wholesale Channel Regeneration Charge. After approval of such charge, Channel Regeneration Charges shall be assessed for ILEC to CLEC and CLEC to CLEC regeneration on the same terms and conditions, and at the same rates. If CLEC requests Channel Regeneration in spite of the fact that it is not required to meet ANSI standards, Qwest will provide such regeneration and CLEC will pay the Channel Regeneration Charge described herein.

Qwest believes it is not required to provide a wholesale regeneration product at a TELRIC price (as opposed to a retail tariff finished service) for CLEC-to-CLEC cross connects.

Q. PLEASE EXPLAIN WHY APPLICATION OF COVAD'S PROPOSAL IS FAIR AND WILL RESULT IN EQUAL TREATMENT OF ALL CLECS.

A. Just as with ILEC-CLEC cross-connect regeneration, CLEC to CLEC cross-connect regeneration is a function of distance and time. It is a function of distance because as a signal travels across a cable, the signal strength weakens and thus may require regeneration, or boosting, to maintain the appropriate technical

909 parameters. It is a function of time because two CLECs that collocated in 1999 in
910 contiguous or adjacent space and who have a cross-connect may not require
911 regeneration, but a cross-connect between one of the 1999 collocators and a 2004
912 collocator several floors and linear feet away may require regeneration. Note that
913 the 2004 collocator likely will be placed in a location farther away than a 1999
914 collocator because all of the collocation spaces near the 1999 collocator where
915 taken by other CLECs that collocated prior to the 2004 CLEC.

916 In the case of Qwest and the 2004 collocator, regeneration would currently
917 be provided at no charge. However, the same does not hold true if the 2004
918 collocator wishes to cross-connect with the 1999 collocator. In the latter scenario,
919 the collocator requesting regeneration would have to pay for it, which results in
920 that collocator being penalized in the form of additional costs from which Qwest
921 remains free. The other CLEC likely would feel the cost impact, since it is
922 virtually assured that the requesting CLEC would pass on at least some of the
923 regeneration costs to its CLEC partner. That is an unfair, discriminatory result and
924 should not be permitted by the Commission.

925 **Q. WHY SHOULD QWEST BE REQUIRED TO PROVIDE REGENERATION**
926 **UNDER THE SAME TERMS AND CONDITIONS AND AT THE SAME**
927 **RATES AS AN ILEC TO CLEC CROSS CONNECT?**

928 A. As an initial matter, Qwest must perform CLEC to CLEC cross-connects as
929
930 required by FCC rules. 47 C.F.R. §51.323(h) states:

931 An incumbent LEC shall provide, at the request of a
932 collocating telecommunications carrier, a connection
933 between the equipment in the collocated spaces of two or
934 more telecommunications carriers, except to the extent the
935 incumbent LEC permits the carriers to provide the
936 requested connection for themselves... Where technically
937 feasible, the incumbent LEC shall provide the connection

> using copper, dark fiber, lit fiber, or other transmission medium, as requested by the collocating telecommunications carrier.

Further, as the FCC stated in its Fourth Report and Order,

> We find that pursuant to Section 201 that it would be unjust and unreasonable for an incumbent LEC to refuse to provision cross-connects between collocated competitive LECs. We also find that, in the alternative, such a refusal would be unjust, unreasonable and discriminatory within the meaning of Section 251(c)(6).[5]

Contrary to Qwest's assertions, these FCC findings and rules do not create a "regeneration exception" but rather provide that Qwest may either permit CLECs to make their own cross connection arrangements, or it must provide the cross connection, upon request. In the case of cross connections requiring regeneration, it is often impossible for CLECs to provide this regeneration themselves, and usually would require an inefficient engineering configuration even if such regeneration were possible from existing collocation space. Consequently, this regeneration issue is not whether Qwest must provide CLEC to CLEC cross-connects (Qwest surely has to agree that it must do so), but rather whether Qwest must provide regeneration for that CLEC to CLEC cross-connect in order to ensure that the signal traveling from one CLEC collocation space to a different collocation space maintains the appropriate specifications. I believe that law, logic, and technical issues dictate that Qwest is under an obligation to provide CLEC to CLEC regeneration on the same terms and conditions as for ILEC to CLEC regeneration.

---

[5] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, FCC 01-204, Fourth Report and Order (2001) at ¶ 59.

965 **Q. WHAT LAW AND LOGIC ARE YOU RELYING UPON?**

966 A. While I am not a lawyer, my understanding is that the FCC's Fourth Report and
967 Order, which I cited above and discuss more fully below, makes very clear what
968 Qwest's obligations are with respect to CLEC to CLEC cross-connects and, by
969 extension, CLEC to CLEC regeneration. In the Fourth Report and Order, the FCC
970 reconfirmed the fact that ILECs must provision cross-connects for CLECs[6] or, at a
971 minimum, allow CLECs to self-provision those cross-connects.[7]

972 More importantly, for purposes of resolving the regeneration dispute (Issue
973 5), the FCC made clear that this legal requirement to provision CLEC cross-
974 connects was made pursuant to Section 251(c)(6) of the Act. What this means
975 from a decisional perspective is key. Section 251(c)(6) is the section of the Act
976 that addresses collocation and which affirmatively requires that ILECs permit
977 CLECs to collocate in a central office in order to interconnect with other carriers
978 and to access UNEs. There is no doubt that ILEC to CLEC cross-connects are
979 designed specifically to meet these statutory purposes. And since the FCC
980 grounded its authority to require CLEC to CLEC cross-connects in Section
981 251(c)(6), CLEC to CLEC cross-connects likewise are designed to fill the same

---

[6] *Id.*

[7] Interestingly, the entirely of the FCC's discussion on this issue was not whether allowing CLECs to provision cross-connects themselves relieved ILECs of the obligation to provision cross-connects for CLECs (which is what Qwest suggests) but rather addressed the fact that the FCC could not *require* ILECs to permit CLECs to self-provision CLEC to CLEC cross-connects. Regardless of whether Qwest can avoid provisioning the cross-connect itself by allowing CLECs to self-provision a cross-connect, the FCC's conclusion that Section 251 gave it the authority to require Qwest to provision CLEC to CLEC cross-connects ultimately means that any such cross-connect must be practically, realistically and technically the same as an ILEC to CLEC cross-connect. If not, then Qwest has failed to comply with the non-discrimination requirements of Section 251. In real world terms, this means that the CLEC to CLEC cross-connect must be made available on the same rates, terms and conditions as ILEC to CLEC cross-connects.

982 purposes and must have all the same attributes and properties, such as
983 regeneration, that an ILEC to CLEC cross-connect would have.

984 A fundamental fact underlying regeneration is that it is generally provided
985 to ensure that carriers can actually interconnect and access UNEs at applicable
986 industry standards. As a consequence, since CLEC to CLEC cross-connects serve
987 the identical purpose as an ILEC to CLEC cross-connect, they should be supplied
988 with regeneration (just as an ILEC to CLEC cross-connect is) when necessary to
989 ensure appropriate technical signals on the same rates, terms and conditions.

990 Congress and the FCC left no room for question on this point. Because a
991 Section 251(c)(6) obligation carries with it the obligation that Qwest act in a non-
992 discriminatory manner when provisioning collocation elements such as cross-
993 connects, Qwest cannot provide a particular service, like regeneration, for one
994 Section 251(c)(6) cross-connect (here, ILEC to CLEC cross-connects) and then
995 refuse to provide regeneration on the same rates, terms and conditions for another
996 type of Section 251(c)(6) cross-connect (here, CLEC to CLEC cross-connects).
997 To find otherwise would result in collocation, interconnection and access to UNEs
998 that is different from (i.e., inferior) to the quality of the interconnection and access
999 Qwest accords to itself and therefore would be discriminatory. Moreover, since
1000 the FCC has already previously defined the requirement of "equal in quality"
1001 interconnection as a requirement that Qwest design interconnection facilities to
1002 meet the *same technical criteria and service standards, including transmission*
1003 *standards*, that are used within the Qwest network[8], there is no legitimate or good

[8] *Local Competition Order*, ¶224.

1004 faith reason to treat CLEC to CLEC regeneration on different rates, terms, and
1005 conditions than ILEC to CLEC regeneration.

1006 **Q. THE REQUIREMENT OF NON-DISCRIMINATION MAKES SENSE**
1007 **WHEN ONE CONSIDERS THE FACT THAT QWEST CONTROLS**
1008 **SPACE ALLOCATION IN THE CENTRAL OFFICE, DOESN'T IT?**

1009 A. It does. Qwest controls central office space and determines how to allocate space
1010 to itself and collocators within the CO. Presumably, because Qwest makes these
1011 decisions, if regeneration is required, it is a result of a Qwest decision. Qwest,
1012 however, cannot make these allocation and placement decisions in any old way.
1013 The FCC's rules that I discussed above do not permit Qwest to engineer its central
1014 office collocation arrangements in a way that artificially increases a CLEC's costs.
1015 That is, if Qwest engineers CO space in a fashion that increases a CLEC's costs,
1016 without any simultaneous technical or cost benefit to itself, then Qwest is in
1017 violation of the FCC's collocation rules which require that Qwest use the most
1018 efficient collocation space allocation arrangements possible.

1019 Basically what this means to me is that Qwest should not be allowed to
1020 assert a "take it or leave it" cross-connect architecture on Covad, but instead must
1021 provide an appropriate and efficient (both from an engineering and economic
1022 perspective) cross-connection architecture. Inefficiency in design is exactly what
1023 the FCC rules prohibit, and Qwest is required to offer the lowest cost, most
1024 technically efficient cross-connect architecture possible. This requirement of
1025 efficiency plainly goes hand in hand with the non-discrimination requirement in
1026 that both requirements are designed to ensure that Qwest treats its wholesale

1027 customers/retail competitors on the same terms and conditions to promote, to the
1028 maximum extent possible, a level competitive playing field.

1029 **Q. CAN YOU PROVIDE AN EXAMPLE OF WHAT YOU MEAN WHEN**
1030 **TALKING ABOUT EFFICIENCY IN DESIGN?**

1031 **A.** Sure. At the Minneapolis Downtown Central Office, the partner (another CLEC)
1032 that Covad was required to use for much of our transport was collocated on the 4th
1033 floor. Upon applying for our collocation space, I was shown space on the 5th floor,
1034 even though space was still available on the 4th floor where Covad's partner was
1035 collocated. When I asked to be collocated on the 4th floor so that Covad would be
1036 able to connect to its partner's collocation more efficiently, Qwest denied my
1037 request stating that it had been decided that all future collocations would be on the
1038 5th floor. No other explanation was offered. The DS3 transport circuits between
1039 the Covad collocation and our partner's collocation all required regeneration.
1040 Although Covad has since replaced these circuits with Qwest UNE transport
1041 circuits, should the need ever arise again to use transport circuits provided by a
1042 CLEC partner collocated on the 4th floor, regeneration would again be required. It
1043 is Qwest's position that the CLEC should assume the costs associated with
1044 purchasing transport circuits from their tariff which would significantly increase
1045 our cost of providing competitive service. This is a totally unreasonable
1046 expectation based upon Qwest's inefficient use of central office space. If Qwest
1047 had no other options with respect to providing collocation space, which resulted in
1048 the need to provide regeneration between collocation arrangements, then it may be
1049 appropriate for Qwest to charge CLECs for regeneration. However, from my

1050 observations in handling most of the collocation build outs for Covad in the Qwest
1051 region, this situation would be the exception rather than the rule.
1052
1053 **Q. DO YOU HAVE SIMILAR CONCERNS WITH CENTRAL OFFICES IN**
1054 **ARIZONA?**
1055 **A.** Yes. A similar situation may develop in central offices in the Arizona market
1056 where Covad may be required to collocate equipment on different floors. Phoenix
1057 Main and Scottsdale Main are two very large Qwest central offices in which this
1058 may soon become an issue for C and other CLECs. As space becomes less
1059 available, the probability of having multiple floor collocations becomes greater.
1060 And with the changing competitive and regulatory environment, the need to
1061 connect collocations within the same central office will also increase.
1062 The net result in this scenario is that, rather than being able to buy a
1063 wholesale product at a cost-based TELRIC rate, Covad would have to purchase a
1064 much more expensive tariffed service that would greatly increase its cost of
1065 doing business to its detriment and the detriment of its customers to whom the
1066 excessive tariffed costs might flow.
1067 **Q. QWEST HAS STATED THAT CLECS CAN PERFORM ANY NEEDED**
1068 **REGENERATION FROM THEIR COLLOCATION ARRANGEMENTS.**
1069 **DO YOU AGREE?**
1070 **A.** No. The most efficient placement of the regeneration equipment would be mid
1071 span, or at a point about half way between the two collocations. When a signal
1072 leaves a carrier' s equipment, it is already being transmitted at optimum signal
1073 strength per ANSI T1.102. By using mid point regeneration, the signal strength

1074 remains much more constant and remains within the ANSI limits, which
1075 enhances the capability of maintaining the integrity of the data being transmitted
1076 on the circuit. The less deviation from the optimum signal level the better the
1077 circuit quality. Just as one may be able to holler from their front steps to the
1078 neighbor, the communication will become much more clear and effective if you
1079 were to walk to the fence and speak to the neighbor with a normal voice. This
1080 fundamental physical principal underlies the ANSI standards.

1081 While there may be a few isolated situations where signal strength can be
1082 adjusted at the end points to make a circuit work, there is no way to do this on a
1083 regular basis and still meet the specifications of the ANSI standard I discussed
1084 earlier. Not only does the ANSI standard contain cable and distance standards, it
1085 also contains power standards which cannot be exceeded without causing harm to
1086 adjacent circuits.

1087 **Q. WHAT KIND OF HARM ARE YOU TALKING ABOUT?**

1088 A. What I mean is that the CLEC-regenerated signal would cause digital cross-talk
1089 and lead to spectrum interference with the signals being transmitted over all
1090 adjacent transmission cables using the same cable racking, such that the signals
1091 transmitted by other carriers are completely " scrambled." In other words, the
1092 Covad-regenerated signal would disrupt the communications network of those
1093 carriers, which may also include Qwest. Just as there are specifications
1094 requiring regeneration over certain cable lengths, there are also specifications
1095 around how high a signal level can be transmitted in order to maintain the
1096 integrity of the network.

1097 **Q. HOW COULD A CLEC PERFORM ITS OWN MID SPAN**
1098 **REGENERATION?**

1099 A. It is not possible for a CLEC to provide mid-span regeneration. In the first place,
1100 it would require the construction of an entirely new collocation space and the
1101 placement of regeneration equipment. In other words, it would cost a CLEC at
1102 least *** **BEGIN CONFIDENTIAL** [redacted] **END CONFIDENTIAL** *** in
1103 collocation costs to be able to provide mid-span regeneration and take up to 130
1104 days before such capability would be available. The time and cost associated with
1105 regeneration of one, single cross-connect makes it utterly infeasible. No carrier,
1106 Qwest or CLEC, can afford to waste time and capital in such a fashion.

1107 Further, it is unclear to me whether a CLEC actually could provide mid-
1108 span regeneration. Based on my years of experience in Qwest central offices, the
1109 mid-span point could fall in a location in the central office to which CLECs do not
1110 have access (i.e., a switching equipment room or an MDF or COSMIC frame). In
1111 this case, even if a CLEC were inclined to do so, it would be precluded from
1112 providing its own mid-span regeneration.

1113 **Q. ISN'T IT TRUE THAT QWEST'S POSITION IN THE ARBITRATION IS**
1114 **DIRECTLY CONTRADICTORY TO ITS PRIOR, LONGSTANDING**
1115 **POSITION ON REGENERATION?**

1116 **A.** Yes, it is. At the first arbitration hearing in Colorado, Qwest explained that
1117 Qwest considers a CLEC-to-CLEC cross connect a wholesale product <u>unless</u> that
1118 cross connect requires regeneration. In that case, Qwest supposedly will provide
1119 a retail regeneration product, available under its access tariff, to provide the
1120 connection.

1121 However, this position is entirely inconsistent with Qwest's prior positions
1122 and statements regarding regeneration. Not once prior to the Colorado arbitration
1123 did Qwest ever argue that any central office regeneration product provided to
1124 CLECs should be considered a finished service, or that Qwest had no obligation to
1125 provide regeneration, where necessary, under the Act. In fact, two years ago when
1126 it first addressed this issue, in response to a Change Request ("CR") submitted by
1127 Eschelon, Qwest provided detailed clarification of its CLEC-to-CLEC cross
1128 connection product, labeled COCC-X, and stated that the CLEC to CLEC cross-
1129 connect can and did include regeneration:

> 1130 The CLEC-to-CLEC Cross-Connection (COCC-X)
> 1131 offering is defined as the CLEC's capability to order a
> 1132 cross-connection from its Collocation in a Qwest Premises
> 1133 to its non-adjacent Collocation space or to another CLEC's
> 1134 Collocation within the same Qwest Premises at the
> 1135 Interconnection Distribution Frame (ICDF).
>
> 1136 ...
>
> 1137 Given the possibility that total cable lengths from the
> 1138 Collocation spaces through the ICDF are longer than the
> 1139 [ANSI Standards] table allows, there is the opportunity for
> 1140 a CLEC to request regeneration by using a specific
> 1141 Network Channel Interface (NCI) code on their order.
> 1142 The NCI is chosen from Table 6-5 of Tech Pub 77386
> 1143 using one that calls for regeneration.
>
> 1144 ...
>
> 1145 Qwest, following receipt of the ASR will perform ICDF
> 1146 connections and regeneration functions. Equipment
> 1147 additions for regeneration (if no spares are available) will
> 1148 be initiated. Qwest completes these activities and conducts
> 1149 verification testing.

1150 Exhibit MZ-6 at pages 4 and 5.

1151 In addition to the response above, in June of 2003, Qwest proposed
1152 "updates" to Tech Pub 77386, including the deletion of the Chapter 15,
1153 addressing regeneration for interconnection. When Eschelon raised concerns
1154 that deletion of this chapter would eliminate the wholesale regeneration product,
1155 Qwest replied:

> Qwest is not eliminating DSX regeneration, but merely changing who is responsible for determining when regeneration is required. The changes in the Tech Pub were driven by this recent change in who is responsible for determining when regeneration is required. More specifically, **the CLEC's are no longer responsible for determining if regeneration is required, Qwest is now responsible for that determination. As a result of this change in responsibility, the tech pub is being updated to remove all statements and NC/NCI codes that indicate that the CLEC's need to order regeneration, or are responsible for determining when regeneration is required.**

Exhibit MZ-7.

Q. YOU STATED THAT QWEST'S POSITION IN THIS ARBITRATION IS THAT CLEC TO CLEC TIES REQUIRING REGENERATION MUST BE ORDERED AS A FINISHED SERVICE FROM THE TARIFF. DID QWEST TAKE THIS POSITION DURING NEGOTIATIONS PRIOR TO FILING FOR ARBITRATION?

A. I have to reiterate that the answer to that question is emphatically "No." In fact, Qwest never once mentioned during the 18 months of negotiations that CLEC to CLEC regeneration was only ordered and provided as a finished service. As I alluded to in my earlier testimony, Qwest first proffered this position in the prefiled Direct Testimony of Qwest witness Michael Norman in the Colorado Arbitration. Until that time, it was my belief that the dispute involved whether or not Covad would be required to pay the SGAT/TELRIC based rates for regeneration versus the tariff rates.

Q. PLEASE SUMMARIZE COVAD'S POSITION ON THE PRICING OF CLEC TO CLEC CROSS CONNECT REGENERATION.

1185 A. Covad's request in this arbitration is that both forms of regeneration should be
1186 priced and treated the same: if Qwest does not charge for regeneration in the
1187 context of providing access to network elements (required by the Act and FCC
1188 rules), it also should not charge for regeneration in the context of providing CLEC
1189 to CLEC cross-connections, which are also required by the Act and FCC rules.
1190 There is no justification for treating the two situations differently, and there is
1191 certainly no justification for the retail pricing of CLEC to CLEC regeneration that
1192 Qwest is now proposing.
1193
1194 **Q. HAS THE FCC CONSIDERED THE COMPETITIVE EFFECTS OF ILEC**
1195 **POLICIES AND PRICING REGARDING CLEC-TO-CLEC CROSS-**
1196 **CONNECTS?**
1197 A. Yes. In ruling that ILECs were required to provide central office cross-connects
1198 between CLECs, despite the fact that ILECs were not required to allow CLECs to
1199 *self-provision* these cross-connects, the FCC said that:

1200 > if an incumbent LEC refuses to provision cross-connects
1201 > between competitive LECs collocated at the incumbent's
1202 > premises, the incumbent would be the only LEC that could
1203 > interconnect with all or even any of the competitive LECs
1204 > collocated at a common, centralized point – the central
1205 > office.[9]

1206 The FCC went on to explain that this would have a negative effect on the
1207 availability of competitive transport options for CLECs,[10] and that allowing central
1208 office cross-connects between CLECs is essential to the development of a
1209 competitive market for transport services.[11]

---

[9] *Fourth Report and Order,* ¶ 63.
[10] *Id.*
[11] *Id.,* ¶ 65.

1210 Even if CLECs have the option to self-provision a cross-connect
1211 (something the ILECs opposed at the time the Fourth Report and Order was
1212 written), ILECs must allow these cross-connections on non-discriminatory terms.
1213 If they do not, they create the exact competitive problems the FCC intended to
1214 solve in the Fourth Report and Order. For instance, if the cross-connect can only
1215 be accomplished in a way that is cost-prohibitive, while cross-connection to Qwest
1216 is readily available at reasonable rates, Qwest has an unfair pricing advantage over
1217 its competitors in the wholesale transport market, as well as other markets, and
1218 carriers are more likely to purchase Qwest's services.

1219 I'll provide an example: suppose Covad had the option of aggressively
1220 partnering with a voice CLEC to jointly provide a data and voice bundle to
1221 customers. At the same time, Covad could partner with Qwest to provide a similar
1222 bundled service through a commercial agreement. If a CLEC-to-CLEC cross-
1223 connect is available only at inflated Qwest retail rates, Qwest would be the only
1224 viable partner.

1225 **Q. IS THERE ANYTHING IN ANY OF THE DOCUMENTATION**
1226 **AVAILABLE TO CLECS THAT WOULD SUGGEST THAT CLEC TO**
1227 **CLEC REGENERATION IS ONLY AVAILABLE AS A FINISHED**
1228 **SERVICE?**

1229 A. Not at all. To the contrary, all of the documentation very clearly demonstrates
1230 that, until the Colorado arbitration, Qwest very clearly was providing CLEC to
1231 CLEC regeneration as a UNE at TELRIC prices.

1232 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

1233 **A.** This concludes my Direct Testimony, however, I anticipate filing all Reply
1234 Testimony permitted by the Commission, and being presented for cross
1235 examination at the hearing on the merits.

CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of **DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY'S DIRECT TESTIMONY OF MICHAEL ZULEVIC** was mailed by U.S. Mail, postage prepaid, and electronically mailed this 20th day of December, 2004 to the following:

Winslow B. Waxter
Qwest Services Corp.
1005 17th Street, Suite 200
Denver, CO 80209
Email: winslow.waxter@qwest.com

Norman G. Curtright
Corporate Counsel
Qwest Corporation
1801 California, Suite 4900
Denver, CO 80202-1984
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John M. Devaney
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PERKINS COIE LLP
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Washington, D.C. 20005-2011
Email: mhughes@perkinscoie.com
jdevaney@perkinscoie.com

Contract No.

QWEST DSL VOLUME PLAN AGREEMENT

This Qwest DSL Volume Plan Agreement ("Agreement") is by and between ("Customer") and Qwest Corporation ("Qwest") for participation in the Qwest DSL Volume Plan ("Volume Plan"). This Agreement may refer to Customer and Qwest individually as a "Party," and collectively, as "Parties."

1. SCOPE AND DESCRIPTION OF SERVICE.

1.1 Qwest shall provide the Volume Plan to Customer in accordance with the terms and conditions of this Agreement and Qwest's FCC1 Access Service Tariff ("Tariff"), which is incorporated herein by this reference. Qwest shall provide Qwest DSL Service ("Service") to Customer, including Qwest DSL lines. The Service will allow Customer to offer high-speed, Internet access to Customer's ISP customers and other end users (individually an "End User," and collectively, "End Users") using Qwest as the underlying DSL provider. Customer shall comply with the Tariff and be responsible for all aspects of End User acquisition (marketing, and loop qualification, etc.), ordering, fulfillment, and End-User management (End-User billing, trouble reporting, and repair calls, etc.).

1.2 By participating in the Volume Plan, Customer will receive volume discounts based on the number of active and billable Qwest DSL lines.

1.3 Both Parties agree that Customer shall be considered the consumer of any products and services sold by Qwest under this Agreement, and that this Agreement is not subject to any resale discounts.

2. TERM.

2.1 This Agreement shall commence on the date on which it is executed by Qwest following Customer's execution of this Agreement ("Effective Date"), and it expires on the third anniversary of the "Enrollment Date," which is the date on which Customer's first order is completed by Qwest within Qwest's standard delivery interval ("Term"). The date on which the necessary circuits and systems are installed, tested, and operational to allow Customer to place DSL orders with Qwest electronically shall be called the "Operational Date." The "necessary circuits and systems" means the installation of at least one DSL Host service location and the required circuits and interfaces to complete loop qualifications and issue orders through a Qwest-specified ordering tool.

2.2 The twelve (12) month period to reach the first volume tier will begin on the Enrollment Date. Qwest agrees to use commercially reasonable efforts to meet an Operational Date of , assuming that Customer completes and submits to Qwest both the Customer Profile (as defined in Subsection 5.4) and the VISP Quarterly Forecast (as defined in Subsection 5.3), within ten (10) business days of the Effective Date. If Qwest becomes aware that it will not meet the Operational Date for any reason, including Customer's failure to deliver the Customer Profile or the VISP Quarterly Forecast as required, it will notify Customer in writing of a new projected Operational Date. Customer shall place its first order within thirty (30) days of the Operational Date. If Customer fails to place such an order, the thirty-first (31st) day subsequent to the Operational Date shall be the Enrollment Date. If Qwest fails to complete within its standard delivery interval a first order placed within thirty (30) days of the Operational Date, a new Operational Date shall be established by Qwest, and Customer shall place its next order within thirty (30) days of this new Operational Date. This process shall be repeated until the Enrollment Date is set. Once the Enrollment Date is established, the Parties shall issue an Amendment to this Agreement to document the Enrollment Date.

2.3 If Customer wishes to continue to participate in the Volume Plan after the Term, a new agreement with Qwest must be executed.

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3. CHARGES AND BILLING.

3.1 Exhibit 1, incorporated herein by this reference, lists the standard Qwest DSL Subscriber pricing (pre-tax) as well as the volume discount options Customer may receive based on the number of DSL lines Customer orders and installs. Customer will be eligible for only one of the discount plans, and Customer shall select the discount plan by checking the appropriate box below. The discounts will apply only to the monthly recurring charge ("MRC"), and will not apply to any nonrecurring charge ("NRC"). Customer is not eligible to participate in any DSL regulated promotions during the Term. During the first twelve (12) months following the Enrollment Date, Customer agrees to order and install the number of active, billable, Qwest DSL lines required by its discount plan selection below. Additional commitments may apply as provided in Exhibit 1, depending on the discount plan.

☐ Basic Discount Option (15,000 Qwest DSL lines)
☐ Volume Commitment Option I ([1] Qwest DSL lines X 25% =)

3.2 In addition to such MRCs and NRCs, Customer is responsible for all Taxes assessed in connection with the Volume Plan and the Service. "Taxes" means any and all applicable foreign, federal, state and local taxes, including without limitation, all use, sales, value-added, surcharges, excise, franchise, commercial, gross receipts, license, privilege or other similar taxes, levies, surcharges, duties, fees, or other tax-related surcharges, whether charged to or against Qwest or Customer, with respect to the Volume Plan and the Service, but excluding any taxes based on Qwest's net income. Qwest will not charge Customer for Taxes if Customer provides appropriate tax exemption certificates to Qwest. Customer will indemnify and pay Qwest for any tax assessment, penalties, and interest if any exemption certificate provided to Qwest by Customer is found invalid by a tax jurisdiction.

3.3 Customer shall pay each invoice within thirty (30) days of its receipt of the invoice. Late payments are subject to a late charge as specified by the Tariff, and if there is no such rate specified therein, the late charge shall be equal to one and one half percent (1½%) per month or the maximum allowed by law, whichever is less. The Volume Plan does not include customer premises equipment ("CPE"), and all prices for Service under this Agreement will be offered and charged to Customer independently from and regardless of Customer's purchase of any CPE or other services from Qwest. Customer's payment obligations are not contingent upon Customer's ability to collect payments or charges from any third party (including, without limitation, any End Users, affiliates, agents, brokers, or resellers).

3.4 Qwest reserves the right to modify the rates and charges, and change the Volume Plan, however, any percentage discount available to Customer under the Volume Plan may not be modified during the Term except as specifically provided herein. The rates and charges contained herein may change as required by the Tariff.

4. SERVICE CHANGES.

4.1 Customer may request additions/deletions to the Volume Plan or Service, and Qwest may supply such additions/deletions to Customer, subject to the following conditions: a) Qwest commercially offers such additions/deletions and necessary facilities are technically and practicably available; and b) the charges for the additions/deletions will be at the rates in effect for the Volume Plan at the time of such additions/deletions and which correspond to the remaining portion of the Term.

4.2 An additional NRC applies when Customer changes a Qwest DSL Host port speed after Qwest DSL Host service is established, or when Customer requests a change in speed for an End User. The charges for these changes will be the then-current Tariff rates at the time the change is made. Current Tariff rates are shown in Exhibit 1.

---

[1] Minimum 60,000 DSL lines.

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5. **CUSTOMER OBLIGATIONS.**

5.1 It will be the sole responsibility of Customer to market, advertise and promote its product to potential End Users. Qwest will have no direct business contact with any End Users, except as stated in Subsection 5.15. Customer may represent the DSL lines as its own, and brand the service accordingly.

5.2 Customer will establish 'Restricted' Qwest DSL Host Service in all LATAs where Customer wishes to purchase Qwest DSL lines as defined in the Tariff. A 'Restricted' Qwest DSL Host customer is one that is responsible for placement of all of its own end-user orders and is not available for selection as a host by a public end user.

5.3 Customer shall provide Qwest a quarterly DSL line forecast by state, city, and month on a twelve (12) month rolling basis ("VISP Quarterly Forecast").

5.4 Customer shall complete and return to Qwest the customer profile form provided by Qwest to Customer ("Customer Profile").

5.5 Customer will receive qualified loop data electronically. Customer may perform real-time loop qualifications for individual End Users.

5.6 Customer will submit orders for Qwest DSL lines electronically. The customer of record for the Service will be Customer. The customer of record for the voice line will be the End User.

5.7 Customer shall provide to End Users CPE qualified by Qwest to work with the Qwest DSL network. Upon request, Qwest will provide to Customer a list of qualified CPE.

5.8 Qwest agrees to perform CPE qualification testing for Customer on one modem model at no charge. Customer shall pay Qwest Fifteen Thousand U.S. Dollars ($15,000.00) for each additional modem model/version qualification testing requested by Customer. This charge is payable prior to qualification testing and it will not be refunded regardless of the outcome of the test.

5.9 Customer shall be responsible for providing technical support to the End User after the Qwest DSL line has been installed. Technical support shall mean providing general product information, collecting technical problem information, screening customer support requests, problem isolation, configuration support, and defect determination. Customer will show a continuing and resolute effort to direct End Users to call only Customer's designated, support centers. Failure to make such an effort shall constitute a material breach of this Agreement. Qwest's responsibility is to support Customer as provided in Section 6, and therefore, Qwest will direct any and all End-User calls placed to a Qwest DSL support center back to Customer's designated, support centers.

5.10 Customer will be responsible for billing its End Users for Service. End Users will contact Customer for all billing questions or disputes related to Service.

5.11 Customer will designate a point of contact(s) other than Qwest for use by End Users for all troubleshooting and repair issues related to Service.

5.12 Subject to Subsection 5.13, Customer agrees to use the standard Qwest Business-to-Business electronic user interface. Customer shall access such Graphical User Interface ("GUI") via its Web browser and the Internet. Customer may use this interface for, among other things: ordering, billing, loop qualification, and repair ticketing. The GUI is provided as the basic, transaction method for Volume Plan customers, and thus, no charges, except for any applicable termination charges, apply for use of this interface.

5.13 Customer may choose an Extensible Markup Language ("XML") electronic interface instead of the GUI. The XML interface includes multiple transaction Application Plan Interface ("API") gateways

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associated with ordering, billing, loop qualification and repair ticketing. Qwest will provide Customer detailed specifications for these API gateways upon request. Customer is responsible for developing its interface to the API gateways prior to launch. Customers who choose the XML Interface Option will incur the following charges: (a) A one-time, setup fee of Three Hundred Fifty Thousand U.S. Dollars ($350,000.00) (which includes documentation, training, and two rounds of end-to-end testing); and (b) A fee of Twenty-Five Thousand U.S. Dollars ($25,000.00) for each additional end-to-end test (if additional testing is requested or required by Qwest).

5.14 If Customer requires services not included in the Volume Plan and Qwest agrees to supply such services, the Parties shall prepare and execute a written amendment to this Agreement, describing such services and all applicable terms and conditions, including pricing.

5.15 Customer will submit repair tickets for Qwest DSL lines electronically. Customer shall allow Qwest technicians to contact Customers' end users if Qwest deems it necessary for purposes of troubleshooting a Customer-initiated, repair request.

5.16 Customer's use of the Service and participation in the Volume Plan shall comply in all material respects with all applicable foreign, federal, state or local laws or regulations, including obtaining any applicable licenses, approvals, and regulatory authority for its use of the Service. Customer agrees to defend, indemnify and hold harmless Qwest, its affiliates, and contractors from any and all third party claims, liabilities, costs and expenses, including reasonable attorneys' fees, arising from or related to use, resale or modification of Service by Customer or End Users.

6. QWEST OBLIGATIONS.

6.1 Qwest will provide Customer qualified loop data and the capability to perform real-time loop qualifications for individual End Users.

6.2 Qwest will process orders submitted by Customer in Qwest's prevailing, standard, delivery interval, which is five (5) business days currently. If Customer submits a valid, qualified order for Service in a service area in which Qwest offers Service under this Agreement, and for reasons other than the fault of Customer the order is either (a) not accepted into Qwest's system, or (b) accepted, but not processed within Qwest's prevailing, standard, delivery interval, then Customer will receive credit for such order towards Customer's volume commitments hereunder, as if such order were an active, billable port.

6.3 Qwest will provision Service for Customer on the End User's voice line only when the End User has a Qwest-provided voice line that qualifies for Service.

6.4 Qwest will provide Customer the ability to monitor the status of orders Customer has placed. Qwest will not provide order status to the End User. Qwest will also supply access to basic Qwest proprietary systems related to Qwest DSL line diagnostics as available in certain Qwest central offices, including access to network diagnostic data. Although Qwest will not charge for access to the systems and services described in this Section at present, Qwest reserves the right to charge for access to these systems and services in the future, including any enhancements thereto. Customer will purchase all necessary interconnection/transport services associated with connecting to Qwest's systems.

6.5 Qwest will bill Customer for all Qwest DSL lines that Customer has ordered, which are installed and operational. The bill provided to Customer will include the total number of subscribers, the telephone number of each subscriber, the Service price for each telephone number, and the discount awarded to Customer (based on the number of Qwest DSL lines Customer has installed and the discount program selected).

6.6 If Customer has a good-faith dispute concerning its bill, Customer will notify Qwest of its concerns, and Qwest will provide Customer with appropriate information to explain and/or justify the bill.

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6.7 Qwest will repair Service at the End User's location if it is determined that problems with the End User's Service are the responsibility of Qwest. If Qwest determines that the trouble at the End User's location was not Qwest's responsibility, Customer will be billed for all costs incurred by Qwest.

7. **JOINT OBLIGATIONS.** Qwest and Customer will confer as reasonably necessary to track and analyze key DSL metrics, ensuring timely provisioning and maintenance with respect to Customer's purchase of Service as well as Customer's progress toward meeting subscriber commitments.

8. **TERMINATION.**

8.1 Qwest may (a) immediately suspend all or any part of the Service, and/or (b) terminate this Agreement (effective after the applicable notice period): (i) for Cause (as defined herein); or (ii) upon written notice if Customer becomes or is declared insolvent or bankrupt or is the subject of any proceedings related to its liquidation, insolvency or for the appointment of a receiver or similar officer for it. "Cause" means the failure of a Party to perform a material obligation under this Agreement which failure is not remedied, if curable: (a) in the event of a payment default by Customer, upon five (5) calendar days written notice, or (b) in the event of any other general default, upon thirty (30) calendar days, written notice to the other Party. Customer may terminate this Agreement for Cause. If Customer terminates this Agreement for Cause prior to the conclusion of the Term, then Customer shall remain liable for charges accrued but unpaid as of the termination date. If, prior to the conclusion of the Term, this Agreement is terminated, in whole or in part, either: (a) by Customer for any reason other than Cause, or (b) by Qwest pursuant to this Subsection, then Customer shall pay for all accrued and unpaid charges for Services provided through the effective date of such termination plus the cancellation charges, termination liabilities, and rate adjustments described in Section 8.

8.2 If termination of this Agreement occurs prior to Customer ordering and Qwest accepting one hundred (100) orders and during the first (60) days following the Enrollment Date, cancellation charges shall be those reasonable costs incurred by Qwest through the date of termination, plus any other cancellation charges described herein.

8.3 If Customer selects the Basic Discount Option, it shall comply with the Basic Discount Option DSL line commitment described in Section 1 of Exhibit 1. If Customer fails to meet this commitment, Qwest shall have the right to terminate Customer's participation in the Volume Plan, and Customer shall pay to Qwest 100% of the total accumulated discount credited to Customer for the year at issue plus a ten percent (10%) surcharge on such discount. Such termination charge is due and payable within thirty (30) days of the invoice date. Such termination of participation in the Volume Plan shall not result in the disconnection of Service to End Users.

8.4 If Customer selects the Volume Commitment Option I, it shall comply with the Volume Commitment Option 1 DSL line commitment described in Section 2 of Exhibit 1. If Customer fails to meet this commitment, Qwest shall adjust Customer's enrollment in the Volume Plan and the discounts granted Customer, as follows: (a) Customer will be placed into the Basic Discount Option and will be subject to its terms, including the requirement to have a minimum of 15,000 active and billable Qwest DSL lines by the end of the twelve (12) month period commencing on the Enrollment Date; (b) the appropriate discount from the Volume Plan Discount Table will be applied prospectively to the actual active or billing DSL lines; and (c) Customer shall pay to Qwest 100% of the total accumulated discount credited for the year at issue plus a 10% surcharge on such discounts. Such termination charge is due and payable within thirty (30) days of the invoice date. Such termination of participation in the Volume Plan shall not result in the disconnection of Service to End Users.

8.5 In the event Customer has selected the GUI option and fails to have a minimum of 15,000 active and billable DSL lines by the end of the twelve (12) month period commencing on the Enrollment Date, Customer shall pay to Qwest an additional sum of up to One Hundred Thousand U.S. Dollars ($100,000.00) ("Total GUI Charge") which both Qwest and Customer agree reasonably reflects Qwest's expense to create the GUI for Customer. Customer shall pay the following percentage of the Total GUI

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Charge to Qwest as determined by Customer's number of active and billable DSL lines as of the end of the twelve (12) month period commencing on the Enrollment Date: (a) More than 12,000 DSL lines, but fewer than 15,000 DSL lines, forty percent (40%); (b) More than 8,000 DSL lines, but fewer than 12,001, eighty percent (80%); and (c) Fewer than 8,001 DSL lines, one hundred percent (100%). Such amount is due and payable within thirty (30) days of the invoice date.

9. **LIMITATION OF LIABILITY.** EXCEPT FOR CUSTOMER'S PAYMENT AND INDEMNIFICATION OBLIGATIONS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY, ITS AFFILIATES OR CONTRACTORS SHALL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OR FOR ANY LOST OR IMPUTED PROFITS OR REVENUES OR LOST DATA OR COSTS OF COVER ARISING FROM OR RELATED TO THE SERVICES OR THIS AGREEMENT, REGARDLESS OF THE LEGAL THEORY UNDER WHICH SUCH LIABILITY IS ASSERTED AND REGARDLESS OF WHETHER A PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH LIABILITY, LOSS, OR DAMAGE. CUSTOMER'S EXCLUSIVE REMEDIES FOR ANY AND ALL CLAIMS RELATED TO THE SERVICE SHALL BE LIMITED TO: (A) THOSE REMEDIES SET FORTH IN THE APPLICABLE OUT-OF-SERVICE CREDIT; OR (B) IF THERE IS NO SUCH APPLICABLE CREDIT, THE TOTAL MRC PAID BY CUSTOMER TO QWEST FOR THE AFFECTED SERVICE IN THE MONTH IMMEDIATELY PRECEDING THE OCCURRENCE OF THE EVENT GIVING RISE TO THE CLAIM. QWEST'S TOTAL AGGREGATE LIABILITY ARISING FROM OR RELATED TO THIS AGREEMENT SHALL NOT EXCEED THE TOTAL MRCS PAID BY CUSTOMER TO QWEST PURSUANT TO THIS AGREEMENT IN THE MONTH IMMEDIATELY PRECEDING THE OCCURRENCE OF THE EVENT GIVING RISE TO THE CLAIM.

10. **DISCLAIMER OF WARRANTIES.** QWEST MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO ANY SERVICE PROVISIONED HEREUNDER. QWEST SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR TITLE, OR NONINFRINGEMENT OF THIRD-PARTY RIGHTS. NO ADVICE OR INFORMATION GIVEN BY QWEST, ITS AFFILIATES OR ITS CONTRACTORS OR THEIR RESPECTIVE EMPLOYEES SHALL CREATE ANY WARRANTY.

11. **FORCE MAJEURE.** Neither Party will be liable for any delay or failure to perform its obligations hereunder if such delay or failure is caused by an unforeseeable event (other than a failure to comply with payment obligations) beyond the reasonable control of a Party, including without limitation: act of God; fire; flood; labor strikes or unrest; sabotage; fiber cut; material shortages or unavailability or other delay in delivery not resulting from the responsible Party's failure to timely place orders therefor; lack of or delay in transportation; government codes, ordinances, laws, rules, regulations or restrictions; war or civil disorder; or acts of terrorism.

12. **DISPUTE RESOLUTION.** Any dispute arising out of, or relating to, this Agreement which cannot be resolved by the Parties will be settled by arbitration, which will be conducted in accordance with the Judicial Arbitration and Mediation Services ("JAMS") Comprehensive Arbitration Rules. The Federal Arbitration Act, 9 U.S.C. Sections 1-16, not state law, shall govern the arbitrability of the dispute. Either Party may initiate arbitration by providing to JAMS a written demand for arbitration (with a copy to the other Party), a copy of this Agreement and the administrative fee required by JAMS. The written demand for arbitration shall be sufficiently detailed to permit the other Party to understand the claim(s) and identify witnesses and relevant documents. Except for the administrative fees in commencing the arbitration, or filing any counterclaims, the costs of the arbitration, including arbitrator's fees, shall be shared equally by the Parties; provided, however, that each Party shall bear the cost of preparing and presenting its own claims and/or defenses (including its own attorneys' fees). The arbitration will be held in Denver, Colorado. The arbitrator has no authority to award any indirect, incidental, special, punitive, or consequential damages, including damages for lost profits. The arbitrator's decision shall follow the plain meaning of this Agreement and shall be final, binding, and enforceable in a court of competent jurisdiction. If either Party fails to comply with the dispute resolution process set forth herein (including, without limitation, nonpayment of an arbitration award) and a Party is required to resort to court

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proceedings to enforce such compliance, then the noncomplying Party shall reimburse all of the costs and expenses incurred by the Party requesting such enforcement (including reasonable attorneys' fees).

13. **CONFIDENTIALITY.** Neither Party shall, without the prior written consent of the other Party, disclose or use (except as expressly permitted by, or required to achieve the purposes of, this Agreement) the Confidential Information of the other Party, during the Term and for one (1) year following the expiration or termination hereof. Such consent by Qwest may be given only by Qwest's Corporate Legal Department and any purported consent by any other person, including any Qwest sales or customer service representative, is void and of no effect. "Confidential Information" means written or electronic information that is either: (a) marked as confidential and/or proprietary, or which is accompanied by written notice that such information is confidential/proprietary, or (b) not marked or accompanied by notice that it is confidential/proprietary, but which, if disclosed to any third party, could reasonably and foreseeably cause competitive harm to the owner of such information. Confidential Information shall not include information which, as demonstrated by the receiving Party: (a) is in the public domain or otherwise ceases to be secret or confidential through no breach of this Agreement by the receiving Party; (b) is already known or is developed independently by the receiving Party independent of any disclosure by the disclosing Party; or (c) is revealed to recipient by a third party who does not thereby breach any obligation of confidentiality and who discloses such information in good faith. Confidential Information shall include, but not be limited to, the terms (including pricing) and existence of this Agreement; provided, however, that either Party may disclose the existence of this Agreement (but none of its terms) as may be reasonably necessary for such Party to conduct its business. Each Party will take reasonable precautions to protect the other Party's Confidential Information, using at least the same standard of care as it uses to maintain the confidentiality of its own confidential information. The receiving Party may disclose Confidential Information if required by a governmental agency, by operation of law, or if necessary in any proceeding to establish rights or obligations under this Agreement, provided that the receiving Party gives the disclosing Party reasonable prior written notice sufficient to permit the disclosing Party an opportunity to contest such disclosure.

14. **INTERRUPTIONS TO SERVICE.** The Tariff shall govern any credit allowances granted to Customer for any Service interruptions.

15. **PUBLICITY.** Neither Party shall, without the prior written consent of the other Party: (a) issue any press release or make any other public announcement regarding this Agreement or any relation between Customer and Qwest; or (b) use the name, trademarks or other proprietary identifying symbol of the other Party or its affiliates. Such consent by Qwest may be given only by Qwest's Corporate Communications Department and any purported consent by any other person, including any Qwest sales or customer-service representative, is void and of no effect.

16. **GENERAL PROVISIONS.**

16.1 This Agreement shall be governed by the laws of the State of New York, without regard to its choice of law principles.

16.2 If any provision of this Agreement is held to be unenforceable, the unenforceable provision shall be construed as nearly as possible to reflect the original intent of the Parties and the remaining provisions shall remain in full force and effect.

16.3 Neither Party's failure to insist upon strict performance of any provision of this Agreement shall be construed as a waiver of any of its rights hereunder. All terms and provisions of this Agreement which should by their nature survive the termination of this Agreement shall so survive.

16.4 This is a retail marketing agreement. Customer may not assign this Agreement or any of its rights or obligations hereunder without the prior written consent of Qwest, which consent will not be withheld unreasonably.

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16.5 The terms, representations, warranties and agreements of the Parties set forth in this Agreement are not intended for, nor shall they be for the benefit of or enforceable by, any person or entity that is not a Party.

16.6 Except as otherwise provided herein, all required notices shall be in writing, transmitted to the Parties' addresses specified in the signature page, Qwest's Customer billing address, or such other addresses as may be specified by written notice, and will be considered given either: (a) when delivered in person to the recipient named on the signature page; (b) when deposited in either registered or certified U.S. Mail, return receipt requested, postage prepaid; or (c) when delivered to an overnight courier service.

16.7 If a Party returns this Agreement by facsimile machine, the signing Party intends the copy of the authorized signature printed by the receiving facsimile machine to be its original signature.

16.8 If there is any conflict between this Agreement and the Tariff or its replacement, the then-current tariff shall prevail.

16.9 This Agreement (together with the signature page and Exhibit 1) constitutes one and the same legally binding instrument and the entire agreement between Customer and Qwest with respect to the subject matter hereof, and supersedes all prior offers, contracts, agreements, representations and understandings made to or with Customer by Qwest, whether oral or written, relating to the subject matter hereof. All amendments to this Agreement shall be in writing and signed by authorized representatives of the Parties. This Agreement does not address sales or services related to CPE. CPE is addressed in a separate agreement. Qwest may act in reliance upon any instruction, instrument, or signature reasonably believed by Qwest to be genuine. Customer agrees that any employee of Customer who gives any written notice or other instruction in connection with this Agreement has the authority to do so.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the Parties have read, understand and agree to all of the above terms and conditions of this Agreement, and hereby execute and authorize this Agreement as of the Qwest signature date below.

Customer	**Qwest Corporation**
Authorized Signature	Authorized Signature
Name Typed or Printed	Name Typed or Printed
Title	Title
Date	Date
Address for Notices	Address for Notices Qwest Corporation 1801 California Street, Suite 3800 Denver, Colorado 80202 Facsimile #: (303) 295-9973 Attn: Legal Department

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EXHIBIT 1
QWEST DSL VOLUME PLAN AGREEMENT

QWEST DSL Subscriber Pricing

Each Qwest DSL Subscriber must pay for his/her/its residential or business phone line.

The rates below ("Rates") are based on the month-to-month Qwest DSL Service rates as forth in Section 8.4.5 of the Qwest FCC1 Access Service Tariff ("Tariff"). The Rates may change without notice. If there is any conflict between this Exhibit 1 and the Tariff or its replacement, the then-current tariff shall prevail.

[redacted]	$99.00	$21.95
[redacted]	$99.00	$31.95
[redacted]	$30.00	
Professional Products		
[redacted]	$99.00	$55.00
[redacted]	$99.00	$66.00
[redacted]	$99.00	$88.00
[redacted]	$99.00	$165.00
[redacted]	$99.00	$275.00
[redacted]	$30.00	

One, three and five-year Tariff Contract Rates as defined in the Tariff are not eligible for discounts under the Qwest DSL Volume Plan.

NRCs are not subject to discount.

Volume Plan Discount Table

Total DSL Lines in Service (aggregated active ports)	Discount (applicable to all speeds and term plans) 36-Month Agreement
Up to 15,000	11% of the total monthly recurring bill
15,001 to 30,000	12% of the total monthly recurring bill
30,001 to 60,000	13% of the total monthly recurring bill
60,001 to 120,000	14% of the total monthly recurring bill
120,001 to 200,000	15% of the total monthly recurring bill
200,001 to 400,000	17% of the total monthly recurring bill

Customer must acquire 15,000 active billing ports or subscribers in the first 12 months.

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Customer is eligible for one of the following discount options:

1. Basic Discount Option (Discount based on achieved volume).

Customer(s) must commit to acquiring a minimum of Fifteen Thousand (15,000) active and billable Qwest DSL lines by the end of the 12th month of its 36-month Fixed Period Service Rate Plan ("Plan"). In exchange for this commitment, Customer shall be granted the applicable discount contained in the Volume Plan Discount Table provided herein. If Customer does not have a minimum of Fifteen Thousand (15,000) active and billable Qwest DSL lines by the end of the initial 12-month period, Qwest reserves the right to terminate Customer's participation in the Plan. Customer must maintain a minimum of Fifteen Thousand (15,000) active and billable Qwest DSL lines during the entire Term.

In the event Qwest terminates Customer's participation in the Basic Discount Option, any subsequent orders for Qwest DSL lines placed by Customer will be charged the then-current, month-to-month Tariff rates for the respective Qwest DSL Service requested.

2. Volume Commitment Option 1 (Discount based on committed volume).

Customer will commit to acquiring ( )[2] Qwest DSL lines over the Term of this Agreement (Thirty-Six (36) Months).

Qwest will grant Customer the discount for the committed volume as provided in the Volume Plan Discount Table. The discount will be applied to the total monthly recurring bill throughout the term of this Agreement.

Qwest will perform an annual review of the number of active billing Qwest DSL lines. Customer will acquire 25% of the total committed DSL lines by the end of the first twelve (12) months, 60% of the total DSL lines by the end of the first twenty-four (24) months, and 100% of the total DSL lines by the end of the term of this Agreement.

At the end of the first 12-month period, if Customer's DSL line volume is at a higher level than anticipated, Customer will be given the opportunity to receive a larger discount by choosing to commit to a higher volume tier than it did originally. In order to receive a larger discount, Customer's DSL line count must meet 25% of the higher commitment level within twelve (12) months from the election. Upon making the new volume commitment, the higher discount will be applied prospectively to the monthly DSL charges for current lines in service and all future lines installed, as long as Customer meets the active and billable DSL line thresholds for the new volume commitment.

[2] Minimum 60,000 DSL lines.

Notice
The information contained herein should not be disclosed to unauthorized persons.
It is meant for use by authorized representatives of Qwest and Customer only.

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DOC 01481

State Of Minnesota
Department of Commerce
INFORMATION REQUEST

P-5692,421/IC-04-549

Information Requested From: Qwest Corporation

Information Requested By: Ferguson, Sharon
Date Requested: 08/31/2004
Date Response Due: 09/10/2004

REQUEST:

As of June 30, 2004 or some other convenient date, how many of each of the following types of loops does Qwest have in Minnesota?

A. FTTH (Fiber to the home)

B. FTTP (Fiber to the premise)

C. FTTC (Fiber to the curb)

D. FTTN (Fiber to the neighborhood)

RESPONSE:

Qwest objects on the grounds that the right of ILECs to retire copper loops recognized in the TRO is not conditioned upon whether the ILEC has previously deployed fiber loops. Without waiving these objections, Qwest states that it has not deployed in Minnesota any of the types of loops listed in the request above as contemplated by the FCC in the TRO regarding next-generation networks, i.e., fiber loops that support truly broadband transmission capabilities such as voice, data, video and other services.

A. As of November 2003, Qwest had 52 terminations of fiber optic cables to end user home locations in Minnesota that are only capable of providing voice service. These fiber terminations are the result of a 1991 (approximate) trial of fiber placement that utilized a non-standard network architecture that was never approved and generally installed by Qwest.

B. 0

C. As of September 2004, Qwest had 1187 fiber to the curb (again not as currently defined) terminations that involved the use of copper drops that only provide voice service. These terminations were the result of a 1994 (approximate) trial of fiber placement that utilized a non-standard network architecture that was never approved and generally installed by Qwest.

D. Qwest is not familiar with the term "fiber to the neighborhood" loops and for purposes of this response is treating "FTTN" loops as fiber to the node loops.

Respondent: Maryann Klasinski, Qwest Manager
Karen Stewart

<u>SUPPLEMENTAL RESPONSE dated 9/14/04:</u>

Without waiving the previous objections, Qwest states that it has not

deployed in Minnesota any of the types of loops listed in the request above as contemplated by the FCC in the TRO regarding next-generation networks, i.e., fiber loops that support truly broadband transmission capabilities such as voice, data, video and other services. Qwest responds further as follows:

A. FTTH - 0

As of November 2003, Qwest had 52 terminations of fiber optic cables to end user home locations in Minnesota that are only capable of providing voice service. These fiber terminations are the result of a 1991 (approximate) trial of fiber placement that utilized a non-standard network architecture that was never approved and generally installed by Qwest.

B. FTTP - 0

C. FTTC - 0

As of September 2004, Qwest had 1187 fiber to the curb (again not as currently defined) terminations that involved the use of copper drops that only provide voice service. These terminations were the result of a 1994 (approximate) trial of fiber placement that utilized a non-standard network architecture that was never approved and generally installed by Qwest.

D. FTTN - 0

Qwest is not familiar with the term "fiber to the neighborhood" loops and for purposes of this response is treating "FTTN" loops as fiber to the node loops.

Respondent: Karen Stewart

Exhibit MZ-3

November 19, 2004

Megan Doberneck
Covad Communications Company
7901 Lowry Blvd.
Denver, CO 80230
mdoberne@covad.com

TO:Megan Doberneck

Announcement Date:	**November 19, 2004**
First Effective Date:	**January 28, 2005**
Document Number:	**NETW.11.19.04.A.001252.Copper_Retimts_Network_Disclosure**
Notification Category:	**Network Notifications**
Target Audience:	**CLECs, IXCs, ILECs, Cellular, Paging**
Subject/Product Name:	**Copper Retirements in AZ, CO, ID, MN, MT, NM, and WY**

Please route this notice to those in your company who have responsibility for the maintenance and implementation of your telecommunications network.

The attached Network Disclosure Announcement reflects the availability in certain areas of Qwest Communications to deliver new or augmented services.

If you have any questions or would like to discuss this notice please contact your Qwest Sales Manager, Elena Donaghy on (559) 434-9754 or your Qwest Service Manager, Eric Yohe on (303) 382-2678. Qwest appreciates your business and we look forward to our continued relationship.

Sincerely,

Qwest

Note: In cases of conflict between the changes implemented through this notification and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party to such interconnection agreement.

The Qwest Wholesale Web Site provides a comprehensive catalog of detailed information on Qwest products and services including specific descriptions on doing business with Qwest. All information provided on the site describes current activities and process. Prior to any

Exhibit MZ-3

modifications to existing activities or processes described on the web site, wholesale customers will receive written notification announcing the upcoming change.

If you would like to unsubscribe to mailouts please go to the ?Subscribe/Unsubscribe? web site and follow the unsubscribe instructions. The site is located at:

http://www.qwest.com/wholesale/notices/cnla/maillist.html

cc: Elena Donaghy
Eric Yohe

Qwest Communications 1600 7th Ave Room 1806 Seattle WA 98008

Exhibit MZ-3

700 West Mineral
Littleton, CO. 80120

Qwest

Network Disclosure Announcement No. 509

Public Notice of Network Change(s), Pursuant to CFR 47, subsections 51.325 - 51.335.
Qwest's Internet address: http://www.qwest.com/disclosures.

Copper Retirements in Arizona, Colorado, Idaho, Minnesota, Montana, New Mexico, & Wyoming

First Implementation Date: January 28, 2005 (Due to city requirements – Pls See AZ Entry)
Network Notices will be sent out to all affected CLECs associated with this specific copper retirement in addition to this Network Disclosure filing.

Other Implementation Dates: Range from February 21, 2005 – December 31, 2005

Original Date Posted: November 18, 2004

Summary: Copper Retirements are necessary to respond to various factors in the Outside Plant, including road construction, maintenance problems, and growth accommodation. Replacement cables may be either copper or fiber. Specific information will be provided with each disclosure.

Locations, Timing of Deployments & Interface Requirements: The following gives additional details on the copper retirement(s):

1	**STATE**	ARIZONA
	WIRE CENTER	CHANDLER MAIN
	8-CHARACTER CLLI	CHNDAZMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	05-Apr-05
	DA (s)	210914; 210915
	FDI Address(es)	1420 E RAY RD; 980 E ORCHID
	Replacing	This job will relocate aerial cable that is conflict with a town of gilbert road project. the road project location is being fed from the wrong da and this will also be corrected on this job
2	**STATE**	ARIZONA
	WIRE CENTER	GREEN VALLEY
	8-CHARACTER CLLI	GNVYAZMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	21-Feb-05
	DA (s)	312132; 323471
	FDI Address(es)	X 793 W WHITEHOUSE CANYON RD
	Replacing	REPLACING CABLES DUE TO MAINTENANCE ISSUES
3	**STATE**	ARIZONA
	WIRE CENTER	MARYVALE
	8-CHARACTER CLLI	PHNXAZMY
	COMPLETION DATE/PLANNED RETIREMENT DATE	28-Jan-05
	DA (s)	110173

	FDI Address(es)	7111 W CAMPBELL AV; 7110 W CAMPBELL AV
	Replacing	This job will retire approximately 3200' of r1 copper and utilize existing fiber to feed the da. the work is being done between 67th and 75th ave on turney rd and campbell rd.this work is being forced by the maricopa county flood control district due to conflicts with a new flood channel being built.
4	**STATE**	ARIZONA
	WIRE CENTER	THUNDERBIRD
	8-CHARACTER CLLI	SCDLAZTH
	COMPLETION DATE/PLANNED RETIREMENT DATE	05-Apr-05
	DA (s)	110422
	FDI Address(es)	X 11010 N SCOTTSDALE RD
	Replacing	this job will remove qwest conflicts with a maricopa flood control drainage project. the cables that are in conflict are 1 aerial and 2 buried cables that will be replaced like-for-like to clear a 10'x5' box culvert being placed
5	**STATE**	ARIZONA
	WIRE CENTER	WHITE TANKS
	8-CHARACTER CLLI	WHTKAZMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	14-Mar-05
	DA (s)	110106
	FDI Address(es)	
	Replacing	THIS JOB WILL REPLACE 285' OF BHBA-100 WITH ANMW-100 GOING JOINT ON EX. POWER POLES TO ELIMINATE BURYING UNDER THE CANAL. THIS CABLE ISWET AND REQUIRES REPLACEMENT ASAP.
6	**STATE**	COLORADO
	WIRE CENTER	BOULDER
	8-CHARACTER CLLI	BLDRCOMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	21-Feb-05
	DA (s)	423981
	FDI Address(es)	58.2 rl69a4; 57.6 rl69a4; 55.6 rl69a4
	Replacing	The scope of work to be completed is the replacement of approx 2700' of buried BHBH-50 (1972) from ped 1148 to ped 58.2 along Twin Sisters Rd served by x-box X 46.9 RL69A in D.A. 423981 in the Boulder wirecenter
7	**STATE**	COLORADO
	WIRE CENTER	DENVER NE
	8-CHARACTER CLLI	DNVRCONE
	COMPLETION DATE/PLANNED RETIREMENT DATE	21-Feb-05
	DA (s)	112722
	FDI Address(es)	IT 3651 E 86 AV
	Replacing	This job proposes to transfer all workers (52 total workers) within F2 count 3255E84,901-1000 into new count 3255E84,1051-1150 and place approx 560' of buried 200pr distribution cable from ped 3431-3621 E 86 Av to cutover an existing 100pr cable to this new count in D.A. 112722 in the Denver Northeast wirecenter.
8	**STATE**	IDAHO
	WIRE CENTER	NAMPA
	8-CHARACTER CLLI	NMPAIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	21-Feb-05
	DA (s)	120503
	FDI Address(es)	

	Replacing	This job REPLACES BHAA-50 WITH ANMW-200 ON LAKE LOWELL AVE BETWEEN S CASSIA ST AND S MIDDLETON RD IN NAMPA, IDAHO. DEVELOPER HAS REQUESTED POLES BE REMOVED DUE TO CONFLICT WITH CITY OF NAMPA REQUIRED ROAD IMPROVEMENTS FOR CREEKSIDE SUBDIVISION.
9	**STATE**	IDAHO
	WIRE CENTER	POCATELLO NORTH
	8-CHARACTER CLLI	PCTLIDNO
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Mar-05
	DA (s)	110201
	FDI Address(es)	X 5355 YELLOWSTONE AV
	Replacing	REPLACING AERIAL CABLE FOR MAINTENANCE PURPOSES
10	**STATE**	MINNESOTA
	WIRE CENTER	ALBERT LEA
	8-CHARACTER CLLI	ALLEMNAL
	COMPLETION DATE/PLANNED RETIREMENT DATE	01-Mar-05
	DA (s)	420102
	FDI Address(es)	901 LUTHER PL
	Replacing	THIS JOB WILL NEGATIVELY IMPACT THE LOOP MAKE-UPS AND CONSIDERED TO BE IMPACTING TO THE CLEC. THIS JOB WILL REPLACE A 22 GUAGE CABLE WITH A 24 GUAGE CABLE ALONG CIRCLE DRIVE IN THE CITY OF ALBERT LEA, MN.
11	**STATE**	MINNESOTA
	WIRE CENTER	COLERAINE
	8-CHARACTER CLLI	CLRNMNCO
	COMPLETION DATE/PLANNED RETIREMENT DATE	25-Feb-05
	DA (s)	115502
	FDI Address(es)	
	Replacing	Replace defective cable 29171 hwy 52: 1,200' of 19 guage 11 pair will be replaced with 22 guage
12	**STATE**	MINNESOTA
	WIRE CENTER	FERGUS FALLS
	8-CHARACTER CLLI	FRFLMNFB
	COMPLETION DATE/PLANNED RETIREMENT DATE	15-Mar-05
	DA (s)	390202
	FDI Address(es)	X 855/11
	Replacing	recent tests indicate 1581' of bhbh-50 pr cable along co hwy 15 and underneath the ottertail river has water in the sheath and is defective to the point beyond economical repair. presently, the maintenance techs have laid out a temporary 50 pr iwc over the culvert crossing the river and along co hwy 15 to keep customers in service. this job will consist of placing 855' of anaw-200 pr cable, and 766' of anaw-100 pr cable.
13	**STATE**	MONTANA
	WIRE CENTER	BOZEMAN
	8-CHARACTER CLLI	BZMNMTMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Dec-05
	DA (s)	114941
	FDI Address(es)	X 3170 BRIDGER CANYON RD; X 3173 BRIDGER CANYON RD

	Replacing	REPLACING X BOX AND CABLING INTO IT
14	STATE	MONTANA
	WIRE CENTER	HARDIN
	8-CHARACTER CLLI	HRDNMTMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Dec-05
	DA (s)	220141
	FDI Address(es)	
	Replacing	this job is required to reroute copper and fiber facilities over a new bridge. (3) sheaths being abandoned are bkma-100, bkma-50, bhaa-100 being replaced with an anmw-200. (2) 12 pair fiber cables will also be replaced with (1) 24 pr fiber
15	STATE	MONTANA
	WIRE CENTER	HELENA
	8-CHARACTER CLLI	HELNMTMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	23-Mar-05
	DA (s)	121311
	FDI Address(es)	X 5201 YORK RD
	Replacing	this job provides for ABANDONING APPROXIAMTELY 121' OF AJAW-25 CABLE. OLD RV PARK HAS BEEN RAZIED BY OWNER, PLANS TO BUILD NEW BUILDINGS IN FUTURE CLOSURE AND CABLE NOT NEEDED AND WILL ACTUALLY BE IN THE WAY OF CONSTRUCTION.
16	STATE	NEW MEXICO
	WIRE CENTER	ALBUQUERQUE ACADEMY
	8-CHARACTER CLLI	ALBQNMAC
	COMPLETION DATE/PLANNED RETIREMENT DATE	21-Feb-05
	DA (s)	311001
	FDI Address(es)	X 6503 TRUCHAS DR NE
	Replacing	THIS JOB WILL REPLACE WET SECTION OF 340FT OF BHAH-200 CABLE BETWEEN LOTS ON TRUCHAS AND LOLA AV N E. THE CABLE IS BURIED AND IS CONTINUALLY GETTING WET. THE CABLE REPLACED IS 340 FT OF BHAH-200PR(1973) AND IS REPLACED BY 340FT OF ANMW-200 (2004).
17	STATE	WYOMING
	WIRE CENTER	CASPER
	8-CHARACTER CLLI	CSPRWYMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	21-Feb-05
	DA (s)	421831
	FDI Address(es)	X 802 CHAMBERLIN RD; X 10 RL66A
	Replacing	THIS JOB REPLACES 450' OF BHAH-50 WITH ANMW-50 FROM PED M 7-1 TO PED M 7 ALONG BOLES RD

Additional Information: Any customer premises equipment vendor/manufacturer or enhanced services provider desiring additional technical information in conjunction with this Disclosure can contact:

Shirley Tallman
700 W. Mineral Ave
Littleton, CO 80120
Shirley.Tallman@qwest.com

Exhibit MZ-4

Qwest
Spirit of Service

September 21, 2004

Megan Doberneck
Covad Communications
7901 Lowry Blvd.
Denver, CO 80230
mdoberne@covad.com

TO:Megan Doberneck

Announcement Date:	**September 21, 2004**
Effective Date:	**September 27, 2004**
Document Number:	**NETW.09.21.04.F.02089.CopperRetirements**
Notification Category:	**Network Notification**
Target Audience:	**CLECs – Colorado**
Subject:	**Copper Retirements**

Summary of Change:

Qwest is planning to retire a section of copper cable located on Highway 85, south of Highlands Ranch Parkway, within the Highlands Ranch, Colorado, wire center (TTNCOHL), as a result of road construction. The existing copper feeder cable serving Distribution Area (DA) 411722 will be replaced by fiber feeder cable. The Colorado Department of Transportation has ordered that Qwest relocate telecommunication facilities in the above noted area by September 27, 2004.

The CLEC Community is requested to respond to Qwest with questions or comments by September 24, 2004. Qwest has determined that there are no impacts to the CLEC community.

If you have any questions on this subject, please feel free to contact Shirley Tallman at shirley.tallman@qwest.com.

Qwest welcomes questions and input from the CLEC community regarding this topic.

You are encouraged to provide feedback to this notice through our web site. We provide an easy to use feedback form at http://www.qwest.com/wholesale/feedback.html. A Qwest representative will contact you shortly to discuss your suggestion.

Sincerely,

Qwest

Note: In cases of conflict between the changes implemented through this notification and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms

and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party to such interconnection agreement.

The Qwest Wholesale Web Site provides a comprehensive catalog of detailed information on Qwest products and services including specific descriptions on doing business with Qwest. All information provided on the site describes current activities and process. Prior to any modifications to existing activities or processes described on the web site, wholesale customers will receive written notification announcing the upcoming change.

If you would like to unsubscribe to mailouts please go to the ?Subscribe/Unsubscribe? web site and follow the unsubscribe instructions. The site is located at:

http://www.qwest.com/wholesale/notices/cnla/maillist.html

cc: Elena Donaghy
Eric Yohe

Qwest Communications 1600 7th Ave Room 1806 Seattle WA 98008

Balvin, Elizabeth

From: Tallman, Shirley [Shirley.Tallman@qwest.com]
Sent: Monday, September 27, 2004 8:58 AM
To: Balvin, Elizabeth
Subject: FW: Customer Inquiry

Cable counts impacted by the change were reviewed for working CLEC circuits. Those CLEC circuits identified were POTS and will be cutover to the digital loop carrier system without disruption to the end-user customer.

Shirley Tallman
Staff Advocate
303 707-7085

Hi Mike,
This customer feedback was received through the Wholesale feedback form. Since you managed this notice, could you please have the appropriate person respond directly to Covad. Please let me know if you have any questions.

Thanks, Erin

-----Original Message-----
From: [mailto:feedback_form@qwest.wholesale]
Sent: Thursday, September 23, 2004 3:18 PM
To: Martin, Erin
Subject: Product Catalog Feedback

Product Catalog Feedback:

Message is from "" <feedback_form@qwest.wholesale>
select: CLEC

name: Elizabeth Balvin

company: Covad

state: CO

email: ebalvin@covad.com

tel-areaCode: 720

tel-firstPart: 670

tel-secondPart: 2423

preferred_contact: email

related_to_doc_number: yes

document_number: Network Notice: Announcements: GN: Copper Retireme

topic: Network

comments_questions: Please identify how "Qwest has determined that there are no impacts to the CLEC community."

Thanks, Liz

Open Product/Process CR PC120301-4 Detail

Title: Implement a process to insure Qwest adheres to ANSI Standard T1.102 and ANSI T1.104 for setting signal and loss level standards for DS3 cable length limitations.

CR Number	Current Status Date	Area Impacted	Products Impacted
PC120301-4	Completed 4/17/2002	Ordering, Maintenance/Repair, Provisioning	Collocation

Originator: Stichter, Kathy

Originator Company Name: Eschelon

Owner: Wycoff, William

Director: Perko, Gale

CR PM: Martin, Ric

Description Of Change

Qwest currently states that it will meet ANSI standards without defining how it will meet the standards. Qwest should commit to engineering a complete DS3 Circuit when the request for a CLEC to CLEC cross-connect is made through the Qwest ICDF. Eschelon asks that Qwest adhere to ANSI Standard T1.102 and ANSI T1.104 with the additional lineal footage, ICDF connections, connectors and DSX interfaces taken into consideration. Without such a standard, CLECs are not assured a clear DS3 signal. If it is discovered that a signal level of no less than -4.7 dBm is present on a single unbalanced coaxial line (20 Ga/26 Ga), Qwest will notify the CLEC that amplification is required and will appropriately amplify the signal to meet ANSI Standards (as identified in ANSI Standard T1.102 and ANSI T1.104). Additionally, Eschelon requires that the two-unbalanced coaxial cable paths are within ± .5 dBm of one another. Otherwise, corrective action is necessary to meet this requirement.

Example #1 (Qwest needs to engineer the entire path (CLEC to CLEC) when the cross-connect is made through the Qwest ICDF). A CLEC to CLEC cross-connect was made with a third party in a Central Office. When the entire lineal footage of the DS3 Circuit was taken into consideration, the DS3 signal was not within ANSI loss level standards. Qwest contends that it will engineer the DS3 cable/signal from the Qwest ICDF to each separate Co-Provider but that it is not responsible for the complete circuit, although all elements involved. (i.e. BNC connectors, ICDF Cross-connect points, and DSX interfaces) contribute significantly to overall signal loss. Since Qwest provisions all three segments of the circuit, Qwest must provision the complete circuit in such a way that meets the ANSI standard.

Status History

11/30/01 - CR received from Eschelon.

12/03/01 - E-Mail Acknowledgement issued to Eschelon Telecommunications

12/04/01 - CR posted to Qwest Wholesale Markets CMP Web page

12/07/01 - Eschelon contacted to schedule clarification call.

12/12/01 - CMP Meeting - Eschelon presented CR to CLEC Community.

12/14/01 - Clarification call conducted with Eschelon. Meeting minutes transmitted to

Eschelon.

01/16/02 - CMP Meeting - Qwest conducted CLEC community clarification discussion. Eschelon requested that Qwest contact Paul Hauser, Eschelon to discuss additional technical issues regarding the CR. Eschelon asked that Michael Zulevic, COVAD be invited to the conference call. CLEC community agreed to change CR Status to "Evaluation."

01/18/02 - Follow-up clarification call conducted with Eschelon and Covad in attendance; minutes transmited to Eschelon and Covad.

02/08/02 - Qwest draft response (dated 02/06/02) posted in CMP database & transmitted to Eschelon.

02/20/02 - CMP Meeting - Qwest presented the "Draft" response. CR status changed to "CLCE Test." Meeting discussions will be set forth in the Product/Process Draft Meeting Minutes contained in the Product/Process CMP Meeting Distribution Package (03/20/02).

02/22/02 - Qwest "Formal" response (dated 02/06/02) posted in CMP data base.

03/20/02 - CMP Meeting - Eschelon requested that the CR remain in CLEC Test for another month until the have a chance to perform a test.

04/17/02 - CMP Meeting - Meeting discussions will be set forth in the Product/Process Meeting Minutes to be posted on the CMP Web site. It was agreed that the CR could be closed.

Project Meetings

8:00 p.m. (MDT) / Friday 18th January 2002 Conference Call TEL: 877.564.8688 CODE: 6265401 PC120301-4 "Implement a process to insure Qwest adheres to ANSI Standard T1.102 and ANSI T1.104 for setting signal and loss level standards for DS3 cable length limitations." [Follow-up]

Kathleen Stichter, Eschelon Paul Hanser, Eschelon Michael Zulevic, Covad Bill Wycoff, Qwest Jeff Ferra, Qwest Laurel Burke, Qwest Peter Wirth, Qwest

1.0 Introduction of Attendees Attendees introduced.

2.0 Review Requested (Description of) Change {review long description from change request, confirm with all parties there is agreement on the change requested} Clarification was obtained from Eschelon & Covad for the subject CR. The following items were discussed: 1) Paul Hanser, Eschelon identified two (2) types of CLEC to CLEC connections in Qwest CO facilities: 1) direct connection (i.e., no routing through Qwest ICDF; and 2) connection through Qwest ICDF(s). Direct connections, in general, exhibit fewer problems and mainly concern cable lengths and re-generation concerns. Connections routed through a Qwest ICDF(s) usually involve larger Qwest CO facilities that may involve multiple floors and require more detailed assessments of circuit cable lengths, regeneration, ICDF connection losses, and other connector losses (i.e., BNC). Eschelon expressed concern that proper engineering and testing of the end to end portion of the Qwest furnished curcuit (i.e., cabling, regeneration (if required), all related connections) need to be conducted properly prior to "throwing the cables over the fence into the co-location areas." 2) Michael Zulevic, Covad concurred with Eschelon and also requested cable continuity testing and documentation for the Qwest provided portion of the circuit at the conclusion of the construction phase; along with possible collaborative testing during the test & turn-up phase. 3) William Wycoff, Qwest asked Eschelon what signal levels are being transmitted and received from their co-location areas. Paul Hanser, Eschelon indicated that maximum transmit and minimum receive are

indicative of signal levels.

3.0 Confirm Areas & Products Impacted {read from change request, modify if needed} N/A. Discussed in previous clarification meeting.

4.0 Confirm Right Personnel Involved {ensure the Qwest SME can fully answer the CLEC request. Confirm whether anyone else within Qwest has been involved with this issue, or whether we need to bring anyone else in} N/A. Discussed in previous clarification meeting.

5.0 Identify/Confirm CLEC's Expectation {Identify specific deliverables from CLEC – what does Qwest have to do in order to close this CR? (in measureable terms ie provide a documented process, change a process to include training etc)} Qwest to generate draft response for CMP Monthly Product & Process Meeting.

-

1:30 p.m. (MDT) / Friday 14th December 2001 Conference Call TEL: 877.564.8688 CODE: 6265401 PC120301-4 "Implement a process to insure Qwest adheres to ANSI Standard T1.102 and ANSI T1.104 for setting signal and loss level standards for DS3 cable length limitations" Clarification Meeting

Kathleen Stichter, Eschelon Renee Lernes, Eschelon Bill Kent, Eschelon Bill Wycoff, Qwest Jeff Ferra, Qwest Laurel Burke, Qwest Peter Wirth, Qwest

1.0 Introduction of Attendees Attendees introduced.

2.0 Review Requested (Description of) Change {review long description from change request, confirm with all parties there is agreement on the change requested} Eschelon presented the CR. Eschelon requested that the completed circuit provided by Qwest for CLEC to CLEC cross connect through a Qwest Interconnect Distribution Frame (ICDF) provide a signal level of no less than –4.7 dBm (additional detail in CR). Qwest is responsible for completing the cross connect circuit.

3.0 Confirm Areas & Products Impacted {read from change request, modify if needed} "Collocation" confirmed as appropriate. "Physical" & "ICDF Collocation" boxes under "Collocation" identified during conference call.

4.0 Confirm Right Personnel Involved {ensure the Qwest SME can fully answer the CLEC request. Confirm whether anyone else within Qwest has been involved with this issue, or whether we need to bring anyone else in} Qwest & Eschelon confirmed appropriate personnel were in attendance.

5.0 Identify/Confirm CLEC's Expectation {Identify specific deliverables from CLEC – what does Qwest have to do in order to close this CR? (in measureable terms ie provide a documented process, change a process to include training etc)} Qwest to evaluate CR. During the January 2002 Monthly P&P CMP Meeting , a CLEC community clarification session will be conducted with Qwest providing potential options for addressing the CR.

6.0 Identify any Dependent Systems Change Requests {Note any connected CRs and the potential impacts} None.

QWEST Response

February 6, 2002

Kathy Stichter ILEC Relations Manager Eschelon Telecom Inc

SUBJECT: Qwest Change Request Response - Number PC120301-4 (December 3, 2001) - Implement a process to insure Qwest adheres to ANSI Standard T1.102 and ANSI T1.104 for setting signal and loss level standards for DS3 cable length limitations.

Qwest has responsibility to engineer network elements within its Central Offices (CO) in an efficient manner. Qwest has engineering criteria establishing DSX-N cross-connect fields that are in compliance with ANSI Standard T1.102 for setting signal and loss levels using cable length limitations, signal source level control, and signal regeneration. It is unclear how ANSI Standard T1.104 relates to the signal level question.

To minimize equipment, the ICDF is not engineered as a DSX-N level point. According to Technical Publication 77386 on Interconnection and Collocation, Chapters 5 and 15, the engineering requirement is to design through the ICDF to a DSX-N point when accessing unbundled offerings such as Unbundled Loops, Unbundled Dedicated Interoffice Transport, etc. This principle was established circa 1996 in FCC Docket 93-192.

The CLEC-to-CLEC Cross-Connection (COCC-X) offering is defined as the CLEC's capability to order a cross-connection from its Collocation in a Qwest Premises to its non-ajacent Collocation space or to another CLEC's Collocation within the same Qwest Premises at the Interconnection Distribution Frame (ICDF). This is accomplished by the use of the CLEC's Connecting Facility Assignment (CFA) terminations residing at the same ICDF and at the same service rate level.

Qwest is providing clarification for the following activities to address this request:

- CLEC ordering procedure for cross-connection; - Qwest engineering data exchange with the requesting CLEC(s) for the cross-connection; - CLEC to CLEC cross connection within the Qwest Central Office (CO); - ICDF connections, and regeneration installation; and - Verification testing.

CLEC Ordering Procedure

CLEC to CLEC cross-connections are ordered through the Qwest EXACT-PC system using the Access Service Request (ASR) form. This form is used for ordering Access and Local Network Interconnection Services. Qwest processes the ASR and determines a ready for service (RFS) date for the connection.

The requesting CLEC(s) is required to assess the need for signal regeneration prior to submittal of the completed ASR form. An engineering data exchange can be arranged through the Qwest Wholesale Collocation Project Manager (http://www.uswest.com/wholesale/clecs/escalations.html)

Qwest Engineering Data exchange with requesting CLEC(s)

The requesting CLEC(s) are required to know the cable types and lengths from their equipment to the ICDF(s) in order to assess the need for signal regeneration. The need for regeneration may arise when the distances between the CLEC's collocation equipment exceeds twice the cable length limitation criteria (table) when connected through the ICDF. The total cable length limitation from signal source to sink, without a DSX-N point is nominally, two times the shown length.

Qwest will provide the requesting CLEC(s) the type and length of cable between their physical space and the ICDF. Each CLEC uses this information to design the span between their equipment. The design is done to determine any need for regeneration. Regeneration is typically at the ICDF.

[Table in Supplemental Information]

Given the probability of having cable lengths that total less than the maximums, it has been and is the CLEC's responsibility to set any transmit attenuators in their equipment. Given the possibility that total cable lengths from the Collocation spaces through the ICDF are longer than the table allows, there is the opportunity for a CLEC to request regeneration by using a specific Network Channel Interface (NCI) code on their order. The NCI is chosen from Table 6-5 of Tech Pub 77386 using one that calls for regeneration. CLEC to CLEC cross connects occur between two CLECs within a Qwest CO and use jumper cables at the ICDF to complete the link. There is no assured DSX-N level point in the circuit.

Figure A below illustrates the situation where there is a single, ICDF cross-connect to complete a CLEC-to CLEC circuit that needs a regenerator. There is no DSX-N level point assured in this circuit.

[Figure A in Supplemental Information]

Figure A: Single ICDF Connection with Regeneration

ICDF connections and regeneration installation

Qwest, following receipt of the ASR will perform ICDF connections and regeneration functions. Equipment additions for regeneration (if no spares are available) will be initiated. Qwest completes these activities and conducts verification testing.

Verification testing

Verification testing of the cross-connection will be conducted to assure compliance with the ASR. Cooperative testing on circuits will be conducted with Qwest and requesting CLEC(s) technicians.

Qwest will coordinate with the requesting CLEC and schedule the testing of the completed cabling, ICDF connections and regeneration. CLEC(s) will be responsible to terminate cabling into their respective collocation equipment prior to the testing effort.

Although circuit testing is the responsibility of the CLECs, Qwest will provide technician support of CLEC to CLEC circuit testing efforts and provide trouble-shooting support, as necessary to successfully complete an ASR. Such testing shall confirm that ASR ordered circuits perform to service objectives in ANSI Standard T1.510, Network Performance Parameters for Dedicated Digital Services for Rates Up to and Including DS3. Clauses 8.2 and 8.3 describe DS1 and DS3 testing, respectively.

Sincerely,

William R. Wycoff Services Planning Qwest

CC: Bill Campbell, Qwest Barry Orrel, Qwest Gale Perko, Qwest Mary Retka, Qwest

Exhibit MZ-7

Qwest

Qwest Response to Document In Review

Response Date:	**July 17, 2003**
Document:	**Product/Process: Technical Publication #77386 (Interconnection and Collocation for Transport and Switched Unbundled Network Elements and Finished Services)**
Original Notification Date:	**June 17, 2003**
Notification Number:	**NETW.06.17.03.F.01847.TechPub_77386_Update**
Category of Change:	**Level 3**

Qwest recently posted proposed updates to Technical Publication #77386, Issue I, *Interconnection and Collocation for Transport and Switched Unbundled Network Elements and Finished Services* CLECs were invited to provide comments to these proposed changes during a Document Review period from June 17, 2003 through July 2, 2003. The information listed below is Qwest's Response to CLEC comments provided during the review/comment cycle.

Resources:
Customer Notice Archive http://www.qwest.com/wholesale/cmp/review_archive.html
Document Review Site http://www.qwest.com/wholesale/cmp/review.html

If you have any questions on this subject or there are further details required, please contact Qwest's Change Management Manager at cmpcomm@qwest.com.

Qwest Response to Product/Process: Tech Pub # 77386, Issue I Comments

#	Page/Section	CLEC Comment	Qwest Response
1	Page 3-27 Section 3.5.1	***Eschelon*** ***June 25,2003*** Comment: Eschelon would like to submit the following objections to the proposed change. This may have significant impact on the ability of Eschelon to interconnect with other carriers within Large Qwest facilities; carriers that provide the basic backhaul services to Eschelon. The elimination of DS1 regeneration services could adversely affect delivery of services to customers. Page 70 reveals these soon-to-be-deleted paragraphs that describes the situation: "Tie cables that go to DSX 1 and DSX 3 "Design To" point cross connect panels may require	**Tech Pub will not be updated:** Qwest is not eliminating DSX regeneration, but merely changing who is responsible for determining when regeneration is required. The changes in the Tech Pub were driven by this recent change in who is responsible for determining when regeneration is required. More specifically, the CLEC's are no longer responsible for determining if regeneration is required, Qwest is now responsible for that determination. As a result of this change in responsibility, the tech pub is being updated to remove all statements and NC/NCI codes that indicate that the CLEC's need to order regeneration, or are responsible for determining when regeneration is required.

Note: In cases of conflict between the changes implemented through this notification and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party.

The Qwest Wholesale Web Site provides a comprehensive catalog of detailed information on Qwest products and services including specific descriptions on doing business with Qwest. All information provided on the site describes current activities and process. Prior to any modifications to existing activities or processes described on the web site, wholesale customers will receive written notification announcing the upcoming change.

		regeneration in some large wire centers to meet the templated signal requirements at the DSX panels. The CLEC must evaluate the need for regenerators using the length and type of tie cables (description provided by Qwest) and similar information about the cables and equipment on their side of the ICDF or DC POTs. Typical maximum lengths are 655 feet for 22 gauge shielded cable for DS1 and 450 feet of 728 type coaxial cable for DS3. Other tie cable types and gauges will be encountered in some wire centers. Further information about cable types and regeneration may be found in Chapter 15." When using the more typical 24 gauge wire for DDSs and 735 coaxial cable for DS3s the distances are 450ft and 225ft respectively. If this change was to occur, certain Eschelon services offered out of Large Wire Centers may have to end, or Eschelon may be forced to purchase more expensive retail products from Qwest to get such services where they are needed. Either way this move is anti-competitive as it increases cost or inhibits CLEC commerce.	NOTE: The state specific SGATs are also in the process of being updated to reflect this new stance on who is responsible for determining when regeneration is required.

Non-Confidential Version

EXHIBIT
C-4
admitted

COVAD – 4

COVAD – 4

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	**Docket No. T-03632A-04-0425**

REBUTTAL TESTIMONY OF
MICHAEL ZULEVIC
(Non Confidential Version)

FILED ON BEHALF OF
DIECA COMMUNICATIONS, INC.,
D/B/A COVAD COMMUNICATIONS COMPANY

January 18, 2005

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1 **Q. MR. ZULEVIC, PLEASE IDENTIFY YOURSELF FOR THE COMMISSION.**

2 A. My name is Michael Zulevic, and I currently provide consulting services for Covad
3 Communications Company. My business address is 22801 Entwhistle Road E., Buckley,
4 Washington 98321.

5 **Q. ARE YOU THE SAME MR. ZULEVIC WHO PREVIOUSLY FILED DIRECT**
6 **TESTIMONY IN THIS ARBITRATION CASE?**

7 A. Yes, I am.

8 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

9 A. The purpose of this testimony is to respond to the direct testimony filed by Qwest witnesses
10 Karen Stewart and Michael Norman relating to Arbitration Issue Nos. 1 (Copper Retirement)
11 and 5 (Regeneration) .

12 **ARBITRATION ISSUES**

13 **ISSUE 1: <u>COPPER RETIREMENT: SHOULD QWEST BE PERMITTED TO RETIRE</u>**
14 **<u>COPPER FACILITIES SERVING COVAD'S END USERS IN A WAY THAT</u>**
15 **<u>CAUSES THEM TO LOSE SERVICE?</u>**
16

17 **Q. PLEASE STATE WHY THE ENTIRETY OF MS. STEWART'S DIRECT**
18 **TESTIMONY IS INAPPOSITE TO THE COPPER RETIREMENT ISSUE.**

19 A. There are three primary reasons why Ms. Stewart's testimony is inapposite. First, the entirety
20 of her testimony relative to Qwest's legal rights and obligations pertains solely to the copper
21 retirement rules that apply where copper is retired and an FTTH loop is deployed.
22 Specifically, Ms. Stewart relies entirely on Paragraphs 271-284 of the TRO, which address the
23 deployment of FTTH loops by ILECs and any copper retirement activity that results from
24 such FTTH deployment. Because Covad's copper retirement proposal does not apply in that
25 scenario, Ms. Stewart's testimony is irrelevant.

Second, the FCC has made clear that there are two absolutely necessary prerequisites that an ILEC must satisfy before it can take advantage of any copper retirement policies and procedures created via the TRO. The first prerequisite is that fiber loops deployed be capable and actually provide enhanced broadband services. As the FCC stated numerous times in the FTTC Reconsideration Order:

> We further specify that the fiber transmission facility in a FTTC loop must connect to copper distribution plant at a serving area interface from which every other copper distribution sublooop also is not more than 500 feet from the respective customer's premises. ***We do this to ensure that our unbundling relief is targeted to FTTC deployments that are designed to bring increased advanced services capability to users, rather than extend to other hybrid loop deployments...***[1]
>
> Finally, in order to ensure that our new rules promote the goals of section 706, we tailor unbundling relief ***to those FTTC deployments specifically designed to bring advanced services to users***.. . . we provide those incumbents seeking to avail themselves of this unbundling relief an incentive ***to reconfigure their network to bring advanced services to the entire geographic area rather than permitting them to obtain unbundling relief where, by happenstance, there may be an existing loop with 500 feet or less copper distribution.***[2]

To date, Qwest has provided no evidence or testimony that its fiber deployment is in any way designed to ensure the delivery of enhanced broadband services.

Q. DO YOU HAVE ADDITIONAL INFORMATION SHOWING THAT QWEST'S FIBER DEPLOYMENT IS DONE FOR REASONS UNRELATED TO THE PROVISION OF BROADBAND SERVICES – ENHANCED OR OTHERWISE?

A. Given what I know about the network architecture that Qwest has chosen for purposes of supporting voice and DSL service, the deployment of fiber alone in no way ensures that end users served on an all fiber or hybrid copper-fiber loop can or will receive anything other than

[1] Id., ¶10 (emphasis added).
[2] Id. ¶ 17 (emphasis added).

1 plain old telephone service ("POTS"). In other words, while Qwest regularly can and does
2 deploy fiber and the equipment necessary to connect effectively to copper distribution loops,
3 unless Qwest specifically opts to deploy additional equipment capable of supporting DSL
4 service, Qwest's standard fiber deployment is really only designed to support growth and
5 additional needs for POTS and POTS lines. Qwest's fiber deployment, standing alone, does
6 not allow Qwest to provide DSL or enhanced broadband capabilities like video. Additionally,
7 because Qwest's fiber deployment is not made with a specific requirement that the copper
8 distribution loops be of a length that can support DSL, much less video services, Qwest's
9 fiber deployment is very much oriented towards relieving POTS capacity demands and not to
10 providing broadband services – enhanced (i.e., video) or otherwise (i.e., DSL).

11 To the extent that Qwest's fiber deployment is broadband capable, it appears to be the
12 rare exception, rather than the rule that the fiber Qwest has deployed can provide any service
13 other than what's already available over the all copper loop running between the customer
14 premises and the central office. Finally, given DSL technology that will be available in 4-10
15 months, all copper loops will also be able to support video services, thereby eliminating
16 entirely any service advantage that Qwest might gain (which is not a given, as I just
17 explained) by virtue of its fiber deployment.

18 Consequently, all the uncontroverted testimony and evidence points to the fact that
19 Qwest's fiber deployment is done solely for the purpose of network maintenance or, more
20 perniciously, to drive competitors off the network. This kind of activity was not designed to
21 be protected in any way, as the FCC made clear.

Lest there be any question, Qwest's highest ranking officer, Richard Notebaert, late last year reiterated the fact that Qwest is not and will not engage in any kind of fiber deployment designed to bring enhanced broadband services to existing Arizona consumers:

> After failing to generate adequate returns by offering TV over fiber-to-copper networks in Colorado and Arizona, the No. 4 Bell, Denver-based Qwest Communications International, Inc. is sitting out the current [fiber deployment] craze. CEO Richard C. Notebaert says he's willing to install fiber only in new housing developments. "When you go in to do a tear up or an overlay, the economics don't work," he says.[3]

Consequently, while Qwest has notified carriers regularly about copper retirement activity, none of these retirements appear to be resulting in the deployment of additional advanced services to customers, and Qwest has made no pretense at proving otherwise, because it cannot. As the FCC has made clear, maintenance decisions like Qwest's are not protected activity, and certainly should not trump the FCC or this Commission's directive to promote competition and the efficient investment in advanced telecommunications services.

Q. QWEST HAS TALKED ELSEWHERE ABOUT THE FACT THAT ITS FIBER DEPLOYMENT MAY BE CAPABLE OF SUPPORTING BROADBAND SERVICES, DEPENDING ON THE TYPE OF CUSTOMER PREMISES EQUIPMENT THAT THE CUSTOMER HAS. DOES THIS CHANGE YOUR OPINION ABOUT QWEST'S FIBER DEPLOYMENT?

A. No, it doesn't. The primary reason that it doesn't change my opinion is that, whenever loop capabilities are contingent on the type of CPE a customer has, then you are automatically talking about a business customer, and most likely an "enterprise" customer. As is clear from the TRO as well as the FCC's FTTC Reconsideration Order, the FCC is not concerned about

broadband access and capabilities available to enterprise customers (presumably because those customers will always get what they want since they yield the highest margins for telecom providers). Rather, the FCC made clear it wanted to incent the deployment of fiber and enhanced broadband services to residential, or "mass market" customers. So, Qwest's attempt to bolster the supposed broadband capabilities of its fiber deployment is misleading, since such fiber is serving business and not residential customers.

Q. YOU MENTIONED THAT THERE WERE TWO PREREQUISITES TO QWEST INVOKING THE PROTECTIONS ASSOCIATED WITH THE TRO'S COPPER RETIREMENT RULES. WHAT WAS THE SECOND PREREQUISITE?

A. As I alluded to in my prior answer, in the FTTC Reconsideration Order, the FCC made clear that its copper retirement rules and associated unbundling relief were not to further deployment of facilities to enterprise customers, but rather to mass market customers. The FTTC Reconsideration Order makes a number of references to the fact that the deployment incentive originally discussed in the TRO with respect to FTTH loops and then extended to FTTC loops in the Reconsideration Order was granted in order to ensure deployment of enhanced broadband capabilities to mass market customers:

> "Such a change in our rules is necessary to ensure that regulatory disincentives for broadband deployment are removed for carriers seeking to provide advanced services to ***mass market customers*** ...".[4]
>
> "We do not require incumbent LECs to provide unbundled access to new ***mass market*** FTTC loops for either narrowband or broadband services."[5]

[3] Catherine Yang, *Cable vs. Fiber: In the Titanic Battle to Control the Flow of Data to U.S. Households, the Bells Fight Back by Offering Video via Phone Lines*, Businessweek, November 1, 2004.
[4] Id., ¶ 9 (emphasis added).
[5] Id., ¶ 14 (emphasis added).

1 FCC Chairman Powell in his concurring statement reiterated the fact that the FCC's TRO
2 and associated reconsideration orders were designed to result in benefits to consumers, and
3 not businesses -- "by limiting the unbundling obligations of incumbents when they roll out
4 deep fiber networks ***to residential customers***, we restore the market place incentives of
5 carriers to invest in new networks."

6 **Q. THE FACT THAT QWEST'S COPPER RETIREMENT LANGUAGE DOES NOT**
7 **EVEN TAKE INTO ACCOUNT THESE TWO REQUIREMENTS RENDERS IT**
8 **FATALLY FLAWED, ISN'T THAT ACCURATE?**

9 A. The answer to this question must be "yes." Regardless of the ultimate outcome of the
10 underlying legal issue, Qwest's current copper retirement proposal is overly broad and overly
11 inclusive of the retirement scenarios that the FCC intended to protect. Because Qwest
12 nowhere limits its proposal to FTTH (or FTTC) deployment resulting in the actual provision
13 of (1) enhanced broadband services to (2) mass market customers, it cannot withstand legal or
14 commission scrutiny.

15 **Q, QWEST ALSO HAS FAILED TO PROVIDE ANY EVIDENCE THAT ITS FIBER**
16 **DEPLOYMENT WILL PROVIDE SERVICES THAT REFLECT AN**
17 **ENHANCEMENT OVER WHAT CAN BE PROVIDED OVER COPPER, HASN'T IT?**

18 A. That is correct. Qwest has provided no evidence that its fiber deployment allows it to provide
19 any enhanced broadband services that aren't already available over an all copper loop. As
20 stated in my Direct Testimony, there are new, copper-based technologies that will allow
21 carriers to provide video (along with voice and data) over all-copper loops, which places
22 copper on even footing with fiber with respect to the array of broadband services that can be
23 provided. And as Merrill Lynch recently reported, "[d]espite the hoopla surrounding fiber all

the way to the end user premises (FTTP), we still believe the regional Bells will first exploit the existing copper plant that supports DSL as much as possible for new services. The adoption of new DSL flavors, such as ADSL. ADSL2+ and VDSL will increase ASP."[6]

The ongoing importance of copper, as a better source for enhanced broadband services than fiber over at least the next few years was affirmed by the New York Times, which noted that the "continued reliance on copper for the final link to the homes of consumers makes sense to some experts, who say improvements in software compression and Internet connection technology make to-the-home fiber unnecessary .... [pointing] to companies in Japan and South Korea that are already selling high speed internet connections and video over copper networks."[7] Thus, far from having any inherent advantage over copper, fiber actually appears to be the less attractive option for broadband purposes over at least the next few years and certainly the term of the parties' interconnection agreement. As my testimony above indicates, Qwest seems to agree.

It would be one thing to allow Qwest to protect new network investment, designed to deliver new services, from new unbundling demands. However, the reality is that Qwest proposals will allow it to close its network and eliminate competition as communities grow, and require additional feeder capacity to provide basic services. Those customers would then be left without any competitive choices under Qwest's proposal, and with no new services.

Q. PLEASE CORRECT MS. STEWART'S MISUNDERSTANDING REGARDING QWEST'S SUPPOSED UNRESTRICTED RIGHT TO RETIRE COPPER LOOPS.

[6] Merrill Lynch, "Telecom Equipment," October 8, 2004.
[7] Ken Belson, *Phone Line Alchemy: Copper to Fiber*, The New York Times, October 11, 2004.

1 A. Certainly. Ms. Stewart appears to espouse the position that Qwest is free to retire copper
2 loops without restriction. That is just not correct. First, the copper retirement rules discussed
3 by the FCC and Ms. Stewart in her testimony address copper retirement resulting in FTTH or
4 FTTC loops. Since Qwest isn't deploying those types of loops and the Covad proposal does
5 not apply in that scenario, there actually is no affirmative permission granted by the FCC to
6 Qwest (or the other ILECs) to retire copper. Moreover, because of the economic and
7 consumer impacts that flow from copper retirement, the Commission must carefully scrutinize
8 these impacts to ensure that consumers are not harmed by Qwest's unilateral retirement of
9 copper feeder plant. Finally, the FCC made clear that any and all state requirements
10 pertaining to copper retirement would continue to apply, regardless of the impact they might
11 have on federal policies encouraging the deployment of fiber -- "any state requirements that
12 currently apply to an incumbent LEC's copper loop or copper subloop retirement practices
13 will continue to apply."[8] Thus, the FCC has made clear that Arizona's copper retirement rules
14 and policies continue to apply, notwithstanding the federal rules established by the FCC.

15 **Q. EXPLAIN WHY MS. STEWART IS INCORRECT IN ASSERTING, AT PAGE 8 OF**
16 **HER DIRECT TESTIMONY, THAT THE FCC HAS REJECTED COVAD'S**
17 **PROPOSAL.**

18 A. Ms. Stewart mistakenly suggests that Covad's copper retirement proposal was already
19 rejected by the FCC. That is just not correct. If you actually look at the copper retirement
20 proposals rejected by the FCC in the TRO, you will see that they are very different than the
21 proposal that Covad makes, and go far beyond what Covad requests here. For example, the
22 High Tech Broadband Coalition and the Telecommunications Industry Association proposed

[8] TRO, ¶ 271.

that an ILEC be allowed to retire copper if and only if the ILEC provided access to those fiber broadband facilities for both new and existing customers via a voluntary agreement that would be available on a non-discriminatory basis to other carriers.[9] That is a far cry from what Covad proposes here. Allegiance went even farther, arguing that ILECs should not be allowed to retire copper loops at all. Clearly, Covad's proposal is much more limited in scope, purpose, and duration. It has the advantages of maintaining existing service and customer choice envisioned by the FCC, without the drawbacks of the proposals discussed above, which may have discouraged carriers' investment in next generation facilities. Because of the consumer and competitive good inherent in the Covad proposal, it should be adopted by the Commission.

Q. PLEASE EXPLAIN WHY MS. STEWART'S SUPPOSED CONCERNS REGARDING THE AMBIGUITY OF COVAD'S "ALTERNATIVE SERVICE" PROPOSAL IS A RED HERRING.

A. Qwest attacks Covad's alternative service proposal, essentially on three grounds: first, it has no legal basis (this issue is addressed above and in my Direct Testimony); second, it is so vague that it gives no direction to Qwest as to how to comply with its terms; and third, that it would deny Qwest the right to recover its costs, as required by 252(d)(1). These arguments do not survive serious analysis.

Qwest's second point, that the proposal is not properly defined, fails to take into account that the two critical characteristics of any alternative service, service quality and price

[9] See Comments of the High Tech Broadband Coalition, April 5, 2002, *In the Matter of the Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket Nos. 01-338, 96-98, and 98-147, at pages 36-37; Comments of the Telecommunication Industry Association, April 5, 2002, *In the Matter of the Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket Nos. 01-338, 96-98, and 98-147, at pages 17-18; Comments of Allegiance Telecom, Inc., April 5, 2002, *In the Matter of the Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket Nos. 01-338, 96-98, and 98-147, at page 25.

stability, are clearly defined. Contrary to Qwest's protestations otherwise, clear and obvious metrics exist to determine whether a given customer's service is "degraded" by the move to an alternative service: availability of the connection, and the speed of that connection, measured in kilobits per second (kbps). Qwest's professed ignorance as to what Covad's proposal means is questionable at best, given its adamant refusal to discuss any of these terms and the multitude of situations in which language in interconnection agreements has obvious, though not precisely explained implications.

One need not look far to find an example- Qwest's own proposal regarding copper retirement contains equally general language when it states that "Qwest and CLEC will jointly coordinate the transition of current working facilities to the new working facilities so that service interruption is held to a minimum." This language can be read to mean that Qwest will provide access to fiber feeder and distribution facilities, even FTTH loops, or it can be read to mean that Qwest will provide something less. Also, what constitutes "minimum" service disruption under Qwest's proposal? This language is open to a certain level of interpretation, perhaps even a greater level than Covad's proposed language.

Q. WHAT ABOUT MS. STEWART'S CLAIM ON PAGE 12 OF HER DIRECT TESTIMONY, THAT COVAD'S ALTERNATIVE SERVICE PROPOSAL WILL NOT ALLOW QWEST TO RECOVER ITS COSTS?

A. Ms. Stewart claims that Covad's proposal fails to provide Qwest with a means of recovering its costs for providing an alternative service. Implicit in this argument is an assumption that whatever means Qwest uses to provide the service will be more expensive than the current method of providing service to Covad. As an example of this, Qwest compares the rate it is permitted to charge for line sharing in Arizona (about $2.50) to the more expensive (yet somehow still undefined) alternative service. This is nothing more than a collateral attack on this Commission's rate for line sharing.

1 Ms. Stewart's statements also ignore the fact that all of the rates for its wholesale
2 services are set on the basis of *average* costs. To the extent certain alternative arrangements
3 raise Qwest's actual costs, this is best addressed in a review of Qwest's wholesale rates.
4 Some specific arrangements may be more expensive, some less expensive. Qwest's overly
5 literal interpretation of section 252(d)(1) would logically lead to the conclusion that every
6 wholesale arrangement that, for whatever reason, falls below the average cost of providing
7 that element would violate the Act. Such an analysis would make it impossible for this
8 Commission to set wholesale rates at all.
9 In addition, it is difficult to understand how the deployment of state-of-the-art, or at
10 least improved, fiber technology could result in higher network costs. For years, Qwest and
11 the other ILECs have decried the unfairness of TELRIC pricing, arguing that its assumption of
12 state-of-the art network components unfairly *reduces* their wholesale rates. Qwest now turns
13 that argument on its head, arguing that the same state-of-the-art network is actually more
14 expensive to operate.
15 Covad's proposal fundamentally stands for the proposition that Qwest cannot
16 unilaterally change its wholesale rates by re-configuring its network. If Qwest believes there
17 are benefits to such a reconfiguration, it should be able to perform it, but allowing Qwest to
18 shift costs of reconfiguration onto its competitors will distort its decisions, and replace
19 marketplace thinking with regulatory calculations.
20 **Q. QWEST HAS ALSO SUGGESTED IN OTHER ARBITRATIONS THAT COVAD**
21 **CAN SIMPLY RESELL QWEST DSL WHEN IT'S COPPER RETIREMENT**
22 **ACTIVITIES PULL THE RUG OUT FROM UNDERNEATH EXISTING COVAD**
23 **CUSTOMERS. EXPLAIN WHY THAT WILL NOT WORK.**
24 A. The answer is one of simple economics (discussed below and in my Direct Testimony) and
25 significant barriers to actual use. With respect to the economics issue, as the FCC apparently

1 concluded in the TRO, a carrier providing ADSL service (which is the primary service type
2 that would be impacted by Qwest's copper retirement) earns $18 in revenue per customer.[10]
3 Based on my modification to a pricing exhibit that was submitted in connection with the
4 Minnesota interconnection agreement arbitration proceeding and is attached hereto as Exhibit
5 MZ-8, there is only one resale option available to Covad for which costs would not exceed
6 revenue. And when you tack on the cost of the ISP service – generally about $8 -- (which is
7 required in order to surf the net but which is not included in the costs set out in Exhibit MZ-8,
8 none of the resale options Qwest purportedly makes available would allow Covad to provide
9 service without its costs exceeding its revenue by a significant amount.

10 **Q. WHAT ABOUT MS. STEWART'S COMMENT, AT PAGE 7 OF HER DIRECT**
11 **TESTIMONY, THAT COVAD COULD COLLOCATE A REMOTE DSLAM TO**
12 **SERVE CUSTOMERS IMPACTED BY A FIBER FEEDER REPLACEMENT? WHY**
13 **ISN'T THAT A VIABLE OPTION?**

14 A. Ms. Stewart's comment flies in the face of reality. Qwest has testified openly in other
15 proceedings that it would cost at least $90,000 to collocate a remote DSLAM. No provider,
16 whether ILEC or CLEC, can afford to expend that kind of capital to support service to a small
17 handful of customers particularly given industry average churn rates that show customers
18 change providers about every two years. It would only make sense to make that kind of
19 capital investment if the carrier knew or reasonably could anticipate, *in advance*, that it would
20 be able to obtain and retain enough customers to make the investment a rationale one. This,
21 of course, is the essence of capital investment decision-making, since every carrier makes that
22 kind of evaluation and judgment before committing capital to any kind of project.

[10] TRO, n.807.

1 That rational – and in today's economy, absolutely necessary – kind of decision-
2 making is not a possibility here, given that (1) Covad would not be able to make that kind of
3 judgment before the need for a remote DSLAM arose; and (2) by the time Covad could
4 collocate a remote DSLAM, the fiber feeder would be in place and the customers would have
5 already lost their Covad service. For these same reasons, the supposed ability to coordinate a
6 transition of service from all copper to a hybrid loop is not realistic, given the time and
7 monetary constraints that would result in the disconnection of the customer before any
8 supposed transition could possibly occur.

9 I must emphasize here that Covad is not involved in the Qwest network planning
10 process, so Covad would rarely, if ever, have the amount of time necessary to undertake the
11 kind of decision-making necessary to justify, if that's even possible, the investment in a
12 remote DSLAM.

13 **Q. MS. STEWART ALSO APPEARS TO CLAIM AT PAGES 6-7 OF HER DIRECT**
14 **TESTIMONY THAT QWEST'S COPPER RETIREMENT NOTICE IS LEGALLY**
15 **SUFFICIENT. PLEASE EXPLAIN WHY IT IS NOT.**

16 A. First, it is important to know that, while Ms. Stewart states that the parties have agreed upon
17 the language contained in Section 9.1.15, that is not entirely accurate. While the parties do
18 agree on the language Qwest has proposed, Covad believes that additional language (set out in
19 my Direct Testimony) should also be included. So it is not a fair characterization for Ms.
20 Stewart to state that the parties have agreed upon notice language when there is an ongoing
21 dispute about Section 9.1.15.

22 More importantly, 47 C.F.R. § 51.327 prescribes the "minimum" standards notices of
23 network changes. Qwest's copper retirement notices do not meet these "minimum" standards.

For instance, notices must, according to the rule, include the "location(s) at which the changes will occur"[11] as well as the "reasonably foreseeable impact of the planned changes."[12]

Qwest chooses to read these requirements in an unreasonably narrow fashion, and has declined to provide such vital information as what Covad customers, if any, will be impacted by the retirement project. The vague notices issued by Qwest (see Exhibit MZ-3, attached to my Direct Testimony) are useful only as a starting point for a major research project to determine whether a given retirement will impact Covad's customers. In response to each and every notice of a copper retirement project, Covad would have to determine whether any of its customers would actually be affected and it is not even clear that, with the information provided, we can actually do that.

Any notice that can be read to comply with the FCC's rules must specifically inform competitive LECs whether the retirement threatens service to its existing customers. The FCC rule clearly places the burden on ILECs to determine the "reasonably foreseeable impact" of its retirements. Qwest's interpretation of this language, which would not require specific notice of the customers affected, is so devoid of substance that it must be rejected as an unreasonable interpretation of the rule.

Furthermore, the FCC's rules regarding network modifications clearly require a description of the type of changes planned (Information provided to satisfy this requirement must include, as applicable, but is not limited to, references to technical specifications, protocols, and standards regarding transmission, signaling, routing, and facility assignment as

[11] 47 C.F.R. § 51.327(a)(4).
[12] 47 C.F.R. § 51.327(a)(6).

well as references to technical standards that would be applicable to any new technologies or equipment, or that may otherwise affect interconnection)...[13]

Covad's notice proposals embody this requirement, by specifying that notices contain information regarding "old and new cable media, including transmission characteristics; circuit identification information; and cable and pair information."[14] Covad believes the information it seeks, and which Qwest refuses to provide, is clearly within the scope of the FCC rule. Not only is it within the scope of the rule, it is necessary to lend any meaning whatsoever to the notice requirement. And as stated in my Direct Testimony, there is nothing burdensome about requiring Qwest to provide the categories of information specified by Covad. Qwest has this information in its possession; it just chooses not to share it.

Q. YOU STATED THAT ANY INVESTIGATION OF THE QWEST COPPER RETIREMENT NOTICES WOULD BE A "MAJOR RESEARCH PROJECT." PLEASE ELABORATE.

A. Qwest has suggested elsewhere that it would be relatively simple for Covad to determine what kind of impact to its customer base would result from a copper retirement notice. That statement is flat out wrong.

We took a December 9, 2004 copper retirement notice from Qwest – attached hereto as Exhibit MZ-9 which is network disclosure announcement #511. Per Ms. Stewart's testimony in the Utah arbitration, we first contacted the three individuals identified on the notice and attachment (Eric Yohe, Elena Donaghy and Shirley Tallman) since Ms. Stewart represented that those individuals would be able to answer additional questions that we might have regarding Covad specific impacts. Only one of the three points of contact responded,

[13] 47 C.F.R. § 51.327(a)(5).
[14] Covad Proposed Section 9.1.15.

1 and even then was not able to provide any information regarding Covad-specific impacts,
2 directing Covad instead to use Qwest's raw loop data tool.

3 Based on Qwest's refusal to provide any information about Covad-specific impacts,
4 Covad then undertook the effort, for just one of the retirements identified (there are a total of
5 32 retirements identified on just this one notice), to determine whether there were any impacts
6 to Covad's customer base. For just one of the thirty two retirements identified, it took 4 man
7 hours to determine that there were no impacts to Covad's customer base. If Covad were
8 required to review all 32 impacted central offices included in just this one notice, it would
9 take 128 hours (i.e. sixteen 8 hour days) to determine if there were any impacts at all.

10 Clearly, foisting this enormous burden onto Covad is unreasonable and inappropriate
11 when Qwest can easily determine the carriers and services impacted by a copper retirement.[15]
12 It appears that, despite the ease with which this information can be provided, Qwest has
13 subsequently determined it will no longer provide this information. I say this based upon Ms.
14 Stewart's testimony at hearing in the Utah arbitration proceeding between Covad and Qwest
15 in December 2004, in which she stated that Qwest's retirement notice process "has evolved,"
16 and Qwest no longer provides information regarding a retirement's impact on the CLEC
17 community.[16] The unreasonableness of Qwest forcing CLECs to undertake this enormous
18 effort is only underscored when one considers the fact that Qwest generally would have

[15] An e-mail from Shirley Tallman of Qwest to Elizabeth Balvin of Covad explains the process that Qwest can undertake to identify CLEC lines impacted by a retirement. This e-mail is attached to my direct testimony as Exhibit MZ-5.

[16] Utah Public Service Commission Docket No. 04-2277-02, *In the Matter of the Petition of DIECA Communications, Inc., D/B/A Covad Communications Company, for Arbitration to Resolve Issues Relating to an Interconnection Agreement With Qwest Corporation*, Hearing Transcript (December 8, 2004) at Page 125, line 9 through 126, line 6. A copy of this portion of the Utah transcript is attached to my testimony as Exhibit MZ-10.

several months to determine what, if any, impacts exist, whereas CLECs might have as few as 9 business days.[17]

Q. WHY DO YOU SAY THAT QWEST MIGHT HAVE SEVERAL MONTHS TO DETERMINE THE IMPACTS OF A COPPER RETIREMENT?

A. The copper feeder that Qwest is retiring is virtually always the result of routine network maintenance or requirements for additional POTS capacity. Given my thirty years' experience with Qwest (formerly US WEST) and its network planning processes, it would take a minimum of 6 months, and more typically over 12 months, for Qwest to (1) determine that a particular feeder route should be retired; (2) seek the level of approval necessary for the kind of capital expenditure that a copper retirement with fiber replacement would require; and (3) implement the copper retirement with feeder replacement. It is beyond dispute that a part of this planning process would include a determination of the impacts on Qwest's retail customers which, according to Ms. Stewart, could easily include an identification of CLEC customer impacts – and all of which could be done with enough time to allow for alternative services to be provide to both retail and wholesale customers. Rather than do this, though, Qwest chooses to provide so little information to, and impose such a significant burden on CLECs as to make the notices Qwest provides worthless.

When Qwest feels there is a need to make a significant capital expenditure in the existing network, they undertake a study to evaluate multiple alternatives including what is called "PMO" or present method of operation and compares the results of the study prior to submitting the proposal for approval. The following elements are taken into consideration when performing what used to be called a "CUCRIT" (capital utilization criteria) evaluation:

[17] 47 C.F.R. § 51.333(c).

PMO Data
-Current Revenue
-Current Expense
-Regulatory Requirements

Alternative (S) Data
-Estimated Expense (Savings Over PMO)
-Estimated Revenue (Additional Due To New Service Or Possibly Acquisition Of Competitors Customers)
-Capital Requirement
-Regulatory Requirements

The CUCRIT study can then vary things like the time periods, cost of money and inflation rates to determine the best proposal based upon the resulting NPVS. Covad's proposal would simply require that Qwest include a small negative amount in the expense category to account for any additional cost they may incur for providing us with an alternative service. When a typical feeder replacement would result in a capital expenditure in excess of $1,000,000 it is quite obvious that a small expense like the continuance of Covad service would have little impact on this type of decision. Further, expense savings could easily amount to over $50,000 a year.

ISSUE 5 – REGENERATION: SHOULD QWEST PROVIDE REGENERATION BETWEEN CLEC COLLOCATIONS, AND WHAT, IF ANYTHING, SHOULD QWEST BE ALLOWED TO CHARGE COVAD FOR REGENERATION?
(Sections 8.2.1.23.1.4 [proposed]; 8.3.1.9 [proposed]; and 9.1.10 [propose deletion])

Q. MR. NORMAN PROFESSES SOME CONFUSION AS TO COVAD'S PROPOSAL ON THE REGENERATION ISSUE. CAN YOU CLARIFY COVAD'S POSITION?

A. Covad's position on regeneration is that Qwest must provide CLEC to CLEC cross-connects with regeneration (where necessary) as a wholesale service on the same rates, terms and conditions as for ILEC to CLEC cross-connects, and not as a retail tariff finished service. Further, Covad believes that, from a pricing standpoint, CLEC to CLEC cross-connects with

regeneration should be treated precisely like the pricing for ILEC to CLEC regeneration. I have set out Covad's revised language on this issue below:

> 8.2.1.23.1.4 CLEC is responsible for the end-to-end service design that uses ICDF Cross Connection to ensure that the resulting service meets its Customer's needs. This is accomplished by CLEC using the Design Layout Record (DLR) for the service connection. Depending on the distance parameters of the combination, regeneration may be required. Qwest shall assess charges for CLEC to CLEC regeneration, if any, on the same terms and conditions, and at the same rates as for ILEC to CLEC regeneration.
>
> 8.3.1.9 Channel Regeneration Charge. Required when the distance from CLEC's leased physical space (for Caged or Cageless Physical Collocation) or from the collocated equipment (for Virtual Collocation) to the Qwest network ("ILEC to CLEC regeneration"), to CLEC's non-contiguous Collocation space ("CLEC to CLEC regeneration"), or to the Collocation space of another CLEC ("CLEC to CLEC regeneration") is of sufficient length to require regeneration based on the ANSI Standard for cable distance limitations. Channel Regeneration Charges shall not apply until the Commission approves a wholesale Channel Regeneration Charge. After approval of such charge, Channel Regeneration Charges shall be assessed for ILEC to CLEC and CLEC to CLEC regeneration on the same terms and conditions, and at the same rates. If CLEC requests Channel Regeneration in spite of the fact that it is not required to meet ANSI standards, Qwest will provide such regeneration and CLEC will pay the Channel Regeneration Charge described herein.

Q. DO YOU KNOW HOW THE ARIZONA COMMISSION HAS RESOLVED THE PRICING OF ILEC TO CLEC REGENERATION?

A. Yes. As set out in my Direct Testimony, Qwest has been precluded from charging for ILEC to CLEC regeneration at this time. From Covad's perspective and according to its proposal, Qwest should not be permitted to charge for CLEC to CLEC regeneration unless and until the Commission permits it to charge for ILEC to CLEC regeneration.

Q. PLEASE PROVIDE SOME TECHNICAL BACKGROUND REGARDING THE NEED FOR REGENERATED CLEC TO CLEC CROSS CONNECTIONS.

A. Just as with ILEC-CLEC cross-connect regeneration, CLEC to CLEC cross-connect regeneration is a function of distance and time. It is a function of distance because as a signal travels across a cable, the signal strength weakens and thus may require regeneration, or boosting, to maintain the appropriate technical parameters. It is a function of time because two CLECs that collocated in 1999 in contiguous or adjacent space and who have a cross-connect may not require regeneration, but a cross-connect between one of the 1999 collocators and a 2004 collocator several floors and linear feet away may require regeneration. Note that the 2004 collocator likely will be placed in a location farther away than a 1999 collocator because all of the collocation spaces near the 1999 collocator where taken by other CLECs that collocated prior to the 2004 CLEC.

In the case of Qwest and the 2004 collocator, regeneration would currently be provided at no charge. However, the same does not hold true if the 2004 collocator wishes to cross-connect with the 1999 collocator. In the latter scenario, the 2004 collocator would have to pay for regeneration, which results in the 2004 collocator being penalized for being later in time in the form of additional costs of which Qwest and other CLECs remain free. That is an unfair, discriminatory result and should not be permitted by the Commission.

In addition, because Qwest does not charge for ILEC to CLEC regeneration, Qwest has created a pricing advantage for itself in providing services to collocating CLECs, most notably services that may otherwise be competitive, like high capacity transport.

Q. MR. NORMAN CITES TO SOME TESTIMONY OF REX KNOWLES IN THE ARIZONA COST PROCEEDING AT PAGES 9-10 OF HIS DIRECT TESTIMONY TO SUPPORT THE QWEST LITIGATION POSITION THAT QWEST PLACES CLECS CLOSE TOGETHER. PLEASE RESPOND.

A. In the first place, Mr. Knowles is not employed by or a consultant to Covad (he is an employee of XO), nor was Mr. Knowles representing Covad in that Arizona cost proceeding despite Mr. Norman's vague reference to him as a "CLEC representative." Further, while I know who Mr. Knowles is, I have limited knowledge of his specific background or experience with the Qwest network or in Qwest central offices and therefore cannot speak to the accuracy of his statement. What I can say, however, is that my testimony here, and the need for regeneration is based on my very extensive, first-hand and personal experience rolling out the Covad network in the Qwest region. When doing this, I was in Qwest central offices on a virtually daily basis and know precisely what I am talking about. My experience confirms that CLEC to CLEC regeneration is a very real issue and must be addressed.

Q. MR. NORMAN STATES AT PAGE 10 THAT "COVAD'S PROPOSED LANGUAGE HAS NO SUSTAINABLE BASIS IN LAW." DO YOU AGREE WITH MR. NORMAN'S INTERPRETATION OF QWEST'S LEGAL OBLIGATIONS?

A. I do not. Qwest must perform CLEC to CLEC cross-connects as required by FCC rules. Indeed, as the FCC stated in its Fourth Report and Order,

> We find that pursuant to Section 201 that it would be unjust and unreasonable for an incumbent LEC to refuse to provision cross-connects between collocated competitive LECs. We also find that, in the alternative, such a refusal would be unjust, unreasonable and discriminatory within the meaning of Section 251(c)(6).[18]

At its most fundamental, this issue is not whether Qwest must provide CLEC to CLEC cross-connects (Qwest surely has to agree that it must do so), but rather whether Qwest must provide regeneration for that CLEC to CLEC cross-connect in order to ensure that the signal

1 traveling from one CLEC collocation space to a different collocation space maintains the
2 appropriate specifications. I believe that law, logic and technical issues dictate that Qwest is
3 under an obligation to provide CLEC to CLEC regeneration on the same terms and conditions
4 as for ILEC to CLEC regeneration.

5 **Q. WHAT LAW AND LOGIC ARE YOU RELYING UPON?**

6 A. While I am not a lawyer, my understanding is that the FCC's Fourth Report and Order makes
7 very clear what Qwest's obligations are with respect to CLEC to CLEC cross-connects and,
8 by extension, CLEC to CLEC regeneration. In the Fourth Report and Order, the FCC
9 reconfirmed the fact that ILECs must provision cross-connects for CLECs[19] or, at a minimum,
10 allow CLECs to self-provision those cross-connects. [20]

11 More importantly, for purposes of resolving the regeneration dispute, the FCC made
12 clear that this legal requirement to provision CLEC cross-connects was made pursuant to
13 Section 251(c)(6) of the Act. What this means from a decisional perspective is key. Section
14 251(c)(6) is the section of the Act that addresses collocation and which affirmatively requires
15 that ILECs permit CLECs to collocate in a central office in order to interconnect with other
16 carriers and to access UNEs. There is no doubt that ILEC to CLEC cross-connects are
17 designed specifically to meet these statutory purposes. And since the FCC grounded its

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[18] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, FCC 01-204, Fourth Report and Order (2001) at ¶ 59.

[19] *Id.*

[20] Interestingly, the entirely of the FCC's discussion on this issue was not whether allowing CLECs to provision cross-connects themselves relieved ILECs of the obligation to provision cross-connects for CLECs (which is what Qwest suggests) but rather addressed the fact that the FCC could not *require* ILECs to permit CLECs to self-provision CLEC to CLEC cross-connects. Regardless of whether Qwest can avoid provisioning the cross-connect itself by allowing CLECs to self-provision a cross-connect, the FCC's conclusion that Section 251 gave it the authority to require Qwest to provision CLEC to CLEC cross-connects ultimately means that any such cross-connect must be practically, realistically and technically the same as an ILEC to CLEC cross-connect. If not, then Qwest has failed to comply with the non-discrimination requirements of Section 251. In real world terms, this means that the CLEC to CLEC cross-connect must be made available on the same rates, terms and conditions as ILEC to CLEC cross-connects.

1 authority to require CLEC to CLEC cross-connects in Section 251(c)(6), CLEC to CLEC
2 cross-connects likewise are designed to fill the same purposes and must have all the same
3 attributes and properties, such as regeneration, that an ILEC to CLEC cross-connect would
4 have.

5 A fundamental fact underlying regeneration is that it is generally provided to ensure
6 that carriers can actually interconnect and access UNEs at applicable industry standards. As a
7 consequence, since CLEC to CLEC cross-connects serve the identical purpose as an ILEC to
8 CLEC cross-connect, they should be supplied with regeneration (just as an ILEC to CLEC
9 cross-connect is) when necessary to ensure appropriate technical signals on the same rates,
10 terms and conditions.

11 The FCC left no room for question on this point. Because a Section 251(c)(6)
12 obligation carries with it the obligation that Qwest act in a non-discriminatory manner when
13 provisioning collocation elements such as cross-connects, Qwest cannot provide a particular
14 service, like regeneration, for one Section 251(c)(6) cross-connect (here, ILEC to CLEC
15 cross-connects) and then refuse to provide regeneration on the same rates, terms and
16 conditions for another type of Section 251(c)(6) cross-connect (here, CLEC to CLEC cross-
17 connects). To find otherwise would result in collocation, interconnection and access to UNEs
18 that is different from (i.e. inferior) to the quality of the interconnection and access Qwest
19 accords to itself and therefore would be discriminatory. Moreover, since the FCC has already
20 previously defined the requirement of "equal in quality" interconnection as a requirement that
21 Qwest design interconnection facilities to meet the *same technical criteria and service*

1 *standards, including transmission standards*, that are used within the Qwest network[21], there
2 is no legitimate or good faith reason to treat CLEC to CLEC regeneration on different rates,
3 terms and conditions than an ILEC to CLEC regeneration.

4 **Q. MR. NORMAN APPEARS TO CLAIM AT PAGE 4 OF HIS DIRECT TESTIMONY**
5 **THAT THE KEY DIFFERENCE BETWEEN ILEC TO CLEC REGENERATION**
6 **AND CLEC TO CLEC REGENERATION IS DRIVEN BY THE FACT THAT IN THE**
7 **FORMER SCENARIO, CLECS ARE ACCESSING THE QWEST NETWORK WHILE**
8 **IN THE LATTER SCENARIO THEY ARE NOT. PLEASE EXPLAIN WHY MR.**
9 **NORMAN'S STATEMENT IS INACCURATE AND MISLEADING.**

10 A. Mr. Norman appears to be making the case that it should be free to charge retail rates for
11 CLEC to CLEC regeneration because in that scenario the CLEC is not using the Qwest
12 network. That is just not accurate. There is absolutely no certainty that the CLEC to CLEC
13 cross-connect for which regeneration is required is to allow Covad to access the transport
14 facilities of another carrier as Mr. Norman suggests. To the contrary, the regeneration may be
15 required to connect two Covad collocation spaces, both of which currently do utilize Qwest's
16 own transport network. And even if the cross-connect was between Covad and another CLEC
17 collocator, it is not necessarily a given that the other CLEC would not use the Qwest transport
18 network.

19 More importantly, Mr. Norman's testimony ignores a key fact – regardless of whom
20 Covad or the other cross-connecting CLEC is using for its transport needs, Covad and that
21 CLEC are both using the Qwest network to provide service to their own end user customers.
22 For instance, regardless of who provides transport for Covad, Covad is still using UNE loops,

[21] *Local Competition Order*, ¶224.

UNE interconnection tie pairs, Qwest network power and so on and so forth in order to provide service to its customers. Thus, under any circumstance, Covad is using services from the Qwest "network (e.g. unbundled loops) and which are purchased through the ICA" and for which Qwest receives compensation from Covad.

Q. YOU ALSO MENTIONED THAT THERE ARE TECHNICAL REASONS FOR REQUIRING QWEST TO PROVIDE THE REGENERATION RATHER THAN CLECS, AS QWEST SUGGESTS SHOULD OR COULD HAPPEN.

A. Let me provide a little context here. Qwest has stated that it will make available regeneration as a finished service rather than as a wholesale product subject to TELRIC pricing standards and the review of this Commission. As I explained above, that would violate Qwest's obligations under Section 251, and as I explained in my Direct Testimony, is cost-prohibitive.

Qwest poses as an alternative that CLECs provide regeneration themselves, either as the signal leaves the collocation of one CLEC, as it arrives at the second collocation space, or at both ends of the cross-connection. Again, as I explained in my Direct Testimony at pages 44 and 45, the most technologically efficient and cost-effective way to regenerate a signal is via a mid-span boost, which is precisely what Qwest does when regeneration is required for an ILEC to CLEC cross-connect. In fact, if the cable length that will be used to provide a DS3 circuit exceeds about 600 feet, which is fairly common in large multi-floor central offices, regeneration **must** be done at a mid-point and cannot possibly be transmitted at a high enough level to reach the other end without risking "bleed over" into adjacent cabling.

Q. WHAT DO YOU MEAN WHEN YOU SAY THE SIGNAL WILL "BLEED OVER" INTO ADJACENT CABLING?

A. What I mean is that the Covad-regenerated signal would cause digital cross-talk and lead to spectrum interference with the signals being transmitted over all adjacent transmission cables using the same cable racking, such that the signals transmitted by other carriers are completely "scrambled." In other words, the Covad-regenerated signal would disrupt the communications network of those carriers, which may also include Qwest. Just as there are specifications requiring regeneration over certain cable lengths, there are also specifications around how high a signal level can be transmitted in order to maintain the integrity of the network.

Q. OBVIOUSLY REGENERATION IN THE COLLOCATION SPACE IS OFTEN IMPOSSIBLE AND WILL LEAD TO SIGNIFICANT PROBLEMS. COULD COVAD AVOID THESE PROBLEMS BY PROVIDING MID-SPAN REGENERATION?

A. It is not possible for a CLEC to provide mid-span regeneration. In the first place, it would require the construction of an entirely new collocation space and the placement of regeneration equipment. In other words, it would cost a CLEC a minimum of ***BEGIN CONFIDENTIAL [redacted] END CONFIDENTIAL*** just in collocation costs to be able to provide mid-span regeneration and take up to 130 days before such capability would be available. The time and cost associated with regeneration of one, single cross-connect makes it utterly infeasible. No carrier, Qwest or CLEC, can afford to waste time and capital in such a fashion.

Further, it is unclear to me whether a CLEC actually could provide mid-span regeneration. Based on my years of experience in Qwest central offices, the mid-span point could fall in a location in the central office to which CLECs do not have access (i.e. a

switching equipment room or an MDF or COSMIC frame). In this case, even if a CLEC were inclined to do so, it would be precluded from providing its own mid-span regeneration.

Q. EVEN ASSUMING THAT THERE WERE NO TECHNICAL FACTORS PRECLUDING REGENERATION WITHIN A CLEC'S EXISTING COLLOCATION, ARE THERE COST AND TIME BARRIERS ASSOCIATED WITH THIS SOLUTION?

A. Yes. In order to accommodate the regeneration equipment, Covad would have to augment its collocation space in order to add the equipment. Assuming contiguous space is available (which may not be the case), Covad again would incur between *****BEGIN CONFIDENTIAL** [redacted] **END CONFIDENTIAL***** and it would take approximately 130 days to get the space up and running. As I already stated, this is just not a realistic or feasible solution. It is also discriminatory, because collocation would be available only on terms, both technical and financial, that are clearly inferior to that Qwest makes available to itself.

Q. MR. NORMAN STATES ON PAGES 4 AND 5 THAT IN A CLEC-TO-CLEC CONNECTION, QWEST HAS NO CONTROL OVER OR INVOLVEMENT WITH THE FACILITIES, IS THIS TRUE?

A. Absolutely not. Qwest has a great deal of control over the placement of CLECs in collocation spaces within the central office. While I agree that Qwest currently provisions collocation requests on a first come, first served basis, Qwest reserves space for itself prior to consideration of CLEC applications, which results in Qwest's ability to dictate all of the locations that will then be available to CLECs for collocation. A first come, first served policy does not overcome the space reservation and allocation decisions Qwest has already

1 made; it simply allows the CLEC to take the best of the space that remains available at the
2 time it submits its application. Consequently, before collocators even enter the picture, Qwest
3 has already made some critical decisions that may result in regeneration being required by
4 CLECs. There is nothing that a CLEC can do about that.

5 **Q. WHAT ABOUT THE FACT THAT COVAD CAN DO A WALK THROUGH AHEAD**
6 **OF TIME AND REQUEST THAT IT BE PLACED IN A PARTICULAR LOCATION**
7 **IN A CENTRAL OFFICE?**

8 A. As I stated above, while Qwest provisions collo applications on a first come, first served basis
9 and permits CLECs to do a walk through to evaluate space, these activities only occur *after*
10 Qwest has made its own space allocation and reservation decisions to most effectively meet
11 its needs. As I stated above, this right does not undo or overcome decisions Qwest has
12 *already made* with respect to where it will place its own equipment and reserve space for
13 future growth. Now, if a walk through were to result in Qwest relinquishing its own currently
14 used or reserved space to a CLEC, then I might be inclined to agree with Mr. Norman's
15 testimony. But, since that is not the case and CLECs must simply select the best of Qwest's
16 "leftovers", I fundamentally disagree with Mr. Norman's suggestion that CLECs control space
17 allocation decisions.

18 **Q. IS MR. NORMAN'S STATEMENT ON PAGE 5 THAT "QWEST'S ABILITY TO**
19 **CHARGE A MARKET RATE ENCOURAGES THE CLEC TO INVEST IN ITS OWN**
20 **FACILITIES" REALISTIC?**

21 A. No.

22 **Q. WHY NOT?**

A. At a minimum, Mr. Norman's statement ignores reality. Two CLECs cross-connecting within a central-office are, by definition, facilities-based CLECs. In the case of Covad, for example, we've already collocated the facilities that allow our network to function. No further incentive is required, since we are already facilities-based. In reality, the Qwest position is a barrier to investment. If CLECs are required to connect to one another where regeneration is required using Qwest's proposal, it is highly unlikely that other CLECs will find it economically feasible to pay Qwest for a finished service to have access to the network of a competitive facility provider. This fact will make facilities-based CLECs less inclined to build additional capacity into their networks.

Q. HAS THE FCC CONSIDERED THE COMPETITIVE EFFECTS OF ILEC POLICIES REGARDING CLEC-TO-CLEC CROSS-CONNECTS?

A. Yes. In ruling that ILECs were required to provide central office cross-connects between CLECs, despite the fact that ILECs were not required to allow CLECs to *self-provision* these cross-connects, the FCC said that:

> if an incumbent LEC refuses to provision cross-connects between competitive LECs collocated at the incumbent's premises, the incumbent would be the only LEC that could interconnect with all or even any of the competitive LECs collocated at a common, centralized point – the central office.[22]

The FCC went on to explain that this would have a negative effect on the availability of competitive transport options for CLECs,[23] and that allowing central office cross-connects

[22] *Fourth Report and Order*, ¶ 63.
[23] *Id.*

between CLECs is essential to the development of a competitive market for transport services.[24]

Even if CLECs have the option to self-provision a cross-connect (something the ILECs opposed at the time the Fourth Report and Order was written), ILECs must allow these cross-connections on non-discriminatory terms. If they do not, they create the exact competitive problems the FCC intended to solve in the Fourth Report and Order. For instance, if the cross-connect can only be accomplished in a way that is cost-prohibitive, while cross-connection to Qwest is readily available at reasonable rates, Qwest has an unfair pricing advantage over its competitors in the wholesale transport market, as well as other markets, and carriers are more likely to purchase Qwest's services.

I'll provide an example: suppose Covad had the option of aggressively partnering with a voice CLEC to jointly provide a data and voice bundle to customers. At the same time, Covad could partner with Qwest to provide a similar bundled service through a commercial agreement. If a CLEC-to-CLEC cross-connect is available only at inflated Qwest retail rates, Qwest would be the only viable partner.

Q. MR. NORMAN SUGGESTS, BEGINNING AT THE BOTTOM OF PAGE 7 THAT CLECS SHOULD ORDER A "FINISHED SERVICE" IN THE FORM OF A PRIVATE LINE OR ACCESS SERVICE WHEN THE CLEC COLLOCATIONS ARE SO FAR APART THAT REGENERATION IS REQUIRED. IS THIS A VIABLE ALTERNATIVE?

A. As a matter of principle, section 251(c)(6) of the Act requires a non-discriminatory, wholesale service offering based on the same pricing standards that apply to other wholesale collocation

[24] *Id.*, ¶ 65.

1 elements. As a practical matter, any product priced at a reasonable level will alleviate most of
2 the discrimination experienced by Covad. In Utah, Mr. Norman testified that Qwest's
3 federally tariffed EICT product is a reasonably priced, viable alternative. This could be the
4 case today, but without this Commission's ruling that CLEC to CLEC cross connections with
5 regeneration are required wholesale offerings, Qwest can unilaterally raise these rates,
6 discontinue the service, or otherwise change the terms of the EICT offering. The Commission
7 can prevent this by confirming Qwest's obligation to provide the cross connection pursuant to
8 251(c)(6).

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

10 A. Yes, it does.

11

Exhibit MZ-8

AZ Wholesale DSL Pricing Exhibit

Following are the Qwest DSL related products and services that are available for CLECs who wish to purchase Qwest DSL network services on a wholesale basis that will allow for CLEC branding. The following services do not include customer premises CPE (e.g. modems) or the ISP charges associated with providing an end to end DSL service. These wholesale products are for the network portion of DSL service only.

Product	Description	Retail Rate/RC	Retail Rate/ NRC	AZ Resold Rate* RC/NRC
Qwest Choice DSL™ (only available in conjunction with Qwest resold voice service)	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated Digital Subscriber Line Access Multiplexer (DSLAM) port located at the serving Central Office (CO) or a Remote Terminal (RT) and provides up to 256 kilobits per second (Kbps) bi-directional data rates.	**$15.00**	**$99.00**	**$12.30/$81.18**
Qwest DSL 640K (only available in conjunction with Qwest resold voice service)	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the serving CO or RT and provides downstream data rates up to 640 Kbps and up to 256 Kbps upstream.	**$28.00**	**$99.00**	**$22.96/$81.18**
Qwest Choice DSL Deluxe™ (only available in conjunction with Qwest resold voice service)	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the serving CO or RT and provides for downstream data rates up to 1.5 Mbps and up to 1 Mbps upstream.	**$28.00**	**$99.00**	**$22.96/$81.18**
Qwest Choice DSL Deluxe™ (Does not require the purchase of any Qwest voice	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the	**$33.00**	**$99.00**	**$27.06/$81.18**

AZ Wholesale DSL Pricing Exhibit

services.)	serving CO or RT and provides for downstream data rates up to 1.5 Mbps and up to 1 Mbps upstream. This is commonly called Stand Alone DSL or "Naked DSL".			
Qwest DSL Pro™ 640K (only available in conjunction with Qwest resold voice service)	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the serving CO or RT and provides bi-directional data rates up to 640 Kbps upstream and downstream with professional enhancements including SLAs.	**$66.00**	**$99.00**	**$54.12/$81.18**
Qwest DSL Pro 1M (only available in conjunction with Qwest resold voice service)	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the serving CO or RT and provides for downstream data rates up to 1.024 megabits per second (Mbps) and up to 1 Mbps upstream with professional enhancements including SLAs.	**$88.00**	**$99.00**	**$72.16/$81.18**
Qwest DSL Pro 4M (only available in conjunction with Qwest resold voice service)	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the serving CO or RT and provides for downstream data rates up to 4 Mbps and up to 1 Mbps upstream with professional enhancements including SLAs.	**$165.00**	**$99.00**	**$135.30/$81.18**

Exhibit MZ-8

AZ Wholesale DSL Pricing Exhibit

Qwest DSL Pro 7M (only available in conjunction with Qwest resold voice service)	This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the serving CO or RT and provides for downstream data rates up to 7 Mbps and up to 1 Mbps upstream with professional enhancements including SLAs.	**$275.00**	**$99.00**	**$225.50/$81.18**
Qwest Integrated Services Digital Network Digital Subscriber Line (Qwest IDSL) (Does not require the purchase of any Qwest voice services.)	This is a network configuration allowing only data services. This service utilizes a CLEC provided modem at the end-user's premises and a Qwest dedicated DSLAM port located at the serving CO or RT and providing up to 144 Kbps both upstream and downstream.	**$69.95**	**$99.00**	**$57.36/$81.18**

*The AZ wholesale discount of 18.0% was used to create the resold rate.

Exhibit MZ-9

December 9, 2004

Elizabeth Balvin
Covad Communications Company
7901 Lowry Blvd.
Denver, CO 80230
EBalvin@covad.com

TO:Elizabeth Balvin

Announcement Date:	**December 9, 2004**
First Effective Date:	**December 30, 2004**
Document Number:	**NETW.12.09.04.B.000577.Copper_Retirements**
Notification Category:	**Network Notification**
Target Audience:	**CLEC's and ILECs**
Subject/Product Name:	**Copper Retirements in AZ, CO, ID, MN, MT, NE, NM, and OR**

Please route this notice to those in your company who have responsibility for the maintenance and implementation of your telecommunications network.

The attached Network Disclosure Announcement reflects the availability in certain areas of Qwest Communications to deliver new or augmented services.

If you have any questions or would like to discuss this notice please contact your Qwest Sales Manager, Elena Donaghy on (559) 434-9754 or your Qwest Service Manager, Eric Yohe on (303) 382-2678. Qwest appreciates your business and we look forward to our continued relationship.

Sincerely,

Qwest

Note: In cases of conflict between the changes implemented through this notification and any CLEC interconnection agreement (whether based on the Qwest SGAT or not), the rates, terms and conditions of such interconnection agreement shall prevail as between Qwest and the CLEC party to such interconnection agreement.

The Qwest Wholesale Web Site provides a comprehensive catalog of detailed information on Qwest products and services including specific descriptions on doing business with Qwest. All information provided on the site describes current activities and process. Prior to any

Exhibit MZ-9

modifications to existing activities or processes described on the web site, wholesale customers will receive written notification announcing the upcoming change.

If you would like to unsubscribe to mailouts please go to the ?Subscribe/Unsubscribe? web site and follow the unsubscribe instructions. The site is located at:

http://www.qwest.com/wholesale/notices/cnla/maillist.html

cc: Elena Donaghy
Eric Yohe

Qwest Communications 1600 7th Ave Room 1806 Seattle WA 98008

Exhibit MZ-9

700 West Mineral
Littleton, CO. 80120

Qwest

Network Disclosure Announcement No. 511

Public Notice of Network Change(s). Pursuant to CFR 47. subsections 51.325 - 51.335.
Qwest's Internet address: http://www.qwest.com/disclosures.

Copper Retirements in Arizona, Colorado, Idaho, Minnesota, Montana, Nebraska, New Mexico & Oregon

First Implementation Date: **December 30, 2004** (Due to maintenance issues – Pls See AZ Entry; Due to construction schedule – Pls see AZ Entry; Due to maintenance and service issues – Pls see MN Entry)
January 7, 2005 (Due to construction damage – Pls See AZ Entry)
January 10, 2005 (Due to maintenance and service issues – Pls See AZ Entry)
January 14, 2005 (Due to maintenance and service issues – Pls See NM Entry)
January 31, 2005 (Due to service issues – Pls See MT Entry)

Network Notices will be sent out to all affected CLECs associated with this specific copper retirement in addition to this Network Disclosure filing.

Other Implementation Dates: Range from March 13, 2005 – June 15, 2005

Original Date Posted: December 8, 2004

Summary: Copper Retirements are necessary to respond to various factors in the Outside Plant, including road construction, maintenance problems, and growth accommodation. Replacement cables may be either copper or fiber. Specific information will be provided with each disclosure.

Locations, Timing of Deployments & Interface Requirements: The following gives additional details on the copper retirement(s):

1	**STATE**	ARIZONA
	WIRE CENTER	CRAYCROFT
	8-CHARACTER CLLI	TCSNAZCR
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	310571
	FDI Address(es)	5455 E COMANCHE
	Replacing	CABLE
2	**STATE**	ARIZONA
	WIRE CENTER	FLAGSTAFF
	8-CHARACTER CLLI	FLGSAZSO
	COMPLETION DATE/PLANNED RETIREMENT DATE	30-Dec-04
	DA (s)	210431
	FDI Address(es)	X 20 RL27
	Replacing	CABLE, DUE TO MAINTENANCE ISSUES

3	STATE	ARIZONA
	WIRE CENTER	HIGLEY
	8-CHARACTER CLLI	HGLYAZMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	410121
	FDI Address(es)	X 15620 S RECKER RD
	Replacing	PART OF DA 410121 WILL BE CUT TO DA 410617 TO BE SERVED FROM FIBER NODE/USAM X 3590 E PECOS RD. THE CURRENT ROUTE IS 2.8 MILES OF MIXED GAUGE.(ALL COPPER FROM CO). THE NEW ROUTE WILL BE LESS THAN 2400 FT 24 GAUGE FROM THE RT TO THE LONGEST LOOP. THIS CUT WILL COVER THE AREA NORTH OF PECOS RD TO SARAGOSA ST, 172 ST TO 173 WY.
4	STATE	ARIZONA
	WIRE CENTER	PHOENIX NE
	8-CHARACTER CLLI	PHNXAZNE
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	310561
	FDI Address(es)	4201 E FLOWER ST
	Replacing	DEFECTIVE LEAD CABLE
5	STATE	ARIZONA
	WIRE CENTER	PHOENIX SE
	8-CHARACTER CLLI	PHNXAZSE
	COMPLETION DATE/PLANNED RETIREMENT DATE	10-Jan-05
	DA (s)	115731
	FDI Address(es)	3292 S 36TH ST
	Replacing	CABLE, DUE TO MAINTENANCE & SERVICE ISSUES
6	STATE	ARIZONA
	WIRE CENTER	SUPER MAIN
	8-CHARACTER CLLI	SPRSAZMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	15-Mar-05
	DA (s)	412421
	FDI Address(es)	8401 E EMELITA AV
	Replacing	Abandon cables on adot property to allow construction of the red mountain fwy (202) at southern ave and 88th St. There will be no working circuits in the cables.
7	STATE	ARIZONA
	WIRE CENTER	TEMPE
	8-CHARACTER CLLI	TEMPAZMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	30-Dec-04
	DA (s)	411331
	FDI Address(es)	2021 W RIO SALADO PKWY
	Replacing	CABLE, DUE TO CONSTRUCTION SCHEDULE
8	STATE	ARIZONA
	WIRE CENTER	YUMA
	8-CHARACTER CLLI	YUMAAZSE
	COMPLETION DATE/PLANNED RETIREMENT DATE	07-Jan-05
	DA (s)	420321
	FDI Address(es)	X 2100 W 32 ST
	Replacing	CABLE, DUE TO CONSTRUCTION DAMAGE
9	STATE	COLORADO
	WIRE CENTER	CANON CITY

	8-CHARACTER CLLI	CACYCOMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	211425
	FDI Address(es)	X 202 FIELD
	Replacing	CABLE, DUE TO MAINTENANCE ISSUES
10	STATE	COLORADO
	WIRE CENTER	CANON CITY
	8-CHARACTER CLLI	CACYCOMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	20-Mar-05
	DA (s)	311681
	FDI Address(es)	X 1328 SHERMAN; X 1498 CHESTNUT
	Replacing	AERIAL CABLE - WATER DAMAGE
11	STATE	COLORADO
	WIRE CENTER	DENVER
	8-CHARACTER CLLI	DNVRCONO
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	410585
	FDI Address(es)	X 1551 PLATTE
	Replacing	THIS PROJECT WILL ALLOW CONSTRUCTION OF A NEW PEDESTRIAN BRIDGE ACROSS I-25 @ 16TH ST BEING PROVIDE BY THE CITY AND COUNTY OF DENVER. EXISTING BURIED CABLE IS CURRENTLY IN ROAD ROW AND NEEDS TO BE ABANDON IN PLACE. EXISTING SERVICE WILL BE REROUTED THROUGH DISTRIBUTION COUNT FROM SAI X 1551 PLATTE. THIS JOB WILL INCREASE THE LOOP LENGTH BY ~960FT OF 24 GAUGE COPPER.
12	STATE	COLORADO
	WIRE CENTER	FORT LUPTON
	8-CHARACTER CLLI	FTLPCOMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-04
	DA (s)	410132
	FDI Address(es)	X 243 N MCKINLEY AV
	Replacing	REHAB JOB - 26GA AERIAL CABLES WITH 24 GA
13	STATE	IDAHO
	WIRE CENTER	BOISE
	8-CHARACTER CLLI	BOISIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Mar-05
	DA (s)	310602; 310701
	FDI Address(es)	X 2680 WARMSPRINGS AV; X 40 RL77
	Replacing	AP'S WITH X BOXES
14	STATE	IDAHO
	WIRE CENTER	BOISE
	8-CHARACTER CLLI	BOISIDNW
	COMPLETION DATE/PLANNED RETIREMENT DATE	30-Mar-05
	DA (s)	410501
	FDI Address(es)	X 8153 W STATE
	Replacing	CABLE, DUE TO MAINTENANCE ISSUES
15	STATE	IDAHO
	WIRE CENTER	BOISE
	8-CHARACTER CLLI	BOISIDSW
	COMPLETION DATE/PLANNED RETIREMENT DATE	30-Mar-05

	DA (s)	410201
	FDI Address(es)	X 6440 S FIVE MILE RD
	Replacing	CABLE, DUE TO MAINTENANCE ISSUES
16	STATE	IDAHO
	WIRE CENTER	BUHL
	8-CHARACTER CLLI	BUHLIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Mar-05
	DA (s)	210101
	FDI Address(es)	X 117 BROADWAY AV SO
	Replacing	AERIAL CABLE
17	STATE	IDAHO
	WIRE CENTER	CALDWELL
	8-CHARACTER CLLI	CLWLIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	210410; 310103
	FDI Address(es)	X 417 S 12 AV; X 1303 ARLINGTON AV
	Replacing	This work order will provide for replacement of 450 feet of wet, buried 26 gauge lead cable placed in 1939 in da#210410 of the caldwell, idaho exchange. This work order will place 800 feet of aerial 24 gauge cable from da#310103 and cut this leg of distribution cable from DA#210410 to Da#310103.
18	STATE	IDAHO
	WIRE CENTER	IDAHO FALLS
	8-CHARACTER CLLI	IDFLIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Mar-05
	DA (s)	410712
	FDI Address(es)	X 803 SATURN AV
	Replacing	AERIAL CABLE
19	STATE	IDAHO
	WIRE CENTER	KETCHUM
	8-CHARACTER CLLI	KTCHIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	221401
	FDI Address(es)	301 ST
	Replacing	DEFECTIVE CABLE
20	STATE	IDAHO
	WIRE CENTER	NAMPA
	8-CHARACTER CLLI	NMPAIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	210301
	FDI Address(es)	X 124 DAVIS AV
	Replacing	659' AERIAL LEAD CABLE
21	STATE	IDAHO
	WIRE CENTER	POCATELLO
	8-CHARACTER CLLI	PCTLIDMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Mar-05
	DA (s)	410115; 410125
	FDI Address(es)	X 636 W CUSTER; X 1005 N GARFIELD AV
	Replacing	AP'S WITH X BOXES
22	STATE	MINNESOTA
	WIRE CENTER	COON RAPIDS
	8-CHARACTER CLLI	CNROMNND

	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	430277; 430300; 430304; 430306; 430307; 430702; 430704; 440500; 440502; 440504; 440505; 440506; 440588 420103; 420105; 420202; 420203; 420205; 420207; 430103; 430104; 430105; 430200; 430202; 430203; 430204; 450301
	FDI Address(es)	1940 103 AV NW; 1715 COON RAPIDS BLVD; 1811 COON RAPIDS BLVD; 1610 NW COON RAPIDS BLVD; 10500 NW ROBINSON DR; 1000 NW EGRET BLVD; 1100 EGRET; 2390 NORTHDALE BLVD; 1970 115 AVE NW; 11301 NW ROBINSON DR; 1830 111 AV NW; 11299 NW HANSON BLVD; 11025 NW OSAGE ST; 2041 NW COON RAPIDS BLVD; 10406 HANSON BLVD; 10480 HANSON BLVD; 11200 YUKON; 2759 S HEIGHTS DR; 9900 NW ZILLA ST; 10000 NW PALM ST; 1401 COON RAPIDS BLVD; 1004 94 AV NW; CNRP BLVD EXT-REDWOOD ST
	Replacing	CABLE RE-ROUTES DUE TO COUNTY ROAD JOB
23	STATE	MINNESOTA
	WIRE CENTER	EVELETH
	8-CHARACTER CLLI	EVLTMNEV
	COMPLETION DATE/PLANNED RETIREMENT DATE	15-Jun-05
	DA (s)	231001
	FDI Address(es)	X 0406
	Replacing	THIS JOB WILL REPLACE APROX. 9000' OF CABLE AND RELOCATE IT DUE TO ROAD RECONSTRUCTION ALONG
24	STATE	MINNESOTA
	WIRE CENTER	FERGUS FALLS
	8-CHARACTER CLLI	FRFLMNFB
	COMPLETION DATE/PLANNED RETIREMENT DATE	30-Dec-04
	DA (s)	490802
	FDI Address(es)	X 460/12
	Replacing	CABLE. DUE TO MAINTENANCE & SERVICE ISSUES
25	STATE	MINNESOTA
	WIRE CENTER	VIRGINA
	8-CHARACTER CLLI	VRGNMNVI
	COMPLETION DATE/PLANNED RETIREMENT DATE	15-May-05
	DA (s)	122002
	FDI Address(es)	X 1906
	Replacing	this job is being issued to replace aprox. 2870' of BhBH-6 along pike river road, in virginia, minnesota.
26	STATE	MONTANA
	WIRE CENTER	GREAT FALLS
	8-CHARACTER CLLI	GRFLMTMA
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Jan-05
	DA (s)	212331
	FDI Address(es)	GORE HILL
	Replacing	REPLACE AERIAL CABLE WITH UNDERGROUND AT MT AIR GUARD NEW GATE. SHORT TERM DISCLOSURE REQUIRED DUE TO SERVICE ISSUES
27	STATE	NEBRASKA
	WIRE CENTER	GRAND ISLAND
	8-CHARACTER CLLI	GDISNENW
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	313403
	FDI Address(es)	X 2115 BELLWOOD

	Replacing	EXISTING FACILITY NEEDS TO BE abandoned. area was replatted. no working circuits in this facility at this time.
28	**STATE**	NEW MEXICO
	WIRE CENTER	ALBUQUERQUE NORTH
	8-CHARACTER CLLI	ALBQNMNO
	COMPLETION DATE/PLANNED RETIREMENT DATE	14-Jan-05
	DA (s)	311101
	FDI Address(es)	X 411 MATTHEW AV N W.
	Replacing	CABLE, DUE TO MAINTENANCE & SERVICE ISSUES
29	**STATE**	OREGON
	WIRE CENTER	ASTORIA
	8-CHARACTER CLLI	ASTROR64
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	410261
	FDI Address(es)	55 14TH; 75 14TH
	Replacing	300' OF 19GA LEAD CABLE WITH 24GA CABLE
30	**STATE**	OREGON
	WIRE CENTER	HAROLD
	8-CHARACTER CLLI	PTLDOR08
	COMPLETION DATE/PLANNED RETIREMENT DATE	31-Mar-05
	DA (s)	210152
	FDI Address(es)	X 13511 SE HAROLD
	Replacing	An additional 100' of 24g copper will be added to loop on se knight at se 140th and will change from aerial to underground cable.due to a road project. city or portland wants poles removed by 1-31-05.
31	**STATE**	OREGON
	WIRE CENTER	OREGON CITY
	8-CHARACTER CLLI	ORCYOR18
	COMPLETION DATE/PLANNED RETIREMENT DATE	30-Apr-05
	DA (s)	210761; 212411; 211882; 211883; 212015; 212666
	FDI Address(es)	X19131 Marjorie ln; x14865 s loder rd; x14645 s maplelane; x20254 s beavercreek rd
	Replacing	RELOCATE EXISTING AERIAL CABLE ALONG BEAVERCREEK RD BETWEEN MOLALLA AVE AND MARJORIE LN DUE TO CONFLICTS WITH STREET IMPROVEMENT PROJECT.
32	**STATE**	OREGON
	WIRE CENTER	PRINEVILLE
	8-CHARACTER CLLI	PRVLOR53
	COMPLETION DATE/PLANNED RETIREMENT DATE	13-Mar-05
	DA (s)	232501
	FDI Address(es)	X 9-16R31.121 JUNIPER CANYON RD; X 1 S BENCH RD
	Replacing	REROUTING CABLES FOR DEVELOPMENT

Additional Information: Any customer premises equipment vendor/manufacturer or enhanced services provider desiring additional technical information in conjunction with this Disclosure can contact:

Shirley Tallman
700 W. Mineral Ave
Littleton, CO 80120
Shirley.Tallman@qwest.com

Exhibit MZ-10

PSC120804.TXT

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

--oOo--

IN THE MATTER OF: THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION TO RESOLVE ISSUES RELATING TO AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	DOCKET #04-2277-02

REPORTER'S TRANSCRIPT OF PROCEEDINGS

SALT LAKE CITY, UTAH

DECEMBER 8, 2004

9:00 A.M.

VOLUME 1

BEFORE:

BEFORE ADMINISTRATIVE LAW JUDGE STEVE GOODWILL

--oOo--

1 A P P E A R A N C E S

2 FOR COVAD COMMUNICATIONS, INC.: ANDREW R. NEWELL
GORSUCH KIRGIS LLP

24 telling you it was these facilities and now it's
25 going to be this facility, that's letting you know

1 that you can determine are any of my services going
2 to be impacted by that change in technical parameters
3 and standards in the replacement. So to some extent,
4 you know, you need to let us know or you need to
5 determine by looking at your own services that you
6 are providing to the customers because we might not
7 know what those are, whether or not there's going to
8 be an impact.
9 Q Okay. That's good information. But I want
10 to make sure that my question was answered which was
11 does Qwest always provide this statement whether they
12 believe it impacts the CLEC community or not?
13 A I do not believe that we provide this level
14 of detail and this kind of statement. As I indicated
15 this is one of our early on and as this copper
16 retirement notice has evolved to some extent through
17 these proceedings, were providing and being more
18 sensitive about the information that we are
19 providing. And to some extent we can let you know
20 there's going to be a change and what that change is
21 going to be, but we have a better understanding that
22 really a CLEC needs to look and make their own
23 determination of whether there's going to be a
24 negative impact to them or not because we may not
25 always know all of the services they are providing

1 across the place. So we're trying to be more
2 specific and give you the information that lets you
3 make your own determination. But in this particular
4 early look, that's my understanding when they looked
5 at it, they did not think it would impact the CLEC
6 community.
7 Q Okay. So let's attack it another way.
8 Let's say Qwest makes its determination and
9 determines that it will impact the CLEC community.
10 Will Qwest always include a statement, sort of the
11 opposite statement of the one made here when they've
12 made that determination or was the point of what you
13 just said to say Qwest no longer tries to make that
14 determination, it just provides what it thinks is
15 enough network information for CLECs to judge that on
16 their own?
17 A Qwest wants to make sure that it provides
18 all of the information that it's required to provide
19 for the FCC rules. And in providing that information
20 and providing the information that lets a CLEC
21 determine whether or not they've got someone in that
22 location, and there are ways they can do that, they
23 need to look at the change and technical standards
24 and make their own judgement whether or not their
25 customer is impacted. And I think it's one thing for

1 us to give, you know, probable impact and a probable
2 impact is we're going from fiber, you know, to copper

EXHIBIT

C-5

admitted

COVAD – 5

COVAD – 5

Qwest Legal Department
1801 California St.
10th Floor
Denver, CO 80202

Stacy Hanson
Interrogatory Manager
303-383-6678
303-298-8197 (fax)
stacy.hanson@qwest.com

Qwest
Spirit of Service™

January 19, 2005

Via e-Mail and Overnight Mail

Karen Shoresman Frame
Senior Counsel
Covad Communications Company
7901 Lowry Boulevard
Denver, CO 80230

RE: Docket No. T-03632A-04-0425
Qwest's Responses to Covad Communications Company's First Set of Discovery Requests

Dear Ms. Frame:

Enclosed are Qwest's Responses to Covad Communications Company's First Set of Discovery Requests, Requests 1 – 22 in the above referenced matter.

If you have any questions regarding this serving, I can be reached at (303) 383-6678.

Sincerely,

Stacy Hanson
Interrogatory Manager

cc: Norm Curtright
Monica Luckritz
Tim Berg
Winslow Waxter
John Devaney

CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of **Qwest's Responses to Covad Communications Company's First Set of Discovery Requests** was mailed by overnight delivery, and electronically mailed this 19th date of January 2005, to the following:

Karen Shoresman Frame
Senior Counsel
Covad Communications Company
7901 Lowry Boulevard
Denver, CO 80230
Email: kframe@covad.com

Andrew R. Newell
Krys Boyle, P.C.
600 Seventeenth St., Suite 2700
Denver, CO 80202
anewell@krysboyle.com

Michael W. Patten
Roshka Heyman & DeWulf, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, AZ 85004

Marie Moya

Marie Moya

Arizona
T-03632A-04-0425
COVAD 01-001

INTERVENOR: Covad Communications Company

REQUEST NO: 001

Please state the number of FTTH Loops Qwest has deployed in the State of Arizona (a) as of today's date; (b) during the past 6 months; (c) during the past 12 months; (d) during the past 18 months; (e) during the past 24 months; (f) during the past 36 months; and (g) before and after the Triennial Review Order became effective.

RESPONSE:

Qwest objects to this request on the ground that it is not reasonably calculated to lead to the discovery of admissible evidence. In particular, the right of an ILEC to retire copper facilities, as confirmed in the Triennial Review Order, is not conditioned upon or related to the number of FTTH loops it has in service.

Without waiving said objection, Qwest states: Qwest has no FTTH loops in service in Arizona today, and as of the last 12 months, the last 24 months, and the last 36 months.

Respondent: Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-002

INTERVENOR: Covad Communications Company

REQUEST NO: 002

Please state the number of FTTP Loops Qwest has deployed in the State of Arizona (a) as of today; (b) during the past 6 months; (c) during the past 12 months; (d) during the past 18 months; (e) during the past 24 months; (f) during the past 36 months; and (g) before and after the Triennial Review Order became effective.

RESPONSE:

Qwest objects to this request on the ground that it is not reasonably calculated to lead to the discovery of admissible evidence. In particular, the right of an ILEC to retire copper facilities, as confirmed in the Triennial Review Order, is not conditioned upon or related to the number of FTTP loops it has in service.

Without waiving said objection, Qwest states: Qwest has no FTTP loops in service in Arizona today, and as of the last 12 months, the last 24 months, and the last 36 months.

Respondent: Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-003

INTERVENOR: Covad Communications Company

REQUEST NO: 003

Please state the number of FTTC Loops Qwest has deployed in the State of Arizona (a) as of today; (b) during the past 6 months; (c) during the past 12 months; (d) during the past 18 months; (e) during the past 24 months; (f) during the past 36 months; (g) before and after the Triennial Review Order became effective; and (h) before and after the BellSouth FTTC Reconsideration Order became effective in Dockets 01-338, 96-98, and 98-147.

RESPONSE:

Qwest objects to this request on the ground that it is not reasonably calculated to lead to the discovery of admissible evidence. In particular, the right of an ILEC to retire copper facilities, as confirmed in the Triennial Review Order, is not conditioned upon or related to the number of FTTC loops it has in service.

Without waiving said objection, Qwest states: Qwest has 4263 FTTC loops in service in Arizona today. A special study would be required to determine the installation dates of these loops and, accordingly, Qwest objects to providing that information on the ground that it would be unreasonably burdensome to do so.

Respondent: Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-004

INTERVENOR: Covad Communications Company

REQUEST NO: 004

Please state the number of FTTN (Fiber to the Node) Loops Qwest has deployed in the State of Arizona (a) as of today; (b) during the past 6 months; (c) during the past 12 months; (d) during the past 18 months; (e) during the past 24 months; (f) during the past 36 months; and (g) before and after the Triennial Review Order became effective.

RESPONSE:

Please see response to Covad 01-003.

Respondent: Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-005

INTERVENOR: Covad Communications Company

REQUEST NO: 005

Please state the number of Hybrid Copper-Fiber Loops that Qwest has deployed in the State of Arizona (a) as of today; (b) during the past 6 months; (c) during the past 12 months; (d) during the past 18 months; (e) during the past 24 months; (f) during the past 36 months; and (g) before and after the Triennial Review Order became effective.

RESPONSE:

Qwest objects to this request on the ground that it is not reasonably calculated to lead to the discovery of admissible evidence. In particular, the right of an ILEC to retire copper facilities, as confirmed in the *Triennial Review Order*, is not conditioned upon or related to the number of loops incorporating fiber optic technology that it has in service. Notwithstanding these objections, Qwest states that it has deployed approximately 268,000 "hybrid loops" in Arizona. Information relating to the dates on which Qwest installed these loops is not readily available and could only be gathered, if at all, through a highly labor-intensive special study. Accordingly, Qwest objects to Covad's request for information relating to the timing of Qwest's installation of hybrid loops on the ground that it would be unduly burdensome to attempt to gather that information.

Respondent: Roy Rietz
Qwest Legal Department

Arizona
T-03632A-04-0425
COVAD 01-006

INTERVENOR: Covad Communications Company

REQUEST NO: 006

Please admit that Qwest has no specific marketing, network, and/or operational plans to provide advanced services utilizing FTTH, FTTC, or hybrid copper fiber loops in the state of Arizona. If the response is other than an unqualified admission, please provide any and all documents that support Qwest's response.

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Specifically, the right of an ILEC to retire copper loops it has replaced with fiber, as confirmed in the *Triennial Review Order*, is not conditioned upon the ILEC's marketing, network, or operational plans. Qwest objects further on the ground that the request seeks confidential, competitively-sensitive business information.

Arizona
T-03632A-04-0425
COVAD 01-007

INTERVENOR: Covad Communications Company

REQUEST NO: 007

Please provide the number of loops deployed in Arizona that utilize Qwest-provisioned:

(a) Packet-switching technology; and/or

(b) Asynchronous Transfer Mode (ATM) technology.

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Specifically, the right of an ILEC to retire copper loops it has replaced with fiber, as confirmed in the *Triennial Review Order*, is not conditioned upon whether the ILEC has deployed packet switching or ATM technology. Qwest objects further to this request to the extent it implies that Covad may be entitled to access to packet switching or ATM technology, as the FCC has established that ILECs are not required to provide such access. In addition, Qwest objects to this request to the extent it calls for a special study or the gathering of data that do not already exist. It would be unduly burdensome for Qwest to gather such information.

Arizona
T-03632A-04-0425
COVAD 01-008

INTERVENOR: Covad Communications Company

REQUEST NO: 008

For each group of FTTH, FTTP, FTTC, and FTTN Loops Qwest has deployed, (a) what percentage or number of FTTH loops serve mass market customers; (b) what percentage or number of FTTP loops serve mass market customers; (c) what percentage or number of FTTC loops serve mass market customers; (d) what percentage or number of FTTN loops serve mass market customers?

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. In addition, please see the responses to Covad 01-001 through 004. Qwest also objects to this request to the extent it calls for a special study or the gathering of data that do not already exist on the ground that gathering such information would be unreasonably burdensome. Notwithstanding these objections, Qwest states that it has not deployed (a) FTTH or (b) FTTP loops in Arizona. (c) 100% of FTTC loops deployed in Arizona serve mass market customers. (d) Since FTTC loops are considered a subset of FTTN loops and Qwest has not deployed other FTTN type loops, 100% of FTTN loops deployed in Arizona serve mass market customers.

Respondent: Qwest Legal Department
Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-009

INTERVENOR: Covad Communications Company

REQUEST NO: 009

With respect to Qwest's deployment of Fiber Loop facilities in Arizona, please state the number of customers:

(a) Served by those Fiber Loops, and
(b) Of those customers that are served by Fiber Loops, how many are also served by copper facilities?

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Qwest also objects to this request on the ground that it calls for a special study, or the gathering of data that do not already exist, and thus is unduly burdensome.

Arizona
T-03632A-04-0425
COVAD 01-010

INTERVENOR: Covad Communications Company

REQUEST NO: 010

When Qwest deploys fiber feeder, and it is technically feasible to leave copper feeder in service, does Qwest nevertheless, in some circumstances, re-route or re-use the copper feeder, making the facility unavailable to some or all customers formerly served by those facilities?

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Specifically, the ruling in the *Triennial Review Order* confirming the right of ILECs to retire copper loops does not require ILECs to continue providing access to copper facilities. Further, Qwest objects to this request on the ground that a complete response would require Qwest to conduct special studies and to develop information and data that do not currently exist. In this regard, the request is unduly burdensome. Notwithstanding these objections, please see response to Covad 01-022.

Respondent: Legal
Michael Norman / Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-011

INTERVENOR: Covad Communications Company

REQUEST NO: 011

For each Qwest wire center in Arizona, please provide the number of fiber feeder facilities deployed.

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Qwest also objects to this request to the extent it calls for a special study or the gathering of data that do not already exist. To the extent the request seeks such information, it is unduly burdensome.

Arizona
T-03632A-04-0425
COVAD 01-012

INTERVENOR: Covad Communications Company

REQUEST NO: 012

Has Qwest ever deployed Fiber Loops in a manner that extends the length of pre-existing Fiber Loops? If Qwest's previous response is "yes," please disclose the wire center where such deployment(s) occurred.

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Qwest also objects to this request to the extent it calls for a special study or the gathering of data that do not already exist. To the extent the request seeks such information, it is unduly burdensome.

Arizona
T-03632A-04-0425
COVAD 01-013

INTERVENOR: Covad Communications Company

REQUEST NO: 013

For the past five years in Arizona, please disclose the number of times Qwest has been required to relocate facilities as a result of government (federal, state, or any local) action.

RESPONSE:

Qwest objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible evidence. Qwest also objects to this request to the extent it calls for a special study or the gathering of data that do not already exist.

Arizona
T-03632A-04-0425
COVAD 01-014

INTERVENOR: Covad Communications Company

REQUEST NO: 014

With respect to the disclosures in response to the above Data Request 1.13, please state the number of times Qwest retired copper loop facilities and replaced them with Fiber Loops.

RESPONSE:

Qwest objects to this request on the ground that the reference to "disclosures" is vague and ambiguous. In addition, please see response to Covad 01-013.

Arizona
T-03632A-04-0425
COVAD 01-015

INTERVENOR: Covad Communications Company

REQUEST NO: 015

Please state whether Qwest routinely deploys remote DSLAMs when deploying fiber loop facilities in a manner that results in a Fiber Loop other than a FTTH Loop.

RESPONSE:

Qwest objects to this request on the ground that it is not reasonably calculated to lead to the discovery of admissible evidence. Specifically, the right of ILECs to retire copper loops, confirmed by the FCC in the *Triennial Review Order*, is not dependent upon whether an ILEC deploys a remote DSLAM upon installing fiber facilities. Qwest also objects to this request on the ground that it is not limited to Arizona and, accordingly, is overly broad. Qwest further objects on the ground that the term "routinely" is vague and ambiguous.

Notwithstanding these objections, Qwest responds that it does deploy remote DSLAMs in its network. However, Qwest does not deploy a remote DSLAM each time it deploys fiber facilities that results in something other than a FTTH loop.

Respondent: Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-016

INTERVENOR: Covad Communications Company

REQUEST NO: 016

For any and all (a) copper loops and (b) copper subloops (c) copper feeders retired in the State of Arizona, how many separate notices were given:

1. To the FCC?
2. To the Arizona Public Service Commission?

3. On the Qwest website?
4. To the CLECs directly?
5. To the End Users?

Please provide a copy of any and all notices, or describe their precise location on Qwest's website.

RESPONSE:

Qwest objects to this request on the ground that the absence of any time constraints in the request makes it is overly broad. Notwithstanding this objection, Qwest states that it has provided the following notices in connection with the retirement of copper facilities in Arizona:

1. To the FCC: 31
2. To the Arizona Public Service Commission: 0
3. On the Qwest website: 31
4. To the CLECs directly:31
5. To the End Users: 0

The notices can be found at:
http://www.qwest.com/disclosures/numericinde
x.html

Respondent: Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-017

INTERVENOR: Covad Communications Company

REQUEST NO: 017

Please reference the Direct Testimony of William Easton dated December 20, 2004, page 14, line 25. Enumerate and state for any and all unbundled network elements (UNEs) ordered by Covad and provisioned by Qwest whether (a) Qwest bills the NRC (non-recurring cost) charges in advance; and (b) Qwest bills the MRC (monthly recurring cost) charges in advance. To the extent that Qwest's Response to this Data Request differs from the response provided by Mr. Easton in the Minnesota arbitration (OAH Docket No. 3-2500-15908-4; MPUC Docket No. P-5692, 421/IC-04-549, Transcript of Hearings, Vol. II, pp. 36-37, Sept. 21, 2004), or in the Utah arbitration, please state the specific differences and why the response is different.

RESPONSE:

Qwest objects to this request on the ground that the phrase "in advance" is vague and ambiguous. Notwithstanding this objection, Qwest states as follows:

a) For all unbundled network elements, Qwest bills non-recurring charges after service has been provided. In addition, charges related to usage (e.g. toll) are billed after service has been provided.

b) For all unbundled network elements, Qwest bills monthly recurring charges one month in advance.

Respondent: William Easton

Arizona
T-03632A-04-0425
COVAD 01-018

INTERVENOR: Covad Communications Company

REQUEST NO: 018

Please reference the Direct Testimony of William Easton dated December 20, 2004, page 14, line 25. Enumerate and state for any and all collocation services ordered by Covad and provisioned by Qwest whether (a) Qwest bills the NRC charges in advance; and (b) Qwest bills the MRC charges in advance. To the extent that Qwest's Response to this Data Request differs from the response provided by Mr. Easton in the Minnesota arbitration (OAH Docket No. 3-2500-15908-4; MPUC Docket No. P-5692, 4211IC-04-549, Transcript of Hearings, Vol. II, pp. 36-37, Sept. 21, 2004, or in the Utah arbitration, please state the specific differences and why the response is different.

RESPONSE:

Qwest objects to this request on the ground that the phrase "in advance" is vague and ambiguous. Notwithstanding this objection, Qwest states as follows:

a) For new construction non-recurring collocation charges, Qwest requires 50% payment prior to the start of construction and the remainder upon completion. On augments or additions to an existing collocation, bills are sent at the time the work is being performed.

b) Qwest bills monthly recurring charges for collocation one month in advance.

Respondent: William Easton

Arizona
T-03632A-04-0425
COVAD 01-019

INTERVENOR: Covad Communications Company

REQUEST NO: 019

When Qwest retires a copper loop, copper feeder or a copper subloop, describe in detail:

(a) the process Qwest undertakes to determine if any of its own customers are impacted by such copper retirement; and

(b) each individual step Qwest takes to determine if any of its own customers are impacted by such copper retirement.

In connection therewith, specifically describe how Qwest determines the (c) identity; (d) address; (e) circuit identification number or unique identification number; and (f) cable and pair information for any of its customers impacted by such copper retirement.

RESPONSE:

Qwest objects to this request on the ground that it is not reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding this objection, Qwest states that as a general practice, it attempts to leave copper facilities in place and, when technically feasible, does not retire them. Accordingly, the data request excludes the most common scenario that occurs when Qwest deploys a fiber facility, which is that it does not retire the copper facility. If Qwest does retire a copper facility upon deploying fiber, it initially identifies the services -- not the customers -- that are being carried on the copper facility by viewing telephone numbers and circuit identification numbers. If local exchange services are carried on the facility, Qwest cuts those services over to the new fiber facility without using any additional identifying information. If there are other services on the facility (e.g., high-capacity private line service), a Qwest design engineer determines the best method for continuing those services. As part of this process, the design engineer extracts the information needed to redesign the circuit (e.g., the address) from a Qwest database.

Respondent: Qwest Legal Department

Arizona
T-03632A-04-0425
COVAD 01-020

INTERVENOR: Covad Communications Company

REQUEST NO: 020

Admit that Qwest has not deployed a single loop in Arizona over which it currently is providing voice, data and video.

RESPONSE:

Denied.

Respondent: Roy Rietz

Arizona
T-03632A-04-0425
COVAD 01-021

INTERVENOR: Covad Communications Company

REQUEST NO: 021

If your answer to Data Request 1.20 is anything other than an unqualified admission, please state the number of loops that Qwest has deployed in Arizona over which it currently is providing voice, data and video.

RESPONSE:

Qwest objects to this request on the ground that it is not reasonably calculated to lead to the discovery of admissible evidence. Qwest objects further to this request on the ground that it is unreasonably burdensome. Notwithstanding these objections, Qwest states that some of the FTTC loops listed in response to Covad 01-003 are currently used to provide voice, data, and video. Qwest does not have information that is reasonably available concerning the precise number of FTTC loops in Arizona that are used for these multiple services.

Respondent: Roy Rietz
Legal

Arizona
T-03632A-04-0425
COVAD 01-022

INTERVENOR: Covad Communications Company

REQUEST NO: 022

When Qwest retires copper loops or copper subloops for any reason, please state whether Qwest's current policy is to leave copper loops or copper subloops in service where it is technically feasible to do so where the resultant loops are (a) FTTC loops; (b) FTTP loops; (c) FTTN loops; or (d) hybrid loops.

RESPONSE:

When Qwest installs any fiber loop, its standard practice is to evaluate whether it would be technically feasible to leave copper facilities in place instead of retiring them. This practice is not a legal requirement but, instead, is one that Qwest follows to accommodate its wholesale customers and to minimize or avoid disruptions in service. The *Triennial Review Order* confirms the right of ILECs to retire copper loops that they have replaced with fiber facilities without requiring ILECs to assess whether it is technically feasible to leave those loops in place. While Qwest expects to continue its practice of assessing the technical feasibility of leaving copper loops in place, it does not have any obligation to transform this practice into a legal requirement by including it in the interconnection agreement for all fiber loop installations. Accordingly, Qwest will not commit contractually to evaluating technical feasibility for the types of loops listed in this request.

Respondent: Michael Norman / Roy Rietz

EXHIBIT

C-6

admitted

COVAD – 6

COVAD – 6

COPY

Qwest Legal Department
1801 California St.
10th Floor
Denver, CO 80202

Stacy Hanson
Interrogat ry Manager
303-383-6678
303-298-8197 (fax)
stacy.hanson@qwest.com

Qwest
Spirit of Service

January 31, 2005

Via e-Mail and Overnight Mail

Michael W. Patten
Roshka Heyman & DeWulf, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, AZ 85004

RE: Docket No. T-03632A-04-0425
Qwest's Responses to Covad Communications Company's Second Set of Discovery Requests

Dear Mr. Patten:

Enclosed are Qwest's Responses to Covad Communications Company's Second Set of Discovery Requests, Requests 1 – 10 in the above referenced matter.

If you have any questions regarding this serving, I can be reached at (303) 383-6678.

Sincerely,

Stacy Hanson

Stacy Hanson
Interrogatory Manager

cc: Norm Curtright
Monica Luckritz
Tim Berg
Winslow Waxter
John Devaney

CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of **Qwest's Responses to Covad Communications Company's Second Set of Discovery Requests** was mailed by overnight delivery, and electronically mailed this 31st day of January 2005, to the following:

Andrew R. Newell
Krys Boyle, P.C.
600 Seventeenth St., Suite 2700
Denver, CO 80202
Email: anewell@krysboyle.com

Michael W. Patten
Roshka Heyman & DeWulf, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, AZ 85004
Email: mpatten@rhd-law.com

Marie Moya

Marie Moya

Arizona
T-03632A-04-0425
COVAD 02-001

INTERVENOR: Covad Communications Company

REQUEST NO: 001

Please identify whether the Qwest LFACS database contains an ECCKT field.

RESPONSE:

No. There is no ECCKT field in LFACS.

Respondent: Renee Albersheim

Arizona
T-03632A-04-0425
COVAD 02-002

INTERVENOR: Covad Communications Company

REQUEST NO: 002

Please identify what Qwest provides in the ECCKT field on a FOC for shared loops.

RESPONSE:

Qwest objects to this data request as it is vague and ambiguous. Without waiving said objection, to the extent Covad seeks information regarding the data Qwest provides in the ECCKT field on an FOC for shared loops, Qwest responds as follows.

There are two order information sections on an FOC ("Firm Order Confirmation") for shared loops. The first order information section applies to the end-users account. The second order information section, applies to the CLEC account. Qwest provides a pseudo-circuit ID in the order information section of the FOC which is applied to the end-user's account, and is generated to change the end-user's account to reflect that line sharing is being added to that account. The ECCKT field is not populated for the order section of the FOC that is generated to reflect the CLEC's order for shared loop. The order section of the FOC for the CLEC's order for shared loop is used to establish billing for shared loop. There is no circuit id for shared loops.

Respondent: Renee Albersheim

Arizona
T-03632A-04-0425
COVAD 02-003

INTERVENOR: Covad Communications Company

REQUEST NO: 003

Please admit that the following statement is representative of how Qwest generates circuit identification numbers, and provide the format Qwest utilizes for shared loop ECCKT information on the FOC:

Characters 1 and 2 are the state code;

Characters 3 through 6 are the Service Code indicating what product is being ordered;

Characters 7 through 12 are numeric;

Characters 13 and 14 represent the following: PN equates to Western, MS equates to Central, and NW equates to Eastern.

RESPONSE:

As stated in an attachment to Qwest's PCAT for Unbundled Loop, the above information is correct for designed service circuit identification numbers such as those created for unbundled loops (See Attachment A). This format is not correct for shared loops, because shared loops are non-designed services and do not have circuit identification numbers. Consequently, Qwest's PCAT for Shared Loops does not contain this attachment.

The ECCKT information on the FOC is generated for the portion of the order that reflects that line sharing has been added to the end-user's account. The ECCKT field is not generated for the CLEC order for the shared loop itself. The format of the ECCKT in the section of the FOC reflecting that line sharing is being added to the end-user's account is a combination of: a state code; the letters "UAFU", which is NOT a Service Code; and the end user's telephone number. This information is used by Qwest to indicate that line sharing has been added to the end-user's account. It is not used for billing, and it is not a circuit id.

Respondent: Renee Albersheim

Qwest

Circuit ID (ECCKT)

Unbundled Local Loop service requests are identified by using Common Language Circuit Identification (CLCI™). The CLCI is in Serial Number format and is provided to you on your FOC. Once the Circuit Identification is assigned, all subsequent requests must carry the Circuit Identification in the ECCKT field of the LSR.

The existing Private Line CLCI will be changed to an Unbundled Local Loop CLCI and is provided to you on your FOC. Once the CLCI is assigned, all subsequent design changes will require the Unbundled Local Loop CLCI, and should be compliant with the design requirements identified in Technical Publication, Interconnection – Unbundled Loop, 77384. (Link blue text to: http://www.qwest.com/techpub/77384/77384.pdf) Private Line to Unbundled Loop Pricing Conversion CLEC Job Aid is a document designed to provide guidance in performing service request entries for the Private Line to Unbundled Loop Price Conversion. (Link blue text to: http://www.qwest.com/wholesale/training/desc_pl_ubl.html)

Following is a description of the Qwest Circuit Identification Number format:

- Characters 1 and 2 are the state code (Refer to Circuit ID by State Table below.)
- Characters 3 through 6 are the Service Code indicating what product is being ordered. (Refer to the Service Code Table below.)
- Characters 7 through 12 are numeric
- Characters 13 and 14 represent; PN equates to Western, MS equates to Central, and NW equates to Eastern

29.LXFU.123456..MS is an example of a Circuit Identification Number in Serial Format.

Circuit ID by State Table

Central MS		Eastern NW		Western PN	
State	State Code	State	State Code	State	State Code
Arizona	19	Iowa	1	Oregon	5
Colorado	29	Minnesota	3	Washington	4
Idaho	39	Nebraska	7		
Montana	49	North Dakota	5		
New Mexico	59	South Dakota	9		
Utah	69				
Wyoming	79				

SERVICE CODE TABLE

Product	Service Code
Analog type loops, Voice Grade, Non-Loaded ADSL Compatible Loops	LXFU
DS1 Capable Loop	HCFU
DS3 Capable Loop	HFFU
ISDN BRI Capable Loop	UBXU
OC3 Capable Loop	OBFU

Circuit ID (ECCKT)
Wholesale/ Interconnection Unbundled Local Loop -General Information

Qwest

OC12 Capable Loop	ODFU
OC48 Capable Loop	OFFU
OC192 Capable Loop	OGFU
xDSL-I Capable Loop	AGFU

*UBXU service code replaces UBCU, UBCU is a grandfathered code for ISDN BRI Capable Loop.

Arizona
T-03632A-04-0425
COVAD 02-004

INTERVENOR: Covad Communications Company

REQUEST NO: 004

Please admit that Qwest's billing output files provide the means to populate an ECCKT field.

RESPONSE:

No. Qwest's billing output files do not provide the means to populate an ECCKT field. The ECCKT field does not exist in Qwest's back office systems.

Qwest's billing systems do not create values for circuit IDs. Circuit IDs are generated by Qwest's back office systems for designed services. Shared loops are not designed services, so they are not assigned circuit IDs. Qwest's billing output files will contain a value for a circuit ID if the product being billed has a circuit ID, such as a designed service like an unbundled loop, and this value has been passed to the billing systems when the product is ordered.

The circuit ID is not populated on bills for shared loops.

Respondent: Renee Albersheim

Arizona
T-03632A-04-0425
COVAD 02-005

INTERVENOR: Covad Communications Company

REQUEST NO: 005

Please reference Renee Albersheim's Rebuttal Testimony filed in this proceeding, dated January 7, 2005, page 7 lines 3 - 6. State when and where Qwest disclosed to the "Joint Team" that the non-design systems flow would "dictate" that the circuit ID field specifically could not be available for use in pre-ordering, ordering, provisioning, billing or maintenance and repair of line sharing. Please provide any existing documentation of such statement.

RESPONSE:

See the meeting minutes filed as exhibit RA-Reb-03 in this proceeding. Listed as an issue under Billing, on page 9, dated 10/22/99, the minutes state, "CRIS will establish a separate CLEC summary bill for Line Sharing lines. The format will look the same as current bills for UBL. The CLEC will be provided a Miscellaneous account # for each line on the FOC. CLEC must keep track of Misc# to compare on bill." The "Misc#" is the sub-account number that Covad currently receives on FOCs and the Line Sharing bills. These minutes indicate that the CLECs were informed as early as October, 1999, that a unique identifier for billing would be used.

Also, in the set of documents filed by the Joint Team with the Minnesota Commission, there are several references to "circuit identifier" as well as "CFA Like Connections" (See Exhibit RA-Reb-01, pages 41, 55, 57, and 70). CFA stands for Connecting Facility Assignment. The significance to this proceeding is that circuit IDs and CFAs are generally discussed in connection with unbundled loops, but Covad is asking that circuit IDs be established for shared loops. The Joint Team used the term "CFA Like Connections" because it was understood they were not connecting CFAs to unbundled loops, but rather they were dealing with identifying connection points for the data service which is split away from the voice service in the central office, and the data service was not identified by circuit IDs. Each of these references indicate that the issues regarding identification of service were thoroughly discussed throughout the Joint Team's design of line sharing pre-ordering, ordering, provisioning, billing and maintenance and repair.

The minutes indicate that Clay Deanhardt, of Covad, was assigned the task of writing the first draft of the final report on OSS submitted by the Joint Team to the Minnesota Commission (See Exhibit RA-Reb-01, page 46). This final report states that issues addressed by the Joint Team included:

(1) What pre-order information do the CLECs require for shared lines? Are functions meeting those requirements currently available? If not, what will be required to make such functions available?

(2) What information will U S WEST require for shared lines? Are functions meeting those requirements currently available? If not, what will be required to make such functions available?

(3) What process will U S WEST follow to provision a shared line? Will shared lines be provisioned through the design circuit process or through the POTS process.

(4) How will U S WEST and the CLECs coordinate repair and maintenance of a shared line?

(5) How will all of the shared line billing functions be handled by U S WEST?

(6) What U S WEST systems will be affected by line sharing? Are those systems capable of handling orders for shared lines? If not, what will it take to make those systems capable of doing so?

(See Exhibit RA-Reb-01 page 15)

It is clear from these documents that the Joint Team thoroughly discussed all aspects of implementing the pre-ordering, ordering, provisioning, billing, and maintenance and repair of line sharing. Qwest relied on the CLECs stated requirements, and developed its systems for line sharing based on CLEC input. If Covad had an issue with the circuit ID field, it would have been appropriate to raise the issue while CLEC requirements were being established. It is reasonable to assume that if a lack of circuit ID was not acceptable to Covad, that the issue would have been raised during development, 5 years ago.

Respondent: Renee Albersheim

Arizona
T-03632A-04-0425
COVAD 02-006

INTERVENOR: Covad Communications Company

REQUEST NO: 006

Please identify the Industry Standard forms Qwest requires CLECs to complete in order to place an order for a shared loop.

RESPONSE:

LSR Form
End User Form
Loop Service Form

These forms are used to order many products, both designed and non-designed. Not all fields on these forms will be used for all products. The Loop Service Form Preparation Guide of the LSOG ("Local Service Ordering Guide"), clearly states that the ECCKT is a conditional field and is only required for loop splitting. The ECCKT field is not used for ordering shared loops. (See Attachment A, pages 24 and 138).

Respondent: Renee Albersheim

Loop Service (LS)
LSOG 6 Form Preparation Guide
V 25.0

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Qwest Local Service Request (LS) Form – Numbered

HISTORY LOG

The History Log for this document may be accessed from the Table of Contents at the following web site: http://www.qwest.com/wholesale/clecs/lsog.html. The link to the downloadable History Log has been indented under Loop Service (LS).

1. GENERAL SECTION

1.1 The LS Form must always be associated with the Local Service Request (LSR) Form and the End User (EU) Form that is necessary for the provisioning of this request.

1.2 The LSOG Local Service Ordering Overview contains complete criteria for placing orders in the "Ordering Criteria Matrix" and a "Product Groups Table" identifying the products that may be requested. This document is accessed from the following Web site: http://qwest.com/wholesale/clecs/lsog.html

1.3 Usage Strips or Usage Matrices are used for each field that is needed to complete the LS form. The following Usage Matrix displays all of the products that are specific to this form. The LSR Activity Types (ACT) that are allowed by product display an asterisk (*). When an Activity Type is blank, a field entry is prohibited.

The following table is used to clarify the application of the USAGE Strip for specific products.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	*	*	*	*			
Line Sharing/Shared Loop					*		
Unbundled Distribution Loop (UDL)	*	*	*		*	*	*
Unbundled Feeder Loop (UFL)	*	*			*		*
Unbundled Local Loop	*	*	*		*	*	*
Unbundled Loop Split	*		*			*	

2. LS FORM DESCRIPTION

2.1 All information required for ordering Loop Service is provided for in the various fields contained within the LS Form.

3. LS FORM ENTRIES

3.1 Included at the end of this document is an example of the LS Form with numbered fields to correspond with the Field Numbers within this document. Fields/entries that are "Not currently used by Qwest" are shaded gray to indicate they are not to be used. This numbered form is intended as a guide when using this document.

Qwest-Specific Forms should be used when processing orders with Qwest, as these forms contain:

- OBF fields which are used by Qwest
- OBF fields which are "Not currently used by Qwest" and shaded gray to indicate they are not to be used
- Qwest-Specific fields necessary to process your request

Paragraph 3.5, Alphanumeric Glossary, contains an alphabetic listing of the LS Form fields with a cross-reference to the field numbers.

3.1.1 The LS is prepared by the CLEC/Reseller and is submitted to the Qwest SC (Service Center) for the ordering of local service. The term "SC" referenced throughout the LS practice is used so.as to represent the organization that processes a customer's request for local service.

3.2 Downloadable Qwest LS Form

A downloadable blank LS Form is available on the Qwest Wholesale Web page at:
http://www.qwest.com/wholesale/forms/ls.html

The blank form can be populated in Microsoft Excel with a minimum system requirement of Office 97. The blank form must be downloaded and saved before populating. Additionally, the blank form may be printed and submitted with handwritten field entries.

Each field on the LS Form is displayed in the same sequence identified in the accompanying LSOG 6 Form Preparation Guide. The Field Name is identified above the field and below it are "hash" marks that indicate the number of Data Characteristics allowed in the individual field.

To begin populating, place your cursor in the field and begin typing your entry. If more than the allowed numbers of characters are entered in a field, an error message will pop-up advising you that "The value you entered is not valid." Click "Retry", check LSOG for the allowable character length, and re-enter. You can move to another field by using the "Tab" or physically moving your cursor to your next entry (fields that are shaded gray are not accessible).

When the forms for your entire order are completed, fax them to Qwest for processing.

3.2 ADMINISTRATIVE SECTION

1. PON - Purchase Order Number

Identifies the CLEC's unique purchase-order or requisition number that authorizes the issuance of this request or supplement.

USAGE:

IMA EDI/GUI: This field is not required.

The PON entry from the LSR form is used.

N	D	V	Z	C	T	M
N	N	N	N	N	N	N

Manual/Fax: This field is required.

The data in this field must match the PON provided on the LSR form.

N	D	V	Z	C	T	M
R	R	R	R	R	R	R

DATA CHARACTERISTICS: 16 alphanumeric characters

EXAMPLE:

8	2	4	Z	9											

2. VER - Version Identification

Identifies the CLEC's version number.

NOTE 1: Any reissuance can use this entry to uniquely identify the form from any other version.

VALID ENTRIES:

AA - ZZ
00 - 99
Blank

USAGE:

IMA EDI/GUI: This field is not required.

The VER entry from the LSR form is used.

N	D	V	Z	C	T	M
N	N	N	N	N	N	N

Manual/Fax: This field is required.

The data in this field must match the VER provided on the LSR form.

N	D	V	Z	C	T	M
R	R	R	R	R	R	R

DATA CHARACTERISTICS: 2 alphanumeric characters

EXAMPLE: | A | A |

3. AN - Account Number

Identifies the main end-user account number assigned by Qwest.

VALID ENTRIES:

Account Number
N = New Account Number

USAGE:

IMA EDI/GUI: This field is not required.

The AN entry from the LSR form is used.

N	D	V	Z	C	T	M
N	N	N	N	N	N	N

Manual/Fax: This field is required.

The data in this field must match the AN field on the LSR form.

N	D	V	Z	C	T	M
R	R	R	R	R	R	R

DATA CHARACTERISTICS: 16 alphanumeric characters

EXAMPLES:

3	0	3	-	5	5	5	-	1	2	1	2				

4. ATN - Account Telephone Number – Not currently used by Qwest

Identifies the account telephone number assigned by the NSP.

5. LQTY - Loop Quantity

Identifies the quantity of loops involved in this service request.

USAGE: This field is required.

RULE #	Products	Business Rule
1	• Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • DID/PBX Trunk Port Facility • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	This entry must equal the number of LNUMs.
2	• Unbundled Distribution Loop (UDL) • DID/PBX Trunk Port Facility • Unbundled Local Loop • Unbundled Loop Split	If doing a Conversion As Specified, this entry will include all lines being converted and new lines if requested.

N	D	V	Z	C	T	M
R	R	R	R	R	R	R

DATA CHARACTERISTICS: 4 numeric characters

EXAMPLE:

0	0	0	8

6. PG_of_ - Page _ of _

Identifies the page number and total number of pages contained in this request.

USAGE:

IMA EDI/GUI: This field is not required.

The PG_of_ entry from the LSR form is used.

N	D	V	Z	C	T	M
N	N	N	N	N	N	N

Manual/Fax: This field is required.

The data in this field must coordinate with the PG_of_ field on the LSR form.

N	D	V	Z	C	T	M
R	R	R	R	R	R	R

DATA CHARACTERISTICS: 4 numeric characters

EXAMPLE: PG | | 1 | of | | 2 |

3.3 SERVICE DETAILS SECTION

This is a repeating section. LINE SHARED TN through CABCONNQTY repeat as a group LQTY times.

6a. LINE SHARED TN – Line Shared Telephone Number – Qwest-Specific Field

Identifies the telephone number of the loop to be shared.

USAGE: This field is conditional.

N	D	V	Z	C	T	M
N	N	N	N	C	N	N

RULE #	Products	Business Rule
1	• Line Sharing/Shared Loop	• Required when TOS 2nd character = R or S, NOT required when TOS 2nd character = N (Loop Splitting) • When TOS 2nd character = R or S and LNSA = N or T placeholder TN is not valid
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	• This field repeats the same number of times as the value in the LQTY field.

DATA CHARACTERISTICS: 12 alphanumeric characters

RULE #	Products	Business Rule
1	• All Products	• Dashes are required in positions 4 & 8.

EXAMPLE:

3	0	3	-	5	5	5	-	0	0	0	0

7. LOCNUM - Location Number

Identifies the service location number for the service requested

NOTE 1: The Location Number is assigned by the Customer and is retained until the service is disconnected.

VALID ENTRIES:

RULE #	Products	Valid Entries
1	• All Products	• The first occurrence of LOCNUM should equal 001 and all subsequent occurrences are numbered sequentially. (eg. 002, 003, etc.)

USAGE: This field is conditional.

RULE #	Products	Business Rule
1	• All Products	• This field repeats the same number of times as the value in the LQTY field.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	R	R		R	R		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	N		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	N		N	N	N
Unbundled Loop Split	N		N			N	

DATA CHARACTERISTICS: 3 numeric characters

EXAMPLES: | 0 | 0 | 1 |

8. LNUM - Line Number

Identifies the line as a unique number and each additional occurrence as a unique number.

NOTE 1: The LNUM is customer assigned and is returned on the Firm Order Confirmation to the ordering customer.

NOTE 2: Once LNUM is generated it cannot be changed and is retained through completion of the request.

VALID ENTRIES:

RULE #	Products	Valid Entries
1	• Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • DID/PBX Trunk Port Facility • Unbundled Local Loop • Unbundled Loop Split	This entry should be sequentially numbered. LNUM must be unique within a single request/PON and sequential starting with 0001.
2	• DID/PBX Trunk Port Facility	Once LNUM is generated it cannot be changed and is retained through completion of the request.

USAGE: This field is required.

RULE #	Products	Business Rule
1	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	This field repeats the same number of times as the value in the LQTY field.

N	D	V	Z	C	T	M
R	R	R	R	R	R	R

DATA CHARACTERISTICS: 4 numeric characters

EXAMPLE: | 0 | 0 | 0 | 1 |

9. LNA - Line Activity

Identifies the activity involved at the line level.

VALID ENTRIES:

RULE #	Products	Valid Entries
1	• DID/PBX Trunk Port Facility • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	N = New Installation C = Change an account D = Disconnect M = Move physical termination within building T = Outside Move R = Record activity is for ordering administrative changes – Not currently used by Qwest V = Conversion to New LSP.
2	• Line Sharing/Shared Loop	N = New Line Sharing D = Disconnect Line Sharing M = Move termination within CO V = Conversion from DLEC to DLEC T = Outside Move
3	• Unbundled Loop Split	N = New Loop Sharing T = Outside Move D = Disconnect V = Conversion to New CLEC

USAGE: This field is conditional.

RULE #	Products	Business Rule
1	• Unbundled Local Loop	If ACT = N, LNA must = N. If ACT = V, LNA must = N, D, or V. If ACT = C, LNA must = C. If ACT = T, LNA must = T. If ACT = M, LNA must = M. If ACT = V, LNA must = V or D if CHC=B.
2	• DID/PBX Trunk Port Facility	If ACT = N, LNA = N. If ACT = Z, LNA = V, N, or D. If ACT = C, LNA = N, C, or D
3	• Unbundled Feeder Loop (UFL)	If ACT = N, LNA must = N. If ACT = C, LNA = D or C. If ACT = M, LNA=M.
4	• Unbundled Distribution Loop (UDL)	If ACT = N, LNA must = N. If ACT = V, LNA = N, D, or V. If ACT = C, LNA = N, C, or D. If ACT = T, LNA = T. If ACT = M, LNA = M.
5	• Unbundled Loop Split	If ACT = N, LNA must = N. If ACT = T, LNA must = N or T. If ACT = V, LNA must = N, D, or V. If ACT = V, LNA must = V or D if CHC=B
6	• Shared Loop	If ACT = C and TOS 2nd character = N, LNA must = V, M or D if CHC=B

9. LNA - Line Activity (continued)

RULE #	Products	Business Rule
7	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the LQTY field.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	R	C		R	R		
Line Sharing/Shared Loop					R		
Unbundled Distribution Loop (UDL)	R	R	R		R	R	R
Unbundled Feeder Loop (UFL)	R	R			R		R
Unbundled Local Loop	R	R	R		R	R	R
Unbundled Loop Split	R		R			R	

DATA CHARACTERISTICS: 1 alpha character

EXAMPLE: N

10. SLTN – Shared Line telephone Number – Not currently used by Qwest

Identifies the end user telephone number(s) for line sharing or line splitting.

11. LMT – Loop Modification Type – Not currently used by Qwest

Identifies the loop changes involved in this service request.

12. BTRL – Bridged Tap Removal Location – Not currently used by Qwest

Identifies the location of the bridged tap to be removed from the loop.

13. CKR - Customer Circuit Reference

Identifies the circuit number assigned by the customer.

NOTE 1: CKR is used by the customer as a cross-reference to the CLEC circuit ID and in many cases to identify the customer's end-to-end service.

USAGE: This field is conditional.

RULE #	Products	Business Rule
1	• Unbundled Local Loop • Unbundled Feeder Loop (UFL) • Unbundled Loop Split	• Each instance of the CKR field on the LS form must be unique from the other instances of the field on the LS form.
2	• Line Sharing/Shared Loop	• Each instance of the CKR field on the LS form must be unique from the other instances of the field on the LS form if TOS = 1N, 2N or 3N. • If CHC=B, this entry is required, and must be formatted in a NPA-NXX-LLLL TN format • For Information Only: If CHC=B, this entry should equal the working TN at the end-users location.
3	• Unbundled Local Loop • Unbundled Loop Split	• This entry is required when Directory Listings are included with a LSR and must be formatted in a NPA-NXX-LLLL TN format. • If CHC=B, this entry is required, and must be formatted in a NPA-NXX-LLLL TN format • For Information Only: If CHC=B, this entry should equal the working TN at the end-users location.
4	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	• This field repeats the same number of times as the value in the LQTY field.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	O	O		O	O		
Line Sharing/Shared Loop					O		
Unbundled Distribution Loop (UDL)	O	O	O		O	O	O
Unbundled Feeder Loop (UFL)	O	O			O		O
Unbundled Local Loop	C	O	C		C	C	O
Unbundled Loop Split	C		C			C	

DATA CHARACTERISTICS: 36 alphanumeric characters

RULE #	Products	Valid Entries
1	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	Virgule (/) is not a valid character.

EXAMPLES:

L	0	0	0	2																											

14. TSP - Telecommunication Service Priority

Indicates the provisioning and restoration priority as defined under the TSP Service Vendor Handbook.

NOTE 1: These codes are assigned by the TSP Program Office.

VALID ENTRIES:

Nine Character TSP Control Identifier
One Character Provisioning Priority Level (E, 0-5)
One Digit Restoration Priority Level (0-5)

NOTE 1: A TSP code ending in "00" indicates TSP is being removed.

USAGE: This field is conditional.

RULE #	Products	Business Rule
1	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	This field repeats the same number of times as the value in the LQTY field.
2	• Unbundled Local Loop • Unbundled Loop Split	When populated, this field will be validated against the valid values.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	O	N		O	O		
Line Sharing/Shared Loop					O		
Unbundled Distribution Loop (UDL)	O	N	O		O	O	O
Unbundled Feeder Loop (UFL)	O	N			O		O
Unbundled Local Loop	C	N	C		C	C	O
Unbundled Loop Split	C		C			C	

DATA CHARACTERISTICS: 12 alphanumeric characters

RULE #	Products	Business Rule
1	• All Products	• A dash is required in position 10

EXAMPLE:

T	S	P	1	2	3	4	5	C	-	E	1

15. SAN - Subscriber Authorization Number

Identifies a number equivalent to the end-user purchase order number.

USAGE: This field is conditional.

N	D	V	Z	C	T	M
C	C	C	C	C	C	C

RULE #	Products	Business Rule
1	• Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • DID/PBX Trunk Port Facility • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	Required if first character of TOS = 3. CLEC is responsible for providing information.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the LQTY field.

DATA CHARACTERISTICS: 30 alphanumeric characters

EXAMPLE:

A	B	1	2	3	4	5	6	7	8																			

16. ECCKT - Exchange Company Circuit ID

Identifies the Qwest circuit identification assigned to the loop or facility.

NOTE 1: The layout of the field may be defined by the COMMON LANGUAGE standards.

VALID ENTRIES:

RULE #	Products	Valid Entries
1	• Unbundled Distribution Loop (UDL) • Line Sharing/Shared Loop • Unbundled Feeder Loop (UFL) • DID/PBX Trunk Port Facility • Unbundled Local Loop • Unbundled Loop Split	Valid ECCKT format: N<n>.AAAA.NNN<nnn>..AA Examples: 29.LXFU.123456..MS (Central) 3.LXFU.123456..PN (Western) 5.LXFU.123456..NW(Eastern) If NNN<nnn> section of the ECCKT has less than three digits, then add leading zeroes, e.g., 5.LXFU.20..NW should be sent as 5.LXFU.020..NW
2	• Unbundled Local Loop	• For CLEC to CLEC Conversions – Not Populated (EDI Only) • Private Line to Unbundled Loop Pricing Conversions – Not Populated

USAGE: This field is conditional.

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • DID/PBX Trunk Port Facility • Unbundled Local Loop • Unbundled Loop Split	• This entry is required on all orders after Qwest makes the initial assignment. • For ACT = D, C, T and M this field is required in the original LSR and any supplements or versions.
2	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop	• This entry is required on all requests after Qwest makes the initial assignment. All components within the ID should be delimited by periods.
3	• DID/PBX Trunk Port Facility	• If ACT= Z this entry is not applicable when converting from Qwest.
4	• Line Sharing/Shared Loop	• If the TOS = 1N, 2N, or 3N, then this field is required. • Each instance of the ECCKT field on the LS form must be unique from the other instances of the field on the LS form if TOS = 1N, 2N or 3N.
5	• Unbundled Local Loop	• ACT = V, CLEC to CLEC conversion, populated if known, otherwise blank. • If ACT = V and converting Private Line to Unbundled Loop Pricing, the field must be blank and the Circuit Identification of the Private Line must be populated in REMARKS.

16. ECCKT - Exchange Company Circuit ID (continued)

RULE #	Products	Business Rule
6	• Unbundled Feeder Loop (UFL) • Unbundled Local Loop	• Each instance of the CFA field on the LS form must be unique from the other instances of the field on the LS form. LOCA values of each CFA must be the same
7	• Unbundled Loop Split	• If ACT = T and LNA = T, then ECCKT is required. • If ACT = T and LNA = N, then ECCKT is not required. • ACT=V, CLEC to CLEC conversion, populated if known, otherwise blank.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	R		C	R		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	N	R	C		R	R	R
Unbundled Feeder Loop (UFL)	N	R			R		R
Unbundled Local Loop	N	R	C		R	R	R
Unbundled Loop Split	N		C			C	

DATA CHARACTERISTICS: 20 alphanumeric characters

2	9	.	L	X	F	U	1	2	3	4	5	6	.	.	M	S			

3	.	L	X	F	U	1	2	3	4	5	6	.	.	P	N				

5	.	L	X	F	U	1	2	3	4	5	6	.	.	N	W				

17. RESID – Response Identifier – Not currently used by Qwest

Identifies the response number assigned by the provider to relate associated transaction.

18. CFA - Connecting Facility Assignment

Identifies the provider carrier system and channel to be used.

NOTE 1: The format and structure of this field is defined by ANSI in document T1.238, Identification of Telecommunication Facilities for the North American Telecommunications System. The Facility Identifier consists of the following elements:

1. **Facility Designation** – A code that, for a specific type of facility, uniquely identifies a path between two network nodes (variable length, 1-5 alpha/numeric characters).
2. **Facility Type** – A code that describes a type of facility when it is other than a single baseband channel on cable. Valid entries are outlined in Telcordia Technologies practice BR-795-450-100 (variable length, 1-6 alpha/numeric characters).
3. **Channel/Pair/Time Slot** – A code that identifies a specific assignable portion of a facility (variable length, 1-5 alpha/numeric characters).
4. **Location A** – A standardized code that uniquely identifies the location of facility terminal A, which has the lower in alpha/numeric sequence of the two facility location codes. Valid values are outlined in Telcordia Technologies practice BR-795-100-100 (8 or 11 alpha/numeric characters).
5. **Location Z** – A standardized code that uniquely identifies the location of facility terminal Z, which has the higher in alpha/numeric sequence of the two facility location codes. Valid values are outlined in Telcordia Technologies practice BR-795-100-100 (8 or 11 alpha/numeric characters).

NOTE 2: Either virgules (/) or periods (.) are used consistently as delimiters to separate all elements of the CFA.

VALID ENTRIES

RULE #	Products	Valid Entries
1	• DID/PBX Trunk Port Facility • Unbundled Local Loop • Unbundled Feeder Loop (UFL) • Unbundled Loop Split	Valid CFA format = CABNM=1 to 10 a/n CABTYP=1 to 13 a/n (a dash is also valid) SLOT = 1 to 5 a/n LOC A = 1 to 11 a/n LOC Z = 1 to 11 a/n All fields should be separated by either a space () or a virgule (/). Example: ALT01 VF-2WIRE 48 ALBQNMMN ALBQNMMNHJ1 Or ALT01/VF-2WIRE/48/ALBQNMMN/ALBQNMMNHJ1
2	• Unbundled Local Loop • Unbundled Loop Split	If the CABTYP value is not known, a placeholder value of 1 – 13 a/n characters is allowed. Placeholder not allowed for supplemental LSRs. For a supplemental where the original LSR contained a placeholder CFA, the correct CFA value appears in the FOC, and should be used to populate the field.

18. CFA - Connecting Facility Assignment (continued)

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	C	N		C	C		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	N	N	N		N	N	N
Unbundled Feeder Loop (UFL)	C	N			C		C
Unbundled Local Loop	C	N	C		C	O	O
Unbundled Loop Split	C		C			R	

RULE #	Products	Business Rule
1	• Unbundled Local Loop	• For all activities except ACT = D, if an entry appears in this field, then the APOT field on the LSR form must be blank. If no entry appears in this field, then the entry is required in the APOT field on the LSR form. • When ACT = C, T or M, this field is required. Each instance of the CFA field on the LS form must be unique from the other instances of the field on the LS form. LOCA values of each CFA must be the same. • Either CFA or APOT on the LSR form is required on ACT = N or V. • When ACT=V, this field is required if CHC=B.
2	• Unbundled Feeder Loop (UFL)	• When ACT = C or M, this field is required. • Each instance of the CFA field on the LS form must be unique from the other instances of the field on the LS form. • LOCA values of each CFA must be the same. • Either CFA or APOT on the LSR form is required on ACT = N and the Sub-Loop is not Intra-Building Cable. If an entry appears in this field, then the APOT field on the LSR form must be blank. If no entry appears in this field, then the entry is required in the APOT field on the LSR form.

18. CFA - Connecting Facility Assignment (continued)

RULE #	Products	Business Rule
3	• DID/PBX Trunk Port Facility	• Required if the LST or APOT field on the LSR form is populated. Note that this field indicates the actual customer's connection at the co-location. CFA indicates where the port is terminating.
4	• Line Sharing/Shared Loop	• If the TOS = 1N, 2N, or 3N, then this field is required. • Each instance of the CFA field on the LS form must be unique from the other instances of the field on the LS form if TOS = 1N, 2N or 3N. • Location A values of each CFA must be the same.
5	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	• This field repeats the same number of times as the value in the LQTY field.
6	• Unbundled Loop Split	• If an entry appears in this field, then the APOT field on the LSR form must be blank. If no entry appears in this field, then the entry is required in the APOT field on the LSR form. • When ACT= T this field is required. Each instance of the CFA field on the LS form must be unique from the other instances of the field on the LS form. LOCA values of each CFA must be the same. • Identifies the Qwest carrier system and channel to be used. Either CFA on the LS form or APOT on the LSR form is required on ACT = N or V. • When ACT=V, this field is required if CHC=B.

DATA CHARACTERISTICS: 54 alphanumeric characters

EXAMPLES:

|A|L|T|0|1| |V|F|-|2|W|I|R|E| |4|8|A|L|B|Q|N|M|M|N|

| |A|L|B|Q|N|M|M|N|H|J|1| | | | | | | | | | | | |

| | | | |

|A|L|T|0|1|/|V|F|-|2|W|I|R|E|/|4|8|/|A|L|B|Q|N|M|M|

|N|/|A|L|B|Q|N|M|M|N|H|J|1| | | | | | | | | | | |

| | | | |

19. CCEA – Cross Connect Equipment Assignment – Not currently used by Qwest

Identifies the physical point of termination at a collocation cage.

20. SYSTEM ID - System Identification – Not currently used by Qwest

Identifies the customer's system to be used in a collocation arrangement.

21. CTI – Connection Type Indicator – Not currently used by Qwest

Identifies the configuration of the facility connection assignment.

22. CABLE ID - Cable Identification – Not currently used by Qwest

Identifies the provider's central office cable to be connected to the customer's collocated equipment.

23. CBCID – Cross Box Cable Identification – Not currently used by Qwest

Identifies Qwest's cable to be connected to the customer's terminal in a field location.

24. CHAN/PAIR - Channel/Pair – Not currently used by Qwest

Identifies the specific channel or pair within the provider's cable to be used for connection.

25. RELAY RACK – Relay Rack – Not currently used by Qwest

A code that identifies the customer's bay/cabinet in a collocation arrangement and may also include the floor and aisle where the specific piece of equipment is located.

26. SHELF - Shelf – Not currently used by Qwest

Identifies the number assigned to the customer's shelf to be used in a collocation arrangement.

27. SLOT - Slot – Not currently used by Qwest

Identifies the customer's specific connection slot to be used in a collocation arrangement.

28. SPORT –Slot Port – Not currently used by Qwest

Identifies the specific connection port of the slot to be used.

29. UNIT – Unit – Not currently used by Qwest

Identifies the number assigned to a panel, shelf or case within the customer's bay/cabinet indicated in the RELAY RACK field.

30. JK CODE - Jack Code – Not currently used by Qwest

Indicates the standard code for the particular registered or non-registered jack used to terminate the service.

31. JK NUM - Jack Number – Not currently used by Qwest

Identifies the number of the jack used on end user connections.

32. JK POS - Jack Position – Not currently used by Qwest

Identifies the position in the jack that a particular service will occupy.

33. JR - Jack Request – Not currently used by Qwest

Indicates a request for a new jack.

34. NIDR - NID Request

Indicates a request for a new network interface device (NID).

VALID ENTRIES:

Y = Yes

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	O	N	O		O	O	O
Unbundled Feeder Loop (UFL)	O	N			O		O
Unbundled Local Loop	O	N	O		O	O	O
Unbundled Loop Split	C		C			C	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	• The NIDR entry is a Y if a NID is requested. • When the LNA = D, NIDR is not applicable.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	• This field repeats the same number of times as the value in the LQTY field.
3	• Unbundled Loop Split	• The NIDR entry is a Y if a NID is requested. • When populated, this field will be validated against valid values.

DATA CHARACTERISTICS: 1 alpha character

EXAMPLE: Y

34a. POTSSPLIT – POTS Splitter – Qwest-Specific Field

Indicates the cable connection point information for POTS Splitter Locations outside the CLEC's cage.

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	N	N	N		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	N		N	N	N
Unbundled Loop Split	C		C			C	

RULE #	Products	Business Rule
1	• Line Sharing/Shared Loop	Required if POTSSPLITLOC = O. When POTSSPLITLOC = R, then this field is not allowed. If CABCONN, CABCONNTYP, or CABCONNQTY is populated, this field is not allowed.
2	• Unbundled Loop Split	• Required if POTSSPLITLOC = O. • If CABCONN, CABCONNTYP, or CABCONNQTY is populated, this field is not allowed.

DATA CHARACTERISTICS: 38 alphanumeric characters

EXAMPLE:

V	D	A	.	1	2	3	4	5	6	7	.	1	2	.	1	2	/	1	2	3			

34b. POTSSPLITLOC – POTS Splitter Location – Qwest-Specific Field

Indicates if the POTS Splitter is inside or outside the CLEC's cage or at a remote location.

VALID ENTRIES:

RULE #	Products	Business Rule
1	• Line Sharing/Shared Loop • Unbundled Loop Split	I = Inside collocation cage O = Outside collocation cage R = Remote (Not valid for Unbundled Loop)

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	N	N	N		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	N		N	N	N
Unbundled Loop Split	C		C			C	

RULE #	Products	Business Rule
1	• Line Sharing/Shared Loop	Required when LNA is N, V, or M. If 2nd TOS Characters = 'N' for Loop Splitting then value of 'R' is invalid.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the LQTY field.
3	• Unbundled Loop Split	• Required when splitting the Loop, at least one POTSSPLITLOC must be on the request in the Service Details section. • Value of 'R' is invalid.

DATA CHARACTERISTICS: 1 alpha character

EXAMPLE: I

34c. CABCONNQTY – Cable Connection Quantity – Qwest-Specific Field

Indicates the number of cable connections being specified.

VALID ENTRIES:

RULE #	Products	Valid Entries
1	• Unbundled Feeder Loop (UFL) • Unbundled Distribution Loop (UDL)	0-9
2	• Line Sharing/Shared Loop	0,1

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	C	N	C		C	C	C
Unbundled Feeder Loop (UFL)	R	N			C		C
Unbundled Local Loop	N	N	N		N	N	N
Unbundled Loop Split	C		C			C	

RULE #	Products	Business Rule
1	• All Products	This field identifies the number of times the following two fields repeat: CABCONNTYP, CABCONN.
2	• Unbundled Distribution Loop (UDL)	Required if Unbundled Distribution Loop NC/NCI/SECNCI codes are used on the LSR. Optional if Intra-Building Cable NC/NCI/SECNCI codes are used on the LSR.
3	• Unbundled Feeder Loop (UFL)	Required for ACT = N. For ACT = C or M required if CLEC is changing cable connection.
4	• Line Sharing/Shared Loop	Required to be 1 when POTSSPLITLOC = I and CABCONNTYP = B. When POTSSPLITLOC = R, then this field must be "0". If POTSSPLIT is populated, this field is not allowed.
5	• Unbundled Loop Split	Required to be 1 when POTSSPLITLOC = I and CABCONNTYP = B. If POTSSPLIT is populated, this field is not allowed.
6	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the LQTY field.

DATA CHARACTERISTICS: 1 numeric character

EXAMPLE: 9

34d. CABCONNTYP – Cable Connection Type – Qwest-Specific Field

Indicates which Cable Connection Type is being specified in CABCONN.

VALID ENTRIES:

RULE #	Products	Valid Entries
1	• Unbundled Feeder Loop (UFL)	First Character = E (DS1)
2	• Unbundled Distribution Loop (UDL)	First Character = D (DS0)
3	• Line Sharing/Shared Loop	B = Voice

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	C	N	C		C	C	C
Unbundled Feeder Loop (UFL)	R	N			C		C
Unbundled Local Loop	N	N	N		N	N	N
Unbundled Loop Split	C		C			C	

RULE #	Products	Business Rule
1	• Unbundled Feeder Loop (UFL)	Required if ACT = N. For ACT = C or M required if CABCONNQTY is greater than 0.
2	• Unbundled Distribution Loop (UDL)	Required if Unbundled Distribution Loop NC/NCI/SECNCI codes are used on the LSR. Optional if Intra-Building Cable NC/NCI/SECNCI codes are used on the LSR.
3	• Line Sharing/Shared Loop	Required to be B when POTSSPLITLOC = I. When POTSSPLITLOC = R, then this field is not allowed. If POTSSPLIT is populated, this field is not allowed.
4	• Unbundled Loop Split	Required to be B when POTSSPLITLOC = I. If POTSSPLIT is populated, this field is not allowed.
5	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the CABBCONNQTY field.

DATA CHARACTERISTICS: 2 alphanumeric characters

EXAMPLE: | D | |

34e. CABCONN– Cable Connection – Qwest-Specific Field

Identifies the cable connection point information locations inside the CLECs cage.

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	C	N	C		C	C	C
Unbundled Feeder Loop (UFL)	R	N			C		C
Unbundled Local Loop	N	N	N		N	N	N
Unbundled Loop Split	C		C			C	

RULE #	Products	Business Rule
1	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	All instances of this field for one LSR must be in the same format, either the old format (starting with the CLEC's ZCID) or the new format (starting with the VDA)
2	• Unbundled Distribution Loop (UDL)	Required if Unbundled Distribution Loop NC/NCI/SECNCI codes are used on the LSR. Optional if Intra-Building Cable NC/NCI/SECNCI codes are used on the LSR.
3	• Unbundled Feeder Loop (UFL)	Required for ACT = N. Required if CABCONNQTY is greater than 0.
4	• Line Sharing/Shared Loop	Required when POTSSPLITLOC = I. When POTSSPLITLOC = R, then this field is not allowed. If POTSSPLIT is populated, this field is not allowed.
5	• Unbundled Loop Split	Required when POTSSPLITLOC = I. If POTSSPLIT is populated, this field is not allowed.
6	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the CABCONNQTY field.

DATA CHARACTERISTICS: 38 alphanumeric characters

EXAMPLE:

| V | D | A | . | O | A | L | T | 0 | 1 | . | 3 | C | 0 | 1 |

35. IWJK - Inside Wire Jack Code

Indicates the standard code for the type of jack requested for inside wiring.

USAGE: This field is optional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	O	N	N		O	N	O
Unbundled Feeder Loop (UFL)	O	N			O		O
Unbundled Local Loop	O	N	O		O	O	O
Unbundled Loop Split	O		O			O	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	Valid only in states where CLEC has negotiated inside wiring. This entry is not applicable when LNA = D.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the CABCONNQTY field.

DATA CHARACTERISTICS: 5 alphanumeric characters

EXAMPLE: | R | J | 2 | 1 | X |

36. IWJQ - Inside Wire Jack Quantity

Indicates the number of jacks requested for inside wiring.

VALID ENTRIES:
01-99

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	C	N	C		C	C	C
Unbundled Feeder Loop (UFL)	C	N			C		C
Unbundled Local Loop	C	N	C		C	C	C
Unbundled Loop Split	C		C			C	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	If the field IWJK is populated, then IWJQ must be greater than zero. If field IWJK not populated, IWJQ cannot be populated.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop	This field repeats the same number of times as the value in the CABCONNQTY field.

DATA CHARACTERISTICS: 2 numeric characters

EXAMPLE: | 0 | 1 |

37. DISC NBR - Disconnect Telephone Number

Identifies the end user telephone number to be disconnected.

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	For ACT = V and LNA is less than or greater than N, then this field is required if converting from Qwest Resale to Unbundled Loop. For ACT = V, and the conversion is done CLEC to CLEC, then this field is not applicable.
2	• All Products	This field is used for partial disconnects only.

DATA CHARACTERISTICS: 12 alphanumeric characters

RULE #	Products	Valid Entries
1	• Unbundled Local Loop • Unbundled Distribution Loop (UDL) • Unbundled Loop Split	• Dashes are required in positions 4 & 8.

EXAMPLE: | 2 | 0 | 1 | - | 6 | 9 | 9 | - | 1 | 2 | 3 | 4 |

38. TER - Terminal Number – Not currently used by Qwest

Identifies a non-lead line in a multi-line hunt group.

39. TC OPT - Transfer of Call Options

Identifies the type of transfer of call option the end user has requested.

VALID ENTRIES:

Custom Code Identifier

N = None (basic intercept message - no new number referral)
S = Standard (i.e. forwarded to the new number)
T = Split Transfer of Calls (i.e. forwarded to multiple new numbers)
O = Operator Referral – Not currently used by Qwest
Not populated (basic intercept message – no new NBR referral) (EDI Only)

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	If ACT = V and LNA = D, then this field is required.
2	• All Products	This field is used for partial disconnects only.

DATA CHARACTERISTICS: 1 alphanumeric character

EXAMPLES: S

T

40. TC TO PRI - Transfer of Calls To Primary Number

Identifies the telephone number to which calls are to be referred.

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Valid Entries
1	• Unbundled Local Loop • Unbundled Distribution Loop (UDL) • Unbundled Loop Split	• When TC OPT = S or T, then this field is required.
2	• All Products	• This field is used for partial disconnects only.

DATA CHARACTERISTICS: 12 alphanumeric characters

RULE #	Products	Valid Entries
1	• Unbundled Local Loop • Unbundled Distribution Loop (UDL) • Unbundled Loop Split	• Dashes are required in positions 4 & 8.

EXAMPLE:

2	0	1	-	6	9	9	-	1	2	3	4

40a. TCID – Transfer of Calls to Identifier – Qwest Specific Field

Identifies the intercept message requested for a primary telephone number associated with intercept service.

VALID ENTRIES:

TCID ENTRY	TYPE OF SERVICE	DESCRIPTION	AUTOMATED MESSAGE
Blank (GUI or manual) Not Populated (EDI Only)	Basic	Disconnect message, No referral	"This number, (#), has been disconnected." (REPEAT)
04	Basic	Number Change, Non-List, No referral	"The number, (#), has been changed to a non-listed number." (REPEAT)
05	Basic	Number Change, Non-Published, No referral	"The number, (#), has been changed to a non-published number." (REPEAT)
06	Basic	Number Change, Not yet connected, No referral	"The number, (#), is not yet connected. (REPEAT) Please try your call again."
25	New Number Referral	Disconnect, Referral to New Number	"The number, (#), has been disconnected. Calls are being taken by (#)." (REPEAT)
30	Basic	Temporary Disconnect, No referral customer request	"At the customer's request, (#), has been temporarily disconnected." (REPEAT)
39	Basic	Temporary Disconnect, No referral - non-pay	"The number, (#), has been temporarily disconnected. (REPEAT) No further information is available about this number."
45	New Number Referral	Temporary Disconnect, Referral to New Number	"At the customer's request, (#), has been temporarily disconnected. Calls are being taken by (#)." (REPEAT)
55	New Number Referral	Number Change, Referral to New Number	"The number, (#), has been changed to (#). (REPEAT)
65	New Number Referral	Temporary Number Change, Referral to Another Number	"The number, (#), has been temporarily changed to (#). (REPEAT)

40a. TCID – Transfer of Calls to Identifier – Qwest Specific Field-continued

TCID ENTRY	TYPE OF SERVICE	DESCRIPTION	AUTOMATED MESSAGE
70	Split Number Referral	Split Number Referral	Operator asks caller, "Who are you calling?" • When name or similar name from the list is given, the caller is provided the number. • When name does not appear on the list, the caller is advised that the name does not appear and all names listed are provided. If caller wants number for one or more of the names, then number(s) are provided. • When caller cannot provide a name, caller is provided with all names & numbers from the list. • When a name, similar name or portion of a name (first or last name) from the list is given, the caller is provided the number.
71	Split Number Referral	Split Number Referral, Exact Match	Operator asks caller, "Who are you calling? Exact First Name Only (FNO): • When a caller provides exact first name, then number is provided. • When caller does NOT provide exact first name, number is NOT provided and the operator provides a disconnect report. Last Name Only (LNO): • When caller provides exact last name, the number is provided. • When caller does not provide exact last name, number is NOT provided and the operator provides a disconnect report. Complete Name Only (CNO): • When caller provides exact match of complete first and last name, number is provided. • When caller does not provide exact match of complete first and last name, number is NOT provided and the operator provides a disconnect report.
74	Basic	TTY Basic Intercept, No referral – Not currently used by Qwest	
75	New Number Referral	TTY Number Change, Referral to New Number – Not currently used by Qwest	

40a. TCID – Transfer of Calls to Identifier – Qwest Specific Field-continued

TCID ENTRY	TYPE OF SERVICE	DESCRIPTION	AUTOMATED MESSAGE
76	New Number Referral	TTY Disconnect, Referral to New Number – Not currently used by Qwest	

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	If TC OPT is populated with S or T, then an entry is required.
2	• All Products	This field is used for partial disconnects only.

DATA CHARACTERISTICS: 2 numeric characters

EXAMPLE:

7	0

40b. TC Name – Transfer of Call to Name– Qwest Specific Field

Identifies the name associated with TC TO PRI to which calls are to be referred when split transfer of calls is requested.

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	If TC OPT is populated with S or T, then an entry is required.
2	• All Products	This field is used for partial disconnects only.

DATA CHARACTERISTICS:	35 alphanumeric characters

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	Virgule (/) is not a valid character.

EXAMPLE:

| J | O | H | N | | Q | | P | U | B | L | I | C | | | | | | | | | | | |

| | | | | | | | | | |

41. TC TO SEC - Transfer of Calls To Secondary Number

Identifies the secondary telephone number to which calls are to be referred on a split transfer of calls.

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	If TC OPT is populated with T , then an entry is required.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	Fields TC TO SEC, TCID, & TC NAME as a group represents a secondary set of information within the Transfer of Calls Section; it repeats for as many "additional" parties requested.

DATA CHARACTERISTICS: 12 alphanumeric characters

RULE #	Products	Business Rule
1	• Unbundled Local Loop • Unbundled Distribution Loop (UDL) • Unbundled Loop Split	• Dashes are required in positions 4 & 8.

EXAMPLE:

2	0	1	-	6	9	9	-	1	2	3	4

42. TCID - Transfer of Calls To Identifier

Identifies the intercept message for secondary telephone number associated with split transfer of calls.

VALID ENTRIES:

TCID ENTRY	TYPE OF SERVICE	DESCRIPTION	AUTOMATED MESSAGE
Blank (GUI or manual) Not Populated (EDI) only	Basic	Disconnect message, No referral	"This number, (#), has been disconnected." (REPEAT)
04	Basic	Number Change, Non-List, No referral	"The number, (#), has been changed to a non-listed number." (REPEAT)
05	Basic	Number Change, Non-Published, No referral	"The number, (#), has been changed to a non-published number." (REPEAT)
06	Basic	Number Change, Not yet connected, No referral	"The number, (#), is not yet connected. (REPEAT) Please try your call again."
25	New Number Referral	Disconnect, Referral to New Number	"The number, (#), has been disconnected. Calls are being taken by (#)." (REPEAT)
30	Basic	Temporary Disconnect, No referral customer request	"At the customer's request, (#), has been temporarily disconnected." (REPEAT)
39	Basic	Temporary Disconnect, No referral - non-pay	"The number, (#), has been temporarily disconnected. (REPEAT) No further information is available about this number."
45	New Number Referral	Temporary Disconnect, Referral to New Number	"At the customer's request, (#), has been temporarily disconnected. Calls are being taken by (#)." (REPEAT)
55	New Number Referral	Number Change, Referral to New Number	"The number, (#), has been changed to (#). (REPEAT)
65	New Number Referral	Temporary Number Change, Referral to Another Number	"The number, (#), has been temporarily changed to (#). (REPEAT)

42. TCID - Transfer of Calls To Identifier – continued

TCID ENTRY	TYPE OF SERVICE	DESCRIPTION	AUTOMATED MESSAGE
70	Split Number Referral	Split Number Referral	Operator asks caller, "Who are you calling?" • When name or similar name from the list is given, the caller is provided the number. • When name does not appear on the list, the caller is advised that the name does not appear and all names listed are provided. If caller wants number for one or more of the names, then number(s) are provided. • When caller cannot provide a name, caller is provided with all names & numbers from the list. • When a name, similar name or portion of a name (first or last name) from the list is given, the caller is provided the number.
71	Split Number Referral	Split Number Referral, Exact Match	Operator asks caller, "Who are you calling? Exact First Name Only (FNO): • When a caller provides exact first name, then number is provided. • When caller does NOT provide exact first name, number is NOT provided and the operator provides a disconnect report. Last Name Only (LNO): • When caller provides exact last name, the number is provided. • When caller does not provide exact last name, number is NOT provided and the operator provides a disconnect report. Complete Name Only (CNO): • When caller provides exact match of complete first and last name, number is provided. • When caller does not provide exact match of complete first and last name, number is NOT provided and the operator provides a disconnect report.
74	Basic	TTY Basic Intercept, No referral – Not currently used by Qwest	
75	New Number Referral	TTY Number Change, Referral to New Number – Not currently used by Qwest	

42. TCID - Transfer of Calls To Identifier – continued

TCID ENTRY	TYPE OF SERVICE	DESCRIPTION	AUTOMATED MESSAGE
76	New Number Referral	TTY Disconnect, Referral to New Number – Not currently used by Qwest	Business [illegible]

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	If TC OPT is populated with T, then an entry is required.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	Fields TC TO SEC, TCID, & TC NAME as a group represents a secondary set of information within the Transfer of Calls Section; it repeats for as many "additional" parties requested.

DATA CHARACTERISTICS: 2 numeric characters

EXAMPLE: | 3 | 0 |

43. TC NAME - Transfer of Calls To Name

Identifies the name(s) associated with TC TO SEC fields to which calls are referred when split transfer of calls is requested.

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	If TC OPT is populated with T, then an entry is required.
2	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	Fields TC TO SEC, TCID, & TC NAME as a group represents a secondary set of information within the Transfer of Calls Section; it repeats for as many "additional" parties requested.

DATA CHARACTERISTICS: 35 alpha/numeric characters

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	Virgule (/) is not a valid character.

EXAMPLES:

S	A	L	L	Y		J	O	N	E	S															

A	L	L		O	T	H	E	R		N	A	M	E	S											

44. TC PER - Transfer of Calls Period

Indicates the requested date that the transfer of calls, specified in the TC TO PRI field, is to be removed and the standard recorded announcement is to be provided.

VALID ENTRIES:

RULE #	Products	Business Rule
1	• Unbundled Local Loop • Unbundled Distribution Loop (UDL) • Unbundled Loop Split	• CCYYMMDD

USAGE: This field is conditional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	N	N		N	N		
Line Sharing/Shared Loop					N		
Unbundled Distribution Loop (UDL)	N	N	C		N	N	N
Unbundled Feeder Loop (UFL)	N	N			N		N
Unbundled Local Loop	N	N	C		N	N	N
Unbundled Loop Split	N		C			N	

RULE #	Products	Business Rule
1	• Unbundled Distribution Loop (UDL) • Unbundled Local Loop • Unbundled Loop Split	If TC OPT is populated with S or T, then an entry is required.

DATA CHARACTERISTICS: 8 alphanumeric characters

EXAMPLES:

2	0	0	2	1	0	1	9

2	0	0	2	0	3	0	7

45. LEAN - Line Existing Account Number – Not currently used by Qwest

Identifies the end user's existing account number assigned by the current NSP and/or LSP.

46. LEATN - Line Existing Account Telephone Number – Not currently used by Qwest

Identifies the end user's existing account telephone number assigned by the old LSP.

47. REMARKS - Remarks

Identifies a free flowing field that can be used to expand upon and clarify other data on this form.

USAGE: This field is optional.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	O	O		O	O		
Line Sharing/Shared Loop					O		
Unbundled Distribution Loop (UDL)	O	O	O		O	O	O
Unbundled Feeder Loop (UFL)	O	O			O		O
Unbundled Local Loop	O	O	O		O	O	O
Unbundled Loop Split	O		O			O	

RULE #	Products	Business Rule
1	• DID/PBX Trunk Port Facility	• This field should be used for PIC/LPIC as well as TNs information.
2	• Line Sharing/Shared Loop	• For Shared Loop, all request information is contained in the LSR remarks section when POTSSPLITLOC = "R".

DATA CHARACTERISTICS: 255 alphanumeric characters

EXAMPLE:

DISC SERVICE

47a. Manual IND – Manual Indicator – Qwest-Specific Field

Indicates that the CLEC has provided information in the Remarks section that must be processed manually by the Qwest Service Center.

VALID ENTRIES:

RULE #	Products	Business Rule
1	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	'Y' – REMARKS must be processed manually. 'N' – REMARKS do not need manual attention. Not Populated (EDI only)

USAGE: This field is conditional.

RULE #	Products	Business Rule
1	• DID/PBX Trunk Port Facility • Line Sharing/Shared Loop • Unbundled Distribution Loop (UDL) • Unbundled Feeder Loop (UFL) • Unbundled Local Loop • Unbundled Loop Split	MANUAL IND must be set to Y by the Co-Provider if the REMARKS field contains information that must be processed manually by the Qwest Service Center or if any other rule indicates the MANUAL IND should be set to 'Y'. Otherwise, the MANUAL IND should be set to 'N'.

PRODUCT	ACTIVITY TYPE						
	N	D	V	Z	C	T	M
DID/PBX Trunk Port Facility	C	C		C	C		
Line Sharing/Shared Loop					C		
Unbundled Distribution Loop (UDL)	C	C	C		C	C	C
Unbundled Feeder Loop (UFL)	C	C			C		C
Unbundled Local Loop	C	C	C		C	C	C
Unbundled Loop Split	C		C			C	

DATA CHARACTERISTICS: 1 character

EXAMPLES: Y

48. TCMI – Transfer of Call Message Indicator – Not currently used by Qwest

Associates the transfer of call message with the TCID of the telephone number for which the message is being requested.

49. TCMESS – Transfer of Calls Message – Not currently used by Qwest

Allows for a personalized message when requesting the transfer of calls option.

3.5 ALPHA NUMERIC GLOSSARY

The following table is an alpha/numeric cross-reference glossary of the Loop Service Form fields.

LS FORM

Field Abbreviation	Field #	Field Name
AN	3	Account Number
ATN	4	Account Telephone Number – Not currently used by Qwest
BTRL	12	Bridged Tap Removal Location – Not currently used by Qwest
CABCONN	34e	Cable Connection – Qwest Specific Field
CABCONNQTY	34c	Cable Connection Quantity – Qwest-Specific Field
CABCONNTYP	34d	Cable Connection Type – Qwest-Specific Field
CABLE ID	22	Cable Identification – Not currently used by Qwest
CBCID	23	Cross Box Cable Identification – Not currently used by Qwest
CCEA	19	Cross Connect Equipment Assignment – Not currently used by Qwest
CFA	18	Connecting Facility Assignment
CHAN/PAIR	24	Channel/Pair – Not currently used by Qwest
CKR	13	Customer Circuit Reference
CTI	21	Connection Type Indicator – Not currently used by Qwest
DISC NBR	37	Disconnect Telephone Number
ECCKT	16	Exchange Company Circuit ID
IWJK	35	Inside Wire Jack Code
IWJQ	36	Inside Wire Jack Quantity
JK CODE	30	Jack Code – Not currently used by Qwest
JK NUM	31	Jack Number – Not currently used by Qwest
JK POS	32	Jack Position – Not currently used by Qwest
JR	33	Jack Request – Not currently used by Qwest
LEAN	45	Line Existing Account Number – Not currently used by Qwest
LEATN	46	Line Existing Account Telephone Number – Not currently used by Qwest
LINE SHARED TN	6a	Line Shared Telephone Number – Qwest-Specific Field
LMT	11	Loop Modification Type – Not currently used by Qwest
LNA	9	Line Activity
LNUM	8	Line Number
LOCNUM	7	Location Number
LQTY	5	Loop Quantity
MANUAL IND	47a	Manual Indicator – Qwest-Specific Field

3.5 ALPHANUMERIC GLOSSARY (continued)

LS FORM (continued)

Field Abbreviation	Field #	Field Name
NIDR	34	NID Request
PG_of_	6	Page _ of _
PON	1	Purchase Order Number
POTSSPLIT	34a	POTS Splitter – Qwest-Specific Field
POTSSPLITLOC	34b	POTS Splitter Location – Qwest-Specific Field
RELAY RACK	25	Relay Rack – Not currently used by Qwest
REMARKS	47	Remarks
RESID	17	Response Identifier – Not currently used by Qwest
SAN	15	Subscriber Authorization Number
SHELF	26	Shelf – Not currently used by Qwest
SLOT	27	Slot – Not currently used by Qwest
SLTN	10	ShSared Line Telephone Number – Not currently used by Qwest
SPORT	28	Slot Port – Not currently used by Qwest
SYSTEM ID	20	System Identification – Not currently used by Qwest
TCID	40a	Transfer of Calls To Identifier
TCID (Transfer of Calls Secondary Section)	42	Transfer of Calls To Identifier
TCMESS	49	Transfer of Calls Message – Not currently used by Qwest
TCMI	48	Transfer of Call Message Indicator – Not currently used by Qwest
TC NAME	40b	Transfer of Calls To Name
TC NAME (Transfer of Calls Secondary Section)	43	Transfer of Calls To Name
TC OPT	39	Transfer of Call Options
TC PER	44	Transfer of Calls Period
TC TO PRI	40	Transfer of Calls To Primary Number
TC TO SEC	41	Transfer of Calls To Secondary Number
TER	38	Terminal Number – Not currently used by Qwest
TSP	14	Telecommunications Service Priority
UNIT	29	Unit – Not currently used by Qwest
VER	2	Version Identification

Qwest

Loop Service

Effective
11/18/2002

Administrative Section

PON 1 | VER 2 | AN 3 | ATN 4 - - | LQTY 5 | PG_ of_ 6

Service Details

LINE SHARED TN 6a - - | LOCNUM 7 | LNUM 8 | LNA 9 | SLTN 10 | LMT 11 | BTRL 12

CKR 13 | TSP 14 - | SAN 15

ECCKT 16 | RESID 17

CFA 18

CCEA 19 | SYSTEM ID 20 | CTI 21 | CABLE ID 22

CBCID 23 | CHAN/PAIR 24 | RELAY RACK 25 | SHELF 26 | SLOT 27 | SPORT 28 | UNIT 29 | JKCODE 30 | JK NUM 31 | JK POS 32 | JR 33 | NIDR 34

POTSSPLIT 34a | POTSSPLITLOC 34 b | CABCONNQTY 34 c

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

IWJK 35 | IWJQ 36 | IWJK 35 | IWJQ 36 | IWJK 35 | IWJQ 36 | IWJK 35 | IWJQ 36

DISC NBR 37 - - | TER 38 | TC OPT 39 | TC TO PRI 40 - - | TCID 40a | TC NAME 40b

TC TO SEC 41 - - | TCID 42 | TC NAME 43 | TC PER 44

LEAN 45 | LEATN 46

Qwest

Loop Service (Continued)

Effective
11/18/2002

Administrative Section

PON 1 | VER 2 | AN 3 | ATN 4 - - | LQTY 5 | PG_ of_ 6

Service Details

LINE SHARED TN 6a - - | LOCNUM 7 | LNUM 8 | LNA 9 | SLTN 10 | LMT 11 | BTRL 12

CKR 13 | TSP 14 - | SAN 15

ECCKT 16 | RESID 17

CFA 18

CCEA 19 | SYSTEM ID 20 | CTI 21 | CABLE ID 22

CBCID 23 | CHAN/PAIR 24 | RELAY RACK 25 | SHELF 26 | SLOT 27 | SPORT 28 | UNIT 29 | JKCODE 30 | JK NUM 31 | JK POS 32 | JR 33 | NIDR 34

POTSSPLIT 34a | POTSSPLITLOC 34 b | CABCONNQTY 34 c

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

CABCONNTYP 34d | CABCONN 34e

IWJK 35 | IWJQ 36 | IWJK 35 | IWJQ 36 | IWJK 35 | IWJQ 36 | IWJK 35 | IWJQ 36

DISC NBR 37 - - | TER 38 | TC OPT 39 | TC TO PRI 40 - - | TCID 40a | TC NAME 40b

Qwest

Loop Service (Continued)

Effective
11/18/2002

Administrative Section

PON	VER	AN	ATN	LQTY	PG_ of_
1	2	3	4 - -	5	6

REMARKS

47

MANUAL ID	TCMI	TCMESS
47 a	48	49

Arizona
T-03632A-04-0425
COVAD 02-007

INTERVENOR: Covad Communications Company

REQUEST NO: 007

Please identify Covad's "official bill of record."

RESPONSE:

Covad's official bill of record is the paper bill for CRIS and BART billing.
Covad's official bill of record is the electronic bill for IABS billing.

Respondent: Bill Easton

Arizona
T-03632A-04-0425
COVAD 02-008

INTERVENOR: Covad Communications Company

REQUEST NO: 008

Please identify which Qwest systems house the splitter information for shared loops.

RESPONSE:

SWITCH

Respondent: Renee Albersheim

Arizona
T-03632A-04-0425
COVAD 02-009

INTERVENOR: Covad Communications Company

REQUEST NO: 009

Please identify the source, in Qwest system(s), of the TN based circuit ID contained in the ECCKT field on FOCs provided by Qwest to Covad (CLECs).

RESPONSE:

The Flow Through System ("FTS"), a component of Interconnect Mediated Access ("IMA"), creates the ECCKT value in the end-user order section of the FOC by combining a static prefix (the combination of the state code and the letters "UAFU") with the end-user TN which is retrieved from the LSR. The ECCKT field in the shared loop order section of the FOC is not populated. Qwest Back office systems are not used to generate the ECCKT value that is created for the end-user order section of the FOC.

Respondent: Renee Albersheim

Arizona
T-03632A-04-0425
COVAD 02-010

INTERVENOR: Covad Communications Company

REQUEST NO: 010

Please state whether Qwest's CRIS is capable of producing a bill with a populated ECCKT field.

RESPONSE:

No. The ECCKT field does not exist in Qwest's back office billing systems. Qwest's CRIS billing output files will contain a value for a circuit ID if the product being billed has a circuit ID, such as a designed service like an unbundled loop, and this value has been passed to CRIS when the product is ordered and provisioned. The circuit ID is not populated on CRIS bills for shared loops.

Respondent: Renee Albersheim

EXHIBIT

C-8

admitted

COVAD – 8

This document can be found at
http://www.dora.state.co.us/puc/notices/IconnectAgreements/IconnectksWireline.htm

AT&T Communications of the Mountain States, Inc.

and

U S WEST Communications, Inc.

INTERCONNECTION AGREEMENT

BUSINESS PROCESSES

Section 1. General Business Requirements

With respect to access to all databases referenced or described in this Attachment 8, AT&T is entitled to receive all relevant data relating to its own customers. USWC shall not create or seek to sustain any competitive advantage for itself in maintaining such data. To the extent, however, that certain limited database requests are desired by AT&T, these should be pursued through the BFR process, set forth in the General Section of this Agreement, in which the costs, if any, can be properly borne by the requesting Party(ies).

U S WEST and AT&T shall work towards and participate in standards-setting proceedings to further development of applicable national standards. When such national standards are available, the parties shall proceed promptly to implement them within their operational support systems. The parties will make their best efforts to fully implement national interface standards governing all of the operational support systems contained within this Agreement by July 1, 1998, unless modified further by FCC rulemaking on this issue.

1.1 Procedures

1.1.1 USWC Contact with Subscribers

1.1.1.1 At all times, AT&T shall be the primary (single and sole) contact and account control for all interactions with its subscribers, except as specified by AT&T. AT&T subscribers include active AT&T customers as well as those for whom service orders are pending.

1.1.1.2 USWC shall ensure that any USWC personnel who may receive customer inquiries, or otherwise have opportunity for subscriber contact: (a) provide appropriate referrals and telephone numbers to subscribers who inquire about AT&T services or products; (b) do not in any way disparage or discriminate against AT&T, or its products or services; and (c) do not provide information about USWC products or services during that same inquiry or subscriber contact.

1.1.1.3 USWC shall not use AT&T's request for subscriber information, order submission, or any other aspect of AT&T's processes or services to aid USWC's marketing or sales efforts.

1.1.2 Expedite and Escalation Procedures

1.1.2.1 Ongoing work-site to work-site communications occur in the course of providing service. When those contacts fail to resolve specific service performance problems, AT&T shall have the right to invoke escalation procedures. USWC shall provide documentation of this process on a seven (7) day, twenty-four (24) hour basis, for each USWC office which serves AT&T. This documentation is required within thirty (30) days of the Effective Date of this Agreement; changes are to be provided by USWC to AT&T in writing within one (1) week of their occurrence.

1.1.2.2 No later than sixty (60) days after the Effective Date of this Agreement, USWC and AT&T shall develop mutually acceptable escalation and expedite

3.1.5 Each Connectivity Bill shall set forth the quantity and description of each such service provided and billed to AT&T. All Connectivity Charges billed to AT&T shall indicate the state from which such charges were incurred.

3.1.6 USWC shall bill AT&T for each service supplied by USWC to AT&T pursuant to this Agreement at the rates set forth in Attachment 1 to this Agreement.

3.1.7 USWC shall bill AT&T for the Connectivity Charges incurred; provided however, that, for those usage based Connectivity Charges where actual charge information is not determinable by USWC because the jurisdiction (i.e., interstate, interstate/interLATA, intrastate, intrastate/ intraLATA, local) of the traffic is unidentifiable, or for any other reason, the Parties shall jointly develop a process to determine the appropriate charges.

3.1.8 Measurement of usage-based Connectivity Charges shall be in actual conversation seconds. The total conversation seconds per chargeable traffic types shall be totaled for the entire monthly bill cycle and then rounded to the next whole minute.

3.1.9 USWC shall provide to AT&T at no additional charge a Single Point of Contact for handling any Connectivity Billing questions or problems that may arise during the implementation and performance of the terms and conditions of this Agreement.

3.1.10 USWC shall provide Single Point of Contact for handling of any data exchange questions or problems that may arise during the implementation and performance of the terms and conditions of this Agreement.

3.1.11 As soon as possible after the Effective Date of this Agreement, each Party shall provide the other Party written notice of which form of the monthly Connectivity Bill is to be deemed the official bill to assist the Parties in resolving any conflicts that may arise between the official bill and another form of bill received via a different media which purportedly contain the same charges as are on the official bill.

3.1.12 If either Party requests an additional copy(ies) of a bill, such Party shall pay the other Party a reasonable fee per additional bill copy, unless such copy was requested due to errors, omissions, or corrections or the failure of the transmission to comply with the specifications set forth in this Agreement.

3.1.13 When sending Connectivity Bills via electronic transmission, to avoid transmission failures or the receipt of Connectivity Billing information that cannot be processed, AT&T shall provide USWC with process specifications. USWC shall comply with mutually agreed upon processing specifications when USWC transmits Connectivity Billing data to AT&T. AT&T shall provide to USWC notice if a Connectivity Billing transmission is received that does not meet AT&T specifications or that such Party cannot process. Such transmission shall be corrected and resubmitted to AT&T, at USWC's sole expense, in a form that can be processed.

3.1.13.1 The payment due date for such submitted transmissions shall be thirty (30) calendar days from the date the transmission is received in a form that can be processed and that meets the specifications set forth in this Attachment.

EXHIBIT

C-10

admitted

COVAD – 10

This document can be found at http://www.sbc.com/Large-Files/RIMS/Interconnection_Agreements/Comcast_Phone_of_Michigan_LLC/a_Comcast_5-20-02.pdf

INTERCONNECTION AGREEMENT UNDER SECTIONS 251 AND 252 OF THE TELECOMMUNICATIONS ACT OF 1996

Dated as of

_____

by and between

MICHIGAN BELL TELEPHONE COMPANY
D/B/A AMERITECH MICHIGAN

and

COMCAST TELECOMMUNICATIONS OF MICHIGAN, LLC

3161478v1
19099/075061

ARTICLE XXVI
BILLING

26.1 Billing. Each Party will bill all applicable charges, at the rates set forth herein, in the Pricing Schedule and as set forth in applicable tariffs or contracts referenced herein, for the services provided by that Party to the other Party in accordance with this **Article XXVI** and the Implementation Plan.

26.2 Recording. To the extent technically feasible, the Parties shall record call detail information associated with calls originated or terminated to the other Party as specifically required herein.

26.3 Payment of Charges. Subject to the terms of this Agreement, Requesting Carrier and Ameritech will pay each other undisputed amounts due within sixty (60) calendar days from the date of an invoice (the **"Bill Due Date"**). If the Bill Due Date is on a day other than a Business Day, payment will be made on the next Business Day. Payments shall be made in U.S. Dollars via electronic funds transfer to the other Party's bank account. Within thirty (30) days of the Effective Date, the Parties shall provide each other the name and address of its bank, its account and routing number and to whom payments should be made payable. If such banking information changes, each Party shall provide the other Party at least sixty (60) days' written notice of the change and such notice shall include the new banking information. If a Party receives multiple invoices which are payable on the same date, such Party may remit one payment for the sum of all amounts payable to the other Party's bank. Each Party shall provide the other Party with a contact person for the handling of payment questions or problems.

26.4 Late Payment Charges. If either Party fails to remit payment for any charges for services by the Bill Due Date, or if a payment or any portion of a payment is received by either Party after the Bill Due Date, or if a payment or any portion of a payment is received in funds which are not immediately available to the other Party as of the Bill Due Date (individually and collectively, **"Past Due"**), then a late payment charge may be assessed; provided, however, Ameritech's billing system will automatically access late payment charges and will refund such charges when appropriate. Past Due amounts shall accrue interest as provided in **Section 26.6**. Any late payment charges assessed on Disputed Amounts shall be paid or credited, as the case may be, as provided in **Section 27.2.2**.

26.5 Adjustments.

26.5.1 A Party shall promptly reimburse or credit the other Party for any charges that should not have been billed to the other Party as provided in this Agreement. Such reimbursements shall be set forth in the appropriate section of the invoice.

26.5.2 A Party shall bill the other Party for any charges that should have been billed to the other Party as provided in this Agreement, but have not been billed to the other Party (**"Underbilled Charges"**); provided, however, that, except as provided in **Article XXVII**, the Billing Party shall not bill for Underbilled Charges which were incurred more than one (1) year prior to the date that the Billing Party transmits a bill for any Underbilled Charges. Notwithstanding the foregoing, Requesting Carrier shall not be liable for any Underbilled Charges for which Customer Usage Data was not furnished by Ameritech to Requesting Carrier within ten (10) months of the date such usage was incurred.

EXHIBIT
C-11
admitted

COVAD – 11

Qwest
1801 California Street, 10th Floor
Denver, Colorado 80202
Phone 303 383-6649
Facsimile 303 896-1107

Craig J. Brown
Corporate Counsel

January 13, 2005

VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Qwest's Petition for Forbearance Under 47 U.S.C. § 160(c), WC Docket No. 03-260

Dear Ms. Dortch:

Qwest Communications International Inc. ("Qwest") hereby provides notice that it is withdrawing, without prejudice, its forbearance petition in the above-captioned proceeding with respect to those elements not included in the Federal Communications Commission's October 27, 2004 *Memorandum Opinion and Order* (FCC 04-254), 19 FCC Rcd 21496, granting Qwest's forbearance petition as to broadband elements.

If you have any questions, please do not hesitate to contact me.

Sincerely,

/s/ Craig J. Brown

Jim Lamoureux
Senior Counsel

SBC Telecommunications Inc.
1401 I Street NW, Suite 400
Washington, D.C. 20005
Phone 202 326-8895
Fax 202 408-8745

January 11, 2005

VIA ELECTRONIC SUBMISSION

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c), Docket No. 03-235

Dear Ms. Dortch:

SBC Communications Inc. hereby provides notice that it is withdrawing, without prejudice, its forbearance petition in the above captioned proceeding with respect to those elements not included in the Commission's October 27, 2004, *Memorandum Opinion and Order* (FCC 04-254) granting SBC's forbearance petition as to broadband elements.

If you have any questions, please do not hesitate to contact me at (202) 326-8895.

Sincerely,

/s/ Jim Lamoureux
Senior Counsel
SBC Telecommunications, Inc.

EXHIBIT

C-13

admitted

COVAD – 13

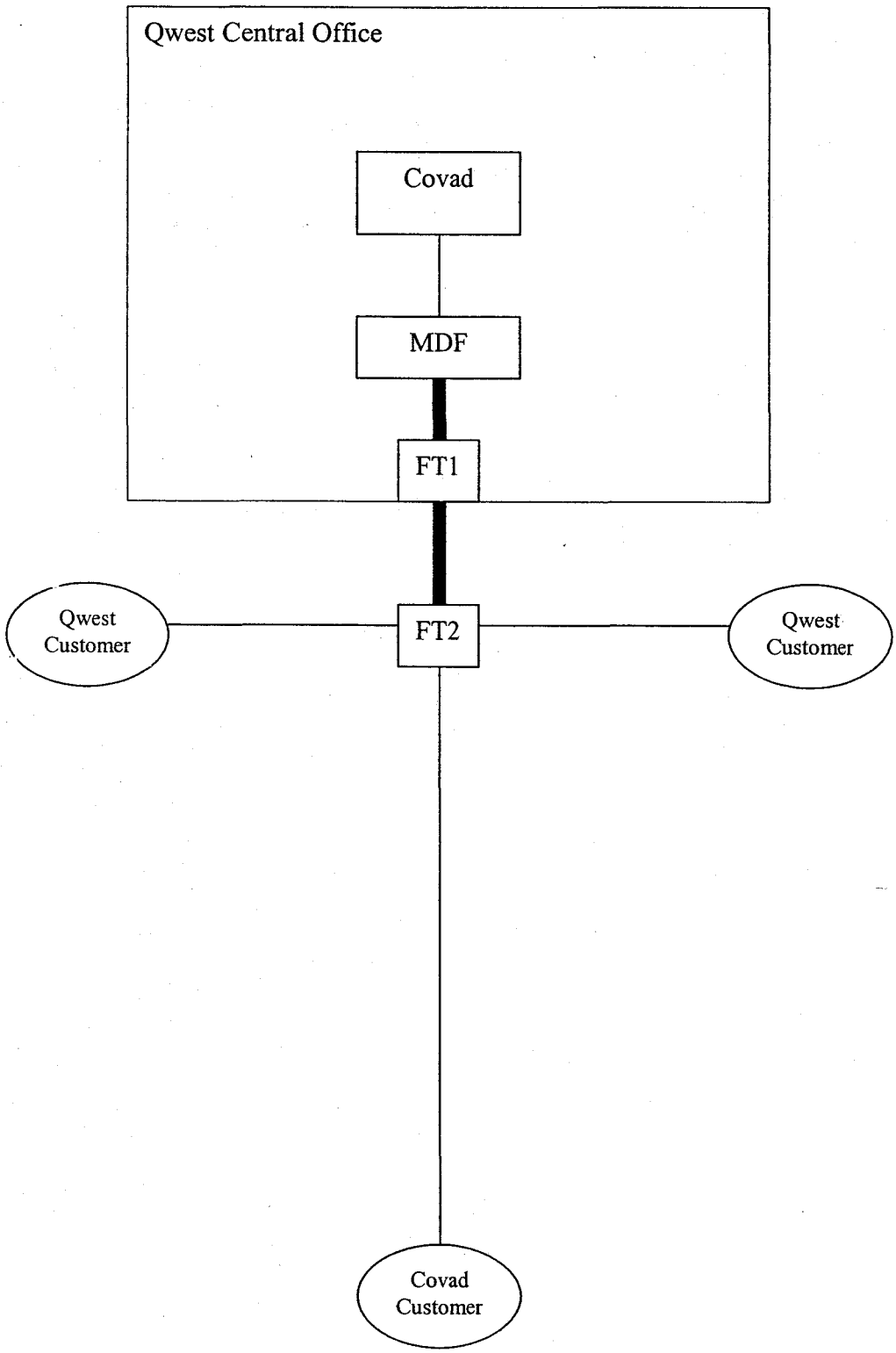
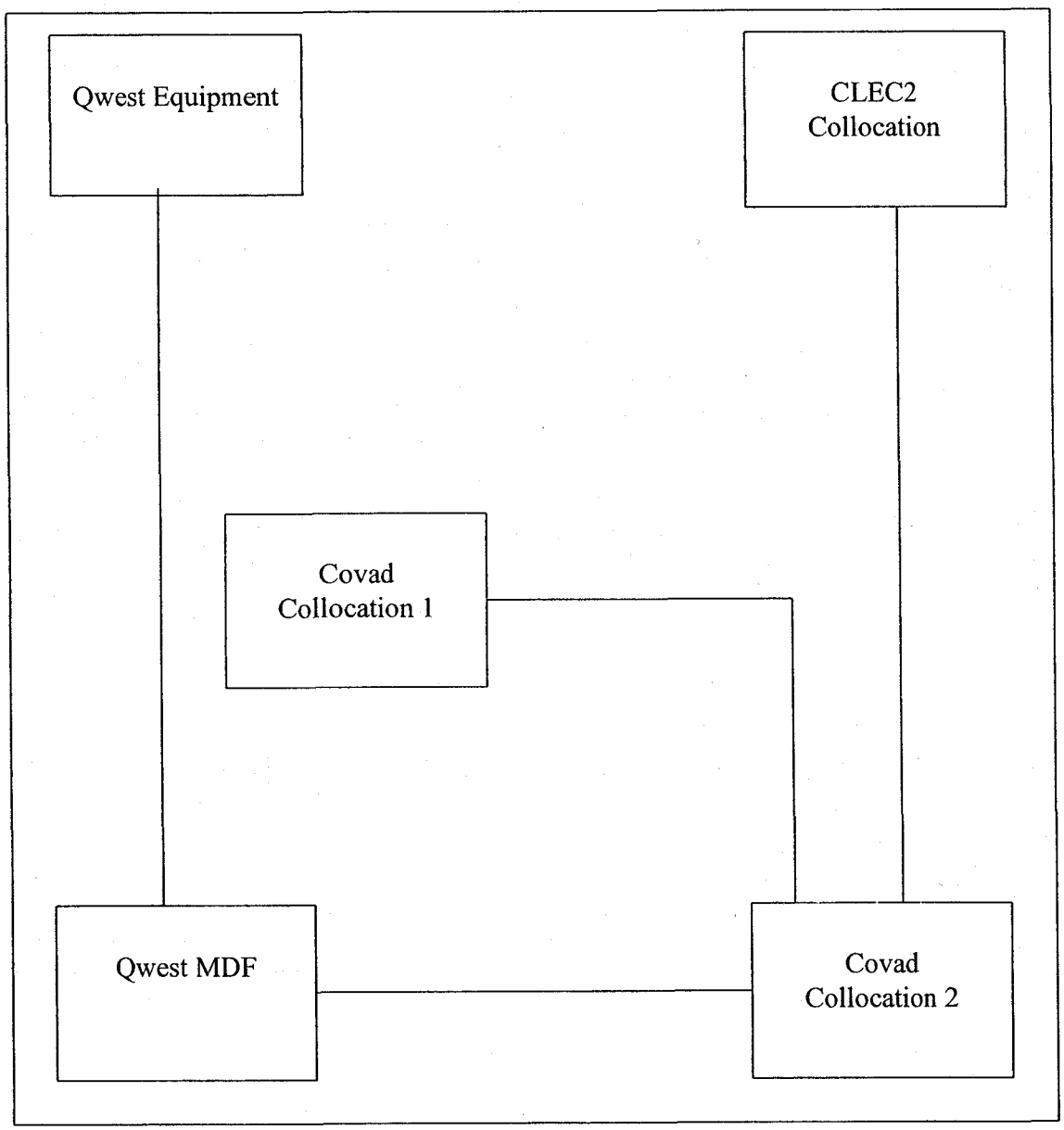

Qwest Central Office
Covad
MDF
FT1
Qwest Customer
FT2
Qwest Customer
Covad Customer

EXHIBIT
C-15
admitted

COVAD – 15

Qwest Central Office



EXHIBIT

C-16

admitted

COVAD – 16

COVAD – 16

ANSI T1.102-1993

American National Standard

for Telecommunications – Digital Hierarchy – Electrical Interfaces

ANSI T1.102-1993

ANSI American National Standards Institute
11 West 42nd Street
New York, New York
10036

ANSI®
T1.102-1993
Revision of
ANSI T1.102-1987

American National Standard
for Telecommunications –

Digital Hierarchy – Electrical Interfaces

Secretariat
Alliance for Telecommunications Industry Solutions

Approved December 8, 1993
American National Standards Institute, Inc.

Abstract

This revised standard describes the electrical interfaces for the DS1, DS1C, DS2, and DS3 levels of the North American digital telecommunications hierarchy. Compliance with this standard is necessary to achieve satisfactory interworking of the telecommunications network. This revision of the standard includes requirements on essential electrical characteristics measured at the interface, and specifies four additional signals; DS1A, DS4NA, STS-1, and STS-3.

The electrical interface for the DS1A (2048) signal has been included to aid in interworking between networks using the North American hierarchy and those using the 2048 kbits/s hierarchy. Frame structure specifications that were previously included are now found in related standards. This standard defines the interface signal and is not intended to be an equipment specification. Accordingly, equipment and cable requirements that were previously listed in the body of the standard have been moved to informative annexes.

American National Standard

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

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Foreword (This foreword is not part of American National Standard T1.102-1993.)

This standard has been revised and reissued to update sections (now clauses) of the original standard that were incomplete and to add information on four new signals; DS4NA, STS-1, STS-3, and DS1A. Other changes include removing information concerning the signal framing formats which are now found in other standards.

This standard provides requirements (1) for the defined levels of the digital hierarchy so that North American telecommunications networks may be interconnected, and (2) for the DS1A (2048 kbits/s) signal to facilitate interworking with networks utilizing the 2048 hierarchy.

This standard has six annexes. Annex A on the use of an STS-1 eye diagram is normative and is considered part of this standard. The others are informative and are not considered part of this standard

Suggestions for improvement of this standard will be welcome. They should be sent to the Alliance for Telecommunications Solutions, 1200 G Street, NW, Suite 500, Washington, DC 20005.

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee on Telecommunications, T1. Committee approval of the standard does not necessarily imply that all members voted for its approval. At the time it approved this standard, the T1 Committee had the following members:

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Working Group T1X1.4 on Metallic Hierarchical Interfaces, which developed this standard, had the following participants:

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Stephen Winter
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American National Standard
for Telecommunications -

Digital Hierarchy – Electrical Interfaces

1 Scope

1.1 General

The North American digital network is made up of sources of digital signals, including channel banks, digital switches, and multiplex equipment, interconnected by transmission facilities. These operate at several different bit rates. At any one level in the digital hierarchy there may be several signal sources with unique bit stream formats, but these need to have certain common characteristics to permit interconnection with transmission facilities at that level and with multiplex equipment connecting to a higher level.

The designation DS*N* or STS-*N* refers to those common features of the digital signal at the *N*-th level in the hierarchy. The levels in the North American digital network included in this standard are: DS1 (1.544 Mbit/s), DS1C (3.152 Mbit/s), DS2 (6.312 Mbit/s), DS3 (44.736 Mbit/s), STS-1 (51.840 Mbit/s), DS4NA (139.264 Mbit/s), and STS-3 (155.520 Mbit/s). This standard also includes the DS1A (2.048 Mbit/s) level of the 2048 kbits/s hierarchy which is sometimes used for interconnection with networks using the North American hierarchy.

1.2 Cross-connects

Any digital equipment, e.g., a multiplex or transmission facility, may be terminated on both ends at equipment capable of supporting a standard level interface. This (cross-connect) equipment provides a convenient central facility for circuit rearrangements, patching, and testing purposes. The implementation of the interface is not constrained to follow a particular technological approach but as an aid in transmission loss budgeting, annex B describes details of hard-wired, manual cross-connect equipment widely used in the North American network for providing the cross-connect and interface functions.

1.3 Interface specification

A DS*N* or STS-*N* level interconnection specification describes the electrical and physical characteristics for signals appearing at the appropriate level digital interface. It does not explicitly specify parameters either for transmitting or receiving equipment or for the cabling that connects such equipment to the interface[1]. Annex C describes the cabling characteristics widely in use in the North American network.

Equipment characteristics are described here only to the extent necessary to assure proper operation of transmission facilities and higher order multiplex equipment. End-to-end compatibility of two digital terminals is not assured by adherence to these interconnection specifications alone.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are

[1] It is the responsibility of the manufacturer to specify the conditions under which their equipment meets the specifications in this standard.

subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ANSI T1.101-1987, *Telecommunication – Synchronization interface standards for digital networks*

ANSI T1.105-1991, *Telecommunications – Digital hierarchy – Optical interface rates and formats specifications*

ANSI T1.107-1988, *Telecommunications – Digital hierarchy – Formats specifications*

IEC 469-2-1987, *Pulse technique and apparatus, Part 2 – Pulse measurement and analysis, general consideration*[2)]

3 Definitions

3.1 alternate mark inversion (AMI): A line code that employs a ternary signal to convey binary digits, in which successive binary ones are represented by signal elements that are normally of alternating positive and negative polarity and are of equal amplitude, and in which binary zeros are represented by signal elements that have zero amplitude. North American implementations use signal elements representing binary ones that are non-zero for only half the unit interval (50% duty cycle). The terms *bipolar*, or *pseudoternary*, are also used to describe these implementations.

3.2 bipolar with three zero substitution (B3ZS): An AMI line code with the substitution of a unique code to replace occurrences of three consecutive zero signal elements. Each block of three successive zeros is replaced by 00V or B0V, where B represents an inserted non-zero signal element conforming to the AMI rule, and V represents a non-zero signal element that is a bipolar violation. The choice of 00V or B0V is made so that the polarity of successive V elements alternates to avoid introducing a DC component to the signal. An equivalent specification is that the number of B pulses between consecutive V pulses is odd. The CCITT (now ITU-TS) also uses the designation HDB2 to describe this code.

3.3 bipolar with six zero substitution (B6ZS): An AMI line code with the substitution of a unique code to replace occurrences of six consecutive zero signal elements. Each block of six successive zeros is replaced by 0VB0VB, where B represents an inserted non-zero signal element conforming to the AMI rule, and V represents a non-zero signal element that is a bipolar violation.

3.4 bipolar with eight zero substitution (B8ZS): An AMI line code with the substitution of a unique code to replace occurrences of eight consecutive zero signal elements. Each block of eight successive zeros is replaced by 000VB0VB, where B represents an inserted non-zero signal element conforming to the AMI rule, and V represents an inserted non-zero signal element that is a bipolar violation.

3.5 bipolar violation (BPV): A non-zero signal element in an AMI (bipolar) signal that has the same polarity as the previous non-zero signal element.

3.6 coded mark inversion (CMI): A two-level, non-return-to-zero code in which each binary zero is coded such that both amplitude levels appear during the unit interval corresponding to the binary zero. Level A1 is transmitted for the first half of the unit interval followed by level A2 for the second half. A binary one is coded such that only one of the two levels appears during the unit interval corresponding to the binary one. The choice of level is made to insure that the amplitude levels alternate for successive binary ones. For electrical implementations of this code, levels A1 and A2 are of equal magnitude and opposite polarity, with A2 being positive.

3.7 high density bipolar of order 3 (HDB3): An AMI line code with the substitution of a unique code to replace occurrences of four consecutive zero signal elements. Each block of four successive zeros is replaced by 000V or B00V, where B represents an inserted non-zero signal element conforming to the AMI rule, and V represents a non-zero signal element that is a bipolar violation. The choice of 000V or B00V is made so that the polarity of successive V elements alternates to avoid introducing a DC component to the signal. An equivalent specification is that the number of B pulses between consecutive V pulses is odd.

3.8 isolated pulse: A pulse that a) is not affected by intersymbol interference from other pulses in the signal, and b) is not corrupted by noise.

---

2) This standard replaces the now recinded ANSI/IEEE Std 181-1977.

3.9 jitter: The short term variations of the significant instants (e.g., zero level crossings) of a digital signal from their ideal positions in time. Here "short term" implies phase variations of frequency greater than or equal to 10 Hz. Jitter may lead to crosstalk, or distortion, or both, of the original analog signal, and is a potential source of bit errors at the ports of digital switches.

3.10 synchronous: A characteristic of signals such that the time intervals between the beginnings of consecutive signal elements occur at precisely the same average rate.

3.11 unit interval (UI): The nominal difference in time between the beginnings of consecutive signal elements of a line code.

4 Abbreviations

AIS	alarm indication signal
ANSI	American National Standards Institute
AWG	American wire gauge
dB	decibel
dBm	decibel referred to one milliwatt
DC	direct current
DS	digital signal
DS*N*	digital signal at level *N*
Hz	hertz
kHz	kilohertz
Mbit	megabit
MHz	megahertz
ppm	parts per million
STS	synchronous transmission signal
STS-*N*	synchronous transmission signal at level *N*
UI	unit interval

5 Pulse specification

5.1 Pulse masks

The interface specifications for many of the hierarchical rates include a graphical description of a pulse mask to judge the quality of signal pulses. No allowance for noise is included in any of the pulse masks in this standard.

For alternate mark inversion (AMI) coding, a pulse mask describing an isolated pulse appearing at the interface is used. In most cases, an ideal isolated pulse can only be approximated due to line coding constraints. For those hierarchical rates that include an isolated pulse mask specification, a bit sequence to approximate an isolated pulse is also defined. In this standard, isolated pulse masks are displayed in terms of a positive-going pulse. Negative-going pulses shall be inverted prior to comparison with the mask.

Pulse masks are shown in this standard in normalized form, with the nominal pulse amplitude shown as 1.0. In judging conformance of an isolated pulse to the mask, it is only permissible to a) position the mask horizontally as needed to encompass the pulse, and b) uniformly scale the amplitude of the isolated pulse to fit the mask. The baseline of the signal shall coincide with the zero point of the baseline of the mask. (The determination of signal baseline is described in IEC 469-2.) Judging the conformance of negative-going pulses shall be performed after determining the conformance of positive-going pulses in order to maintain the signal baseline reference. When viewing inverted negative-going pulses for DS1, DS1C, and DS1A, only the horizontal positioning of the mask to encompass the pulse is permitted. Note that pulse streams with any significant dc component will not meet the requirements of this clause. Additional information on the interpretation of pulse masks is incorporated in the various DS*N* or STS-*N* specifications.

5.2 Eye diagrams

For signals not amenable to the use of pulse masks, another means of specifying the quality of pulses at the interface is an eye diagram, which is formed by superimposing the waveforms of all possible pulse sequences, including the effects of intersymbol interference. Eye diagrams in this standard do not incorporate any effects of either random noise or jitter. The diagrams are presented in normalized form with the peak pulse amplitudes normalized to 1.0 on the vertical scale and the time scale shown in terms of the unit interval. In

judging the shape of an eye diagram, it is permissible to a) position the mask horizontally as needed to encompass the eye diagram, and b) uniformly scale the amplitude of the mask as needed to encompass the eye diagram. The baseline of the mask shall coincide with the signal baseline. The determination of the signal baseline is described in IEC 469-2. Additional information on the interpretation of eye diagrams is incorporated in the various DS*N* or STS-*N* specifications.

6 North American hierarchy level specifications

6.1 DS1 level specification

6.1.1 General

The DS1 signal has a nominal rate of 1.544 Mbit/s.

6.1.2 DS1 interface

The DS1 interface specification is defined in table 1. All signals appearing at the DS1 interface shall satisfy each requirement listed.

An isolated pulse (see pulse shape in table 1) at the DS1 interface shall fit within the mask shown in figure 1. The corner points for this mask are shown below the figure. In this figure, the *y* axis shows normalized pulse amplitude. The *x* axis is time measured in unit intervals. For DS1, the unit interval is 648 nanoseconds.

Some DS1 equipment embedded in the network may have been designed using a different pulse mask than that in this standard. Annex D describes the earlier specification to provide information to designers of receiving equipment on the possible range of DS1 signals in the network.

To accommodate signals generated by equipment predating this standard, DS1 receivers should be capable of operation with a signal having a transmission rate accuracy of ±200 bits/s (±130 ppm)[3].

6.2 DS1C level specification

6.2.1 General

The DS1C signal has a nominal rate of 3.152 Mbit/s.

6.2.2 DS1C interface

The DS1C interface specification is defined in table 2. All signals appearing at a DS1C interface shall satisfy each requirement listed.

DS1C signals that are to be multiplexed shall have the frame structure as described in ANSI T1.107.

An isolated pulse (see pulse shape in table 2) at the DS1C interface shall fit within the mask shown in figure 2. The corner points for this mask are listed below the figure. In this figure, the *y* axis shows normalized pulse amplitude. The *x* axis is time measured in unit intervals. For DS1C, the unit interval is 317 nanoseconds.

6.3 DS2 level specification

6.3.1 General

The DS2 signal has a nominal rate of 6.312 Mbit/s.

6.3.2 DS2 interface

The DS2 interface specification is defined in table 3. All signals appearing at the DS2 interface shall satisfy each requirement listed.

An isolated pulse (see pulse shape in table 3) at the DS2 interface shall fit within the mask shown in figure 3. Equations defining the various line segments making up the mask are listed below the figure. In this figure, the *y* axis shows normalized pulse amplitude. The *x* axis is time measured in unit intervals. For DS2, the unit interval is 158 nanoseconds.

6.4 DS3 level specification

6.4.1 General

The DS3 signal has a nominal rate of 44.736 Mbit/s.

6.4.2 DS3 interface

The DS3 interface specification is defined in table 4. All signals appearing at the DS3 interface shall satisfy each requirement listed.

An isolated pulse (see pulse shape in table 4) at the DS3 interface shall fit within the mask shown in figure 4. Equations defining the various line segments making up the mask are listed below the figure. In this figure, the *y* axis shows normalized pulse amplitude. The *x* axis is time measured in unit intervals. For DS3, the unit interval is 22.4 nanoseconds.

[3] See annex D for pulse characteristics of older equipment.

To assure proper operation of transmission facilities and higher order multiplex equipment, all DS3 sources shall use the frame structure described in ANSI T1.107.

6.5 STS-1 level specification

6.5.1 General

The STS-1 signal has a nominal rate of 51.840 Mbit/s.

6.5.2 STS-1 interface

The STS-1 interface specification is defined in table 5. All signals appearing at the STS-1 interface shall satisfy each requirement listed.

To assure proper operation of transmission facilities and higher order multiplex equipment, all STS-1 sources shall use the frame structure and scrambler specification described in ANSI T1.105.

A pulse mask applicable to parts of an STS-1 signal (see clause 5) is shown in figure 5. The equations defining the pulse mask are shown in the figure. In this figure, the *y* axis shows normalized amplitude, and the *x* axis denotes time measured in unit intervals. For STS-1, the unit interval is 19.3 nanoseconds.

An eye diagram applicable to the entire STS-1 signal is contained in annex A.

6.6 DS4NA level specification

6.6.1 General

The DS4NA signal has a nominal rate of 139.264 Mbit/s.

6.6.2 DS4NA interface

The DS4NA interface specification is defined in table 6. All signals appearing at the DS4NA interface shall satisfy each requirement listed.

The signal at the interface shall fit within the eye diagram mask of figure 7. A second eye diagram mask, figure 8, describes the maximum signal at the equipment output; it is directly derived from the 139264 kbits/s pulse masks in ITU-T (formerly CCITT) Recommendation G.703. Both masks are based on a signal with a random mix of binary ones and zeros. Corner points of the exclusionary regions are listed below the figures. In these figures, the *y* axis shows normalized amplitude and the *x* axis denotes time measured in unit intervals. For DS4NA, the unit interval is 7.18 nanoseconds.

6.7 STS-3 level specification

6.7.1 General

The STS-3 signal has a nominal rate of 155.520 Mbit/s.

6.7.2 STS-3 interface

The STS-3 interface specification is defined in table 7. All signals appearing at the STS-3 interface shall satisfy each requirement listed.

The signal at the interface shall fit within the eye diagram mask of figure 9. A second eye diagram mask, figure 10, describes the maximum signal at the equipment output; it is derived from the 139264 kbits/s pulse masks in ITU-T (formerly CCITT) Recommendation G.703. Both masks are based on a signal with a random mix of binary ones and zeros. Randomization is assured by the scrambler specification. Corner points of the exclusionary regions are listed below the figures. In these figures, the *y* axis shows normalized amplitude, and the *x* axis denotes time measured in unit intervals. For STS-3, the unit interval is 6.43 nanoseconds.

To assure proper operation of the transmission facilities, all STS-3 sources shall use the frame structure and scrambler specification described in ANSI T1.105.

7 Hierarchy interworking level specifications

7.1 DS1A level specification

7.1.1 General

The DS1A signal has a nominal rate of 2.048 Mbit/s.

7.1.2 DS1A interface

The DS1A interface specification is defined in table 8. All signals appearing at the DS1A interface shall satisfy each requirement listed.

An isolated pulse (see pulse shape in table 8) at the DS1A interface shall fit within the mask shown in figure 11. The corner points for this mask are listed below the figure. In this figure, the *y* axis shows normalized pulse amplitude. The *x* axis is time measured in unit intervals. For DS1A, the unit interval is 488 nanoseconds.

The ITU-TS (formerly CCITT) has specified 2.048 Mbit/s signals in the ITU-T G.703 Recommendation for use in the 2048 kbits/s hierarchy. Annex E describes the relationship between the ITU-T G.703 requirements and the DS1A interface specification.

Table 1 – DS1 Interface specification

Parameter	Specification
Nominal line rate	1.544 Mbit/s
Line rate accuracy	In a self timed, free running mode, the line rate accuracy shall be ±50 bits/s (±32 ppm) or better. During synchronized operation, the line rate accuracy shall be as specified in T1.101 for the appropriate stratum level.
Line code	Either (1) AMI with no more than 15 consecutive zeros, and at least *N* ones in each and every time window of 8(*N*+1) digit time slots (where *N* can range from 1 to 23), or (2) B8ZS[1].
Frame structure	No frame structure is required for DS1 transmission or higher level multiplexing to higher level DS*N* signals or to SONET payloads[2].
Medium	One balanced twisted pair shall be used for each direction of transmission.
Test load impedance	A resistive test load of 100 ohms ±5% shall be used at the interface for the evaluation of pulse shape and the electrical parameters specified below.
Pulse amplitude	The amplitude[3] of an isolated pulse shall be between 2.4 v and 3.6 v.
Pulse shape	The shape of every pulse that approximates an isolated pulse (is preceded by four zeros and followed by one or more zeros) shall conform to the mask in figure 1; see 5.1 for allowable procedures to be followed in checking conformance.
Power level	For an all-ones signal, the power in a 3 kHz ±1 kHz band centered at 772 kHz shall be between 12.6 dBm and 17.9 dBm. The power in a 3 kHz ±1 kHz band centered at 1544 kHz shall be at least 29 dB below that at 772 kHz.
Pulse imbalance	In any window of seventeen consecutive bits, the maximum variation in pulse amplitudes shall be less than 200 mV, and the maximum variation in pulse widths (half amplitude) shall be less than 20 ns.
DC power	There shall be no DC power applied to the interface.
Jitter	The maximum jitter at the DS1 interface shall not exceed the values shown in table 9.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

NOTES

1) B8ZS is one method of providing bit sequence independence. Bit sequence independence in turn allows unconstrained clear channel capability. ZBTSI is another method of providing clear channel transmission. See ANSI T1.107.

2) Standardized DS1 frame structures are defined in ANSI T1.107.

3) While both voltage and power requirements are given to assist in qualification of signals at the interface, the values are not equivalent. Voltage specifications are given for isolated pulses, while power levels are specified for an all-ones signal.

Table 2 – DS1C interface specification

Parameter	Specification
Nominal line rate	3.152 Mbit/s
Line rate accuracy	In a self timed, free running mode, the line rate accuracy shall be ±95 bits/s (±30 ppm) or better. During synchronized operation, the line rate accuracy shall be as specified in T1.101 for the appropriate stratum level.
Line code	Either (1) AMI with at least 12.5 percent average ones density over any 150 consecutive bits, or (2) B8ZS.
Frame structure	No frame structure is required for DS1C transmission. DS1C signals to be multiplexed to higher level DS*N* signals shall have the frame structure as described in ANSI T1.107[1] No frame structure is required for multiplexing into SONET payloads.
Medium	One balanced twisted pair shall be used for each direction of transmission.
Test load impedance	A resistive test load of 100 ohms ±5% shall be used at the interface for the evaluation of pulse shape and the electrical parameters specified below.
Pulse amplitude	For a signal consisting of two DS1 all-ones signals multiplexed according to T1.107, the pulse amplitude shall be between 2.3 v and 4.2 v.
Pulse shape	The shape of every pulse that approximates an isolated pulse (is preceded by four zeros and followed by one or more zeros) shall conform to the mask in figure 2; see 5.1 for procedures to be followed in checking conformance.
Power level	A wideband power measurement of a signal consisting of two multiplexed DS1 all-ones signals multiplexed according to T1.107, using a power level sensor with a working range of 10 MHz shall be between 14.5 dBm and 18.5 dBm. A low-pass filter having a flat passband and a cutoff frequency of 10 MHz shall be used. The rolloff characteristics of this filter are not important.
Pulse imbalance	(1) The ratio of amplitudes of positive and negative isolated pulses shall be between 0.95 and 1.05, and (2) positive and negative isolated pulses shall both conform to the mask of figure 2.
DC power	There shall be no DC power applied to the interface.
Jitter	The maximum jitter at the DS1C interface shall not exceed the values shown in table 9.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

NOTES

1) In ANSI T1.107, the specified frame structure is known as Mode 2.

Table 3 – DS2 interface specification

Parameter	Specification
Nominal line rate	6.312 Mbit/s
Line rate accuracy	In a self timed, free running mode, the line rate accuracy shall be ±208 bits/s (±33 ppm) or better. During synchronized operation, the line rate accuracy shall be as specified in T1.101 for the appropriate stratum level.
Line code	B6ZS
Frame structure	A standard frame structure is not required for DS2 transmission or multiplexing to higher level DS*N* signals or to SONET payloads[1)]
Medium	One balanced twisted pair shall be used for each direction of transmission.
Test load impedance	A resistive test load of 110 ohms ±5% shall be used at the interface for the evaluation of pulse shape and the electrical parameters specified below.
Pulse amplitude	For all-ones data, the pulse amplitude shall be between 0.55 v and 1.3 v peak.
Pulse shape	The shape of every pulse that approximates an isolated pulse (is preceded by four zeros and followed by one or more zeros) shall conform to the mask in figure 3; see 5.1 for allowable procedures to be followed in checking conformance. This mask includes an allowance of ±3% of the peak pulse amplitude at any point on the mask relative to the pulse mask in the earlier version of this standard. Equations defining the various line segments making up the mask are listed below the figure.
Power level	For an all-ones signal, the power in a 3 kHz ±1 kHz band centered at 3.156 MHz shall be between 0.2 dBm and 7.3 dBm. The power in a 3 kHz ±1 kHz band centered at 6.312 MHz shall be at least 20 dB below that at 3.156 MHz.
Pulse imbalance	(1) The ratio of amplitudes of positive and negative isolated pulses shall be between 0.90 and 1.10, and (2) positive and negative isolated pulses shall both conform to the mask of figure 3.
DC power	There shall be no DC power applied to the interface.
Jitter	The maximum jitter at the DS2 interface shall not exceed the values shown in table 9.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

NOTES

1) A frame structure is defined in ANSI T1.107.

Table 4 – DS3 interface specification

Parameter	Specification
Nominal line rate	44.736 Mbit/s
Line rate accuracy	In a self timed, free running mode, the line rate accuracy shall be ±895 bits/s (±20 ppm) or better. During synchronized operation, the line rate accuracy shall be as specified in T1.101 for the appropriate stratum level.
Line code	B3ZS
Frame structure	The signal shall have the frame structure defined in ANSI T1.107 to ensure transmission through all types of DS3 transport equipment. The frame structure is not required for multiplexing to higher level DS*N* signals or to SONET payloads
Medium	One unbalanced coaxial line shall be used for each direction of transmission.
Test load impedance	A resistive test load of 75 ohms ±5% shall be used at the interface for the evaluation of pulse shape and the electrical parameters specified below.
Pulse amplitude	The pulse amplitude[1)] of an isolated pulse shall be between 0.36 v and 0.85 v peak.
Pulse shape	The shape of every pulse that approximates an isolated pulse (is preceded by two zeros and followed by one or more zeros) shall conform to the mask in figure 4; see 5.1 for allowable procedures to be followed in checking conformance. This mask includes an allowance of ±3% of the peak pulse amplitude at any point on the mask relative to the pulse mask in the earlier version of this standard. Equations defining the various line segments making up the mask are listed below the figure.
Power level	A wideband power measurement of an AIS signal (as defined in T1.107) using a power level sensor with a working frequency range of 200 MHz shall be between -4.7 dBm and +3.6 dBm, including the effects of a range of connecting cable lengths between 225 feet and 450 feet. A low-pass filter having a flat passband and cutoff frequency of 200 MHz shall be used. The rolloff characteristics of this filter are not important. OR An alternate power level specification of the power of an all-ones signal[2)] is useful for some equipment qualifications. It requires that the power in a 3 kHz ±1 kHz band centered at 22.368 MHz be between -1.8 dBm and +5.7 dBm. It further requires that the power in a 3 kHz ±1 kHz band centered at 44.736 MHz be at least 20 dB below that at 22.368 MHz.
Pulse imbalance	(1) The ratio of amplitudes of positive and negative isolated pulses shall be between 0.90 and 1.10, and (2) positive and negative isolated pulses shall both conform to the mask of figure 4.
DC power	There shall be no DC power applied to the interface.

(continued)

Table 4 *(concluded)*

Parameter	Specification
Jitter	The maximum jitter at the DS3 interface shall not exceed the values shown in table 9.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

NOTES

1) While both voltage and power requirements are given to assist in qualification of signals at the interface, the values are not equivalent. Voltage specifications are given for isolated pulses, while power levels are specified for an AIS signal, or alternatively an all-ones signal.

2) The all-ones signal is not realizable within the frame structure specified in T1.107, and is not encountered in North American telecommunications networks.

Table 5 – STS-1 interface specification

Parameter	Specification
Nominal line rate	51.840 Mbit/s
Line rate accuracy	During synchronized operation, the line rate accuracy shall be that of the network clock as specified in T1.105 (see also T1.101). In a self timed, free running mode, the line rate accuracy shall be ±1037 bits/s (±20 ppm) or better.
Line code	B3ZS
Frame structure	The signal shall have the frame structure and scrambling defined in ANSI T1.105.
Medium	One unbalanced coaxial line shall be used for each direction of transmission.
Test load impedance	A resistive test load of 75 ohms ±5 percent shall be used at the interface for the evaluation of pulse shape and the electrical parameters specified below.
Power level	A wideband power measurement using a power level sensor with a working frequency range of at least four times the bit rate frequency shall be between -2.7 dBm and +4.7 dBm, including the effects of a range of connecting cable lengths between 225 feet and 450 feet. A low-pass filter with a flat passband and a cutoff frequency of 207.360 MHz shall be used. The rolloff characteristics of this filter are not important.
Pulse shape	The shape of every pulse that approximates an isolated pulse (is preceded by two zeros and followed by one or more zeros) shall conform to the mask in figure 5; see 5.1 for allowable procedures to be followed in checking conformance. Equations defining the various line segments making up the mask are listed below the figure. For applicable procedures utilizing the entire STS-1 signal, see annex A.
DC power	There shall be no DC power applied to the interface.
Jitter	This subject is for further study.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

Table 6 – DS4NA interface specification

Parameter	Specification
Nominal line rate	139.264 Mbit/s
Line rate accuracy	In a self timed, free running mode, the line rate accuracy shall be ±2089 bits/s (±15 ppm) or better. During synchronized operation, the line rate accuracy shall be as specified in T1.101 for the appropriate stratum level.
Line code	CMI. Figure 6 shows an example of a CMI-coded signal.
Frame structure	No frame structure is required for transmission of the DS4NA signal or for multiplexing into SONET payloads[1].
Medium	One unbalanced coaxial line shall be used for each direction of transmission.
Test load impedance	A resistive test load of 75 ohms ±5% shall be used at the interface for the evaluation of pulse shape and the electrical parameters of the signal.
Power level	A wideband power measurement using a power level sensor with a working frequency range of at least twice the bit rate frequency shall be between -2.2 dBm and +6.3 dBm, including the effects of a range of connecting cable lengths between 0 feet and 225 feet. A low-pass filter with a flat passband and a cutoff frequency of 278.528 MHz shall be used. The rolloff characteristics of this filter are not important.
Eye diagram	An eye diagram mask for the signal at the interface is shown in figure 7; see 5.2 for allowable procedures to be followed in checking conformance. A second mask defining the maximum signal at the equipment output is shown in figure 8. These were derived using a reference timing signal at twice the DS4NA rate, or 278.528 MHz. Exclusionary regions are shown as crosshatched areas on the figures. The corner points of these regions are shown below each figure.
DC power	There shall be no DC power applied to the interface.
Jitter	The maximum jitter at the DS4NA interface shall not exceed the values shown in table 9.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

NOTES

1) A frame structure is defined in ANSI T1.107.

Table 7 – STS-3 Interface specification

Parameter	Specification
Nominal line rate	155.520 Mbit/s
Line rate accuracy	During synchronized operation, the line rate accuracy shall be that of the network clock as specified in T1.105 (see also T1.101). In a self timed, free running mode, the line rate accuracy shall be ±3110 bits/s (±20 ppm) or better.
Line code	CMI. Figure 6 shows an example of a CMI-coded signal.
Frame structure	The STS-3 signal shall have the frame structure and scrambling specified in ANSI T1.105.
Medium	One unbalanced coaxial line shall be used for each direction of transmission.
Test load impedance	A resistive test load of 75 ohms ±5% shall be used at the interface for the evaluation of pulse shape and the electrical parameters of the signal.
Power level	A wideband power measurement using a power level sensor with a working frequency range of at least twice the bit rate frequency shall be between -2.5 dBm and +4.3 dBm, including the effects of a range of connecting cable lengths between 0 feet and 225 feet. A low-pass filter with a flat passband and a cutoff frequency of 311.040 MHz shall be used. The rolloff characteristics of this filter are not important.
Eye diagram	An eye diagram mask for the signal at the interface is shown in figure 9; see 5.2 for allowable procedures to be followed in checking conformance. A second mask defining the maximum signal at the equipment output is shown in figure 10. These were derived using a reference timing signal at twice the STS-3 rate, or 311.040 MHz. Exclusionary regions are shown as crosshatched areas on the figures. The corner points of these regions are shown below each figure.
DC power	There shall be no DC power applied to the interface.
Jitter	This subject is for further study.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

Table 8 – DS1A interface specification

Parameter	Specification
Nominal line rate	2.048 Mbit/s
Line rate accuracy	In a self timed, free running mode, the line rate accuracy shall be ±102 bits/s (±50 ppm) or better. During synchronized operation, the line rate accuracy shall be as specified in T1.101 for the appropriate stratum level.
Line code	HDB3.
Frame structure	No frame structure is required for DS1A transmission or higher order multiplexing to higher level DS*N* signals or to SONET payloads[1].
Medium	One balanced twisted pair shall be used for each direction of transmission.
Test load impedance	A resistive test load of 100 ohms ±5% shall be used at the interface for the evaluation of signal pulse shape and the electrical parameters.
Pulse amplitude	The pulse amplitude[2] of an isolated pulse shall be between 2.2 v and 3.3 v.
Pulse shape	The shape of every pulse that approximates an isolated pulse (is preceded by three zeros and followed by one or more zeros) shall conform to the mask in figure 11; see 5.1 for allowable procedures to be followed in checking conformance.
Power level	For an all-ones signal, the power in a 3 kHz ±1 kHz band centered at 1.024 MHz shall be between 13.7 dBm and 17.5 dBm. The power in a 3 kHz ±1 kHz band centered at 2.048 MHz shall be at least 20 dB below that at 1.024 MHz.
Pulse imbalance	(1) The ratio of amplitudes of positive and negative isolated pulses shall be between 0.95 and 1.05, and (2) positive and negative isolated pulses shall both conform to the mask of figure 11.
DC power	There shall be no DC power applied to the interface.
Jitter	The maximum jitter at the DS1A interface shall not exceed the values shown in table 9.
Verification access	Access to the signal at the interface shall be provided for verification of these signal specifications.

NOTES

1) Frame structure details appear in CCITT G.704.

2) While both voltage and power requirements are given to assist in qualification of signals at the interface, the values are not equivalent. Voltage specifications are given for isolated pulses, while power levels are specified for an all-ones signal.

Table 9 – Maximum output jitter at hierarchical interfaces

		Network limit UI (Peak-to-Peak)		Measurement filter bandwidth corresponds to a bandpass filter having lower cut-off frequency F_1 or F_3 and minimum upper cut-off frequency F_4		
Bit rate Mbit/s	**Unit interval** ns	**Band 1** F_1 to F_4	**Band 2** F_3 to F_4	F_1 Hz	F_3 (Note 1) kHz	F_4 kHz
1.544	648.	5.0	0.1	10	8	40
2.048	488.	1.5	0.2	20	18	100
3.152	317.	5.0	0.1	10	1.5	40
6.312	158.	3.0	0.1	10	3	60
44.736	22.4	5.0	0.1	10	30	400
51.840[1)]	19.3	–	–	–	–	–
139.264	7.18	1.5	0.075	200	10	3500
155.520[1)]	6.43	–	–	–	–	–

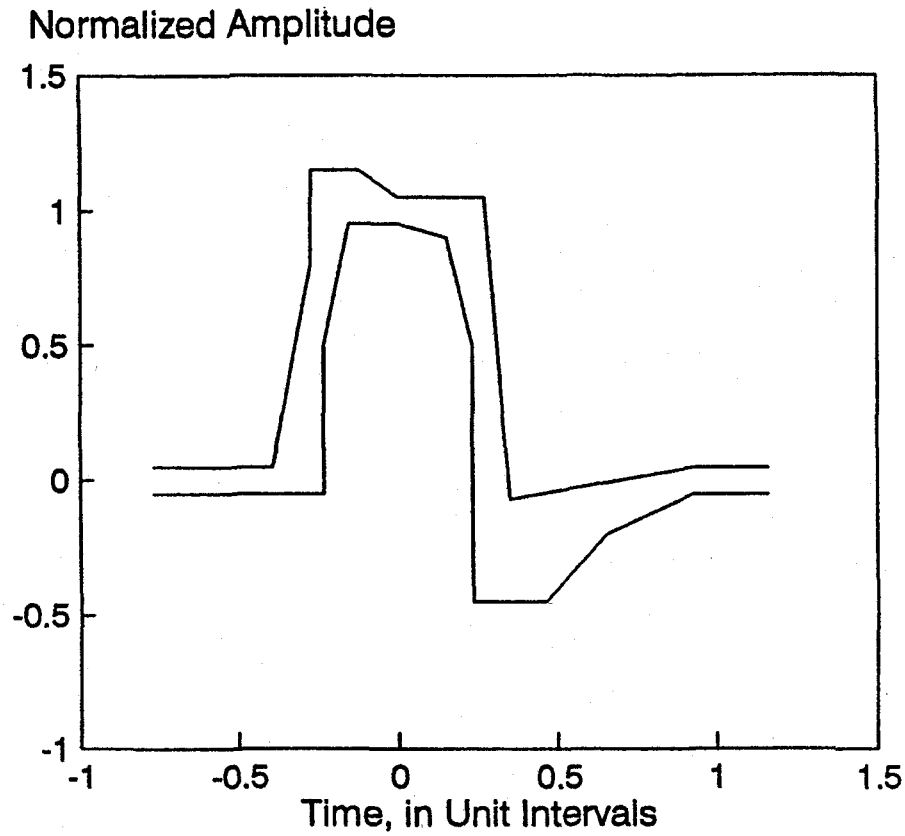
NOTES

1 F_3, the lower cut-off frequency of one of the bandpass filters, represents the jitter half-bandwidth of typical timing extraction circuits. The frequency F_3 is determined from

$$F_3 = f_0 / 2Q$$

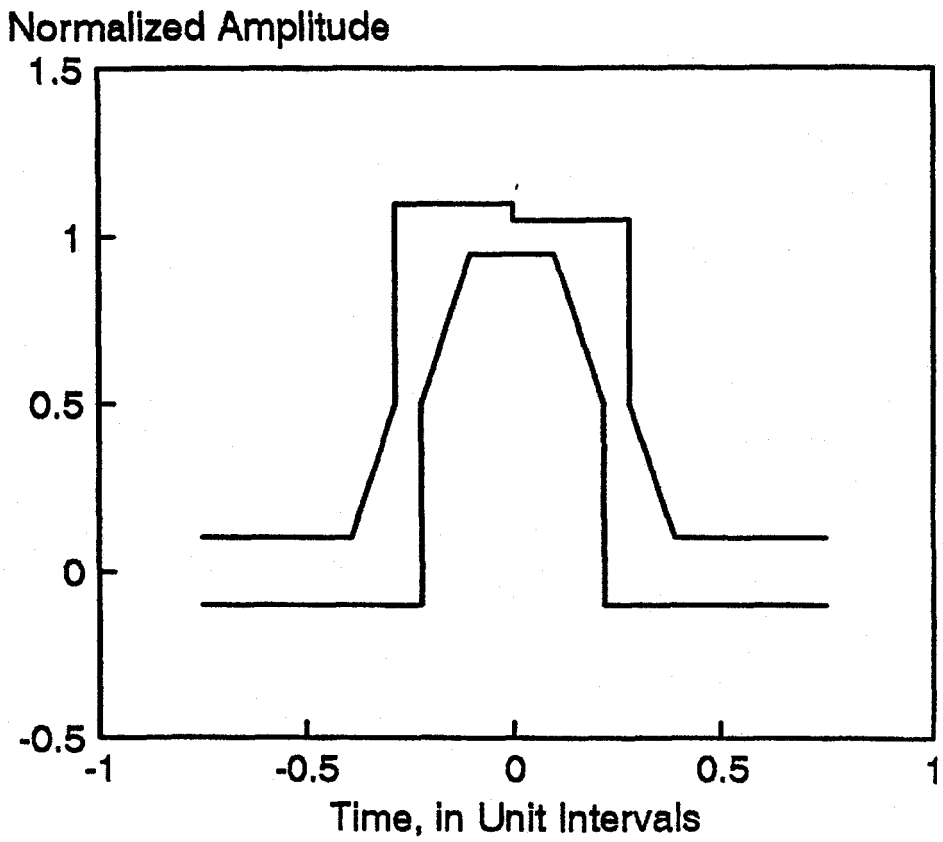
where f_0 and Q represent the digital signal rate and the Q-factor of the timing recovery circuit, respectively.

1) Under study



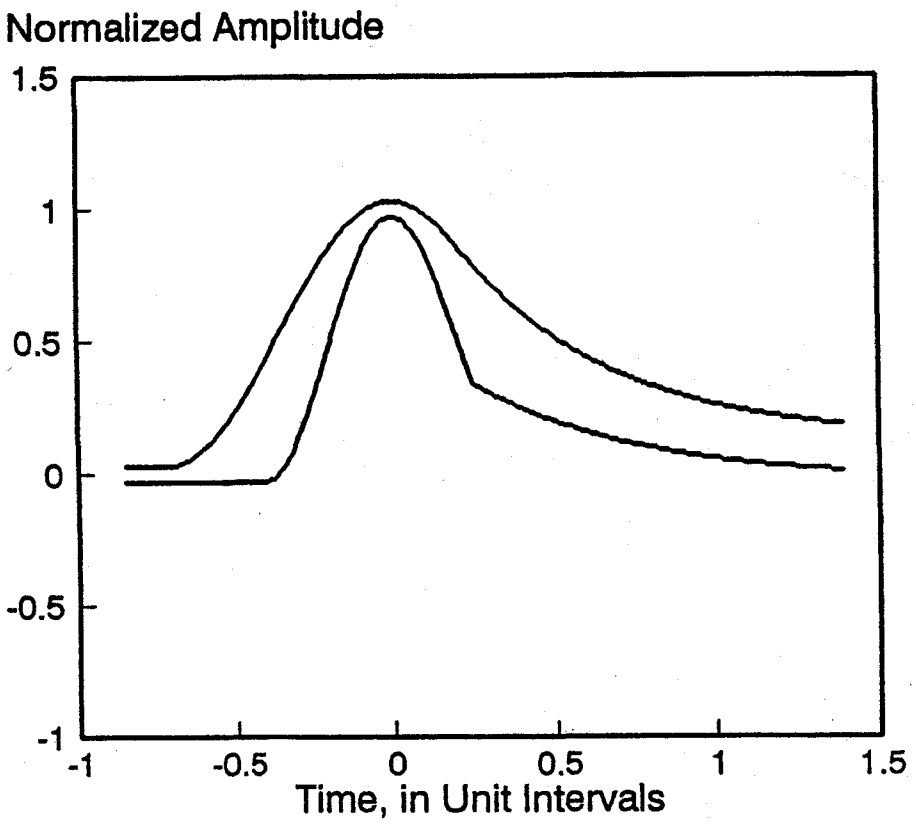
Minimum curve		Maximum curve	
Time	Normalized amplitude	Time	Normalized amplitude
-.77	-.05	-.77	.05
-.23	-.05	-.39	.05
-.23	.5	-.27	.8
-.15	.95	-.27	1.15
0.0	.95	-.12	1.15
.15	.9	0.0	1.05
.23	.5	.27	1.05
.23	-.45	.35	-.07
.46	-.45	.93	.05
.66	-.2	1.16	.05
.93	-.05		
1.16	-.05		

Figure 1 – DS1 Interface isolated pulse mask and corner points



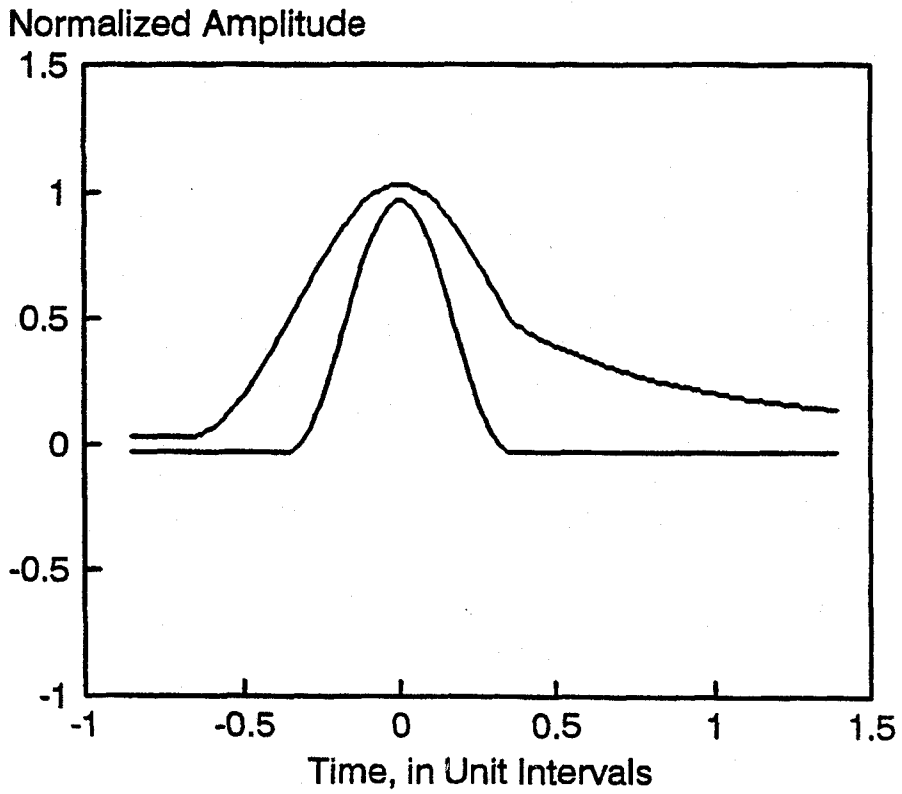
Minimum curve		Maximum curve	
Time	Normalized amplitude	Time	Normalized amplitude
-.75	-.10	-.75	.10
-.22	-.10	-.39	.10
-.22	.5	-.28	.5
-.10	.95	-.28	1.10
.10	.95	0.0	1.10
.22	.5	0.0	1.05
.22	-.10	.28	1.05
.75	-.10	.28	.5
		.39	.10
		.75	.10

Figure 2 – DS1C interface isolated pulse mask and corner points



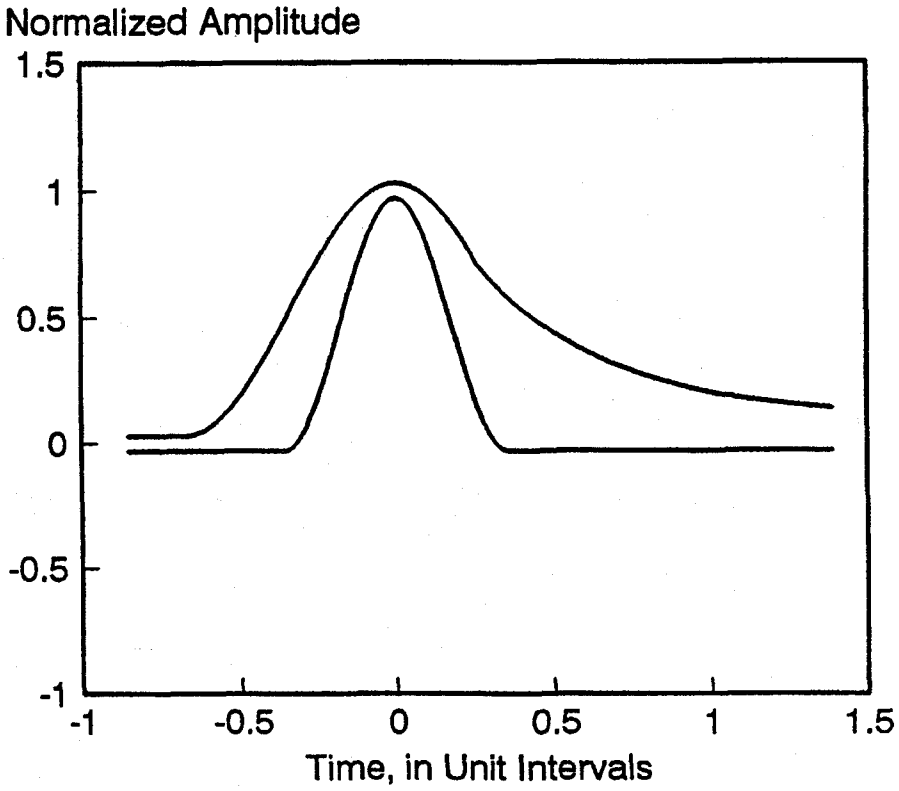
Time axis range unit intervals	Normalized amplitude equation
Upper curve	
$-0.85 \le T \le -0.72$	0.03
$-0.72 \le T \le 0.2$	$0.5\{1+\sin[(\pi/2)(1+T/0.36)]\} + 0.03$
$0.2 \le T \le 1.4$	$0.13+0.72\,e^{-2.13(T-0.2)}$
Lower curve	
$-0.85 \le T \le -0.41$	-0.03
$-0.41 \le T \le 0.24$	$0.5\{1+\sin[(\pi/2)(1+T/0.205)]\} - 0.03$
$0.24 \le T \le 1.4$	$0.331\,e^{-1.9(T-0.3)} - 0.03$

Figure 3 – DS2 Interface isolated pulse mask and equations



Time axis range unit intervals	Normalized amplitude equation
Upper curve	
$-0.85 \le T \le -0.68$	0.03
$-0.68 \le T \le 0.36$	$0.5\{ 1+\sin [(\pi/2)(1+T/0.34)] \} + 0.03$
$0.36 \le T \le 1.4$	$0.08+0.407\, e^{-1.84(T-0.36)}$
Lower curve	
$-0.85 \le T \le -0.36$	-0.03
$-0.36 \le T \le 0.36$	$0.5\{ 1+\sin [(\pi/2)(1+T/0.18)] \} - 0.03$
$0.36 \le T \le 1.4$	- 0.03

Figure 4 – DS3 interface isolated pulse mask and equations



Time axis range unit intervals	Normalized amplitude equation
Upper curve	
$-0.85 \le T \le -0.68$	0.03
$-0.68 \le T \le 0.26$	$0.5\{ 1+\sin [(\pi/2)(1+T/0.34)] \} + 0.03$
$0.26 \le T \le 1.40$	$0.1+0.61\, e^{-2.4(T-0.26)}$
Lower curve	
$-0.85 \le T \le -0.38$	-0.03
$-0.38 \le T \le 0.36$	$0.5\{ 1+\sin [(\pi/2)(1+T/0.18)] \} - 0.03$
$0.36 \le T \le 1.40$	- 0.03

Figure 5 – STS-1 Interface Isolated pulse mask and equations

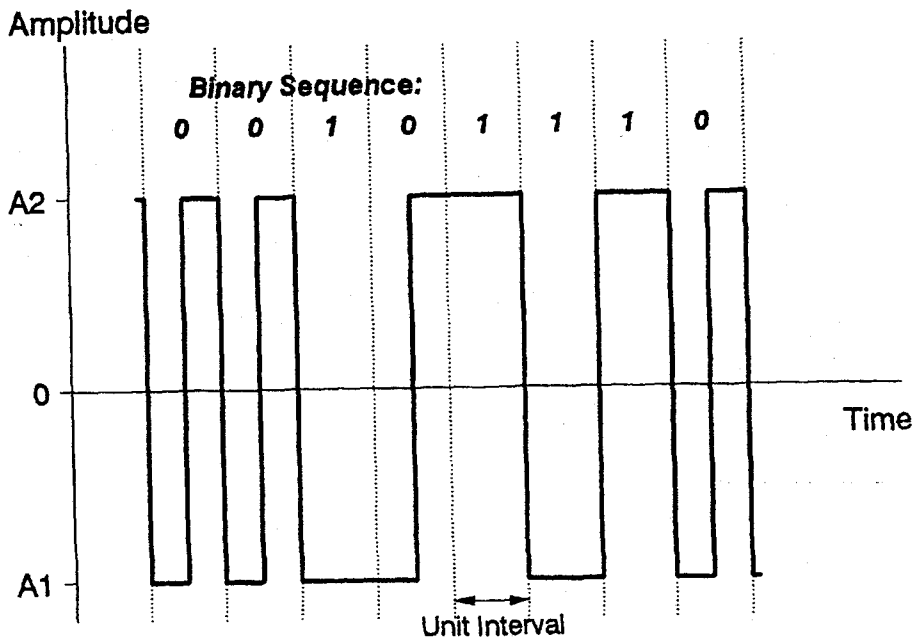
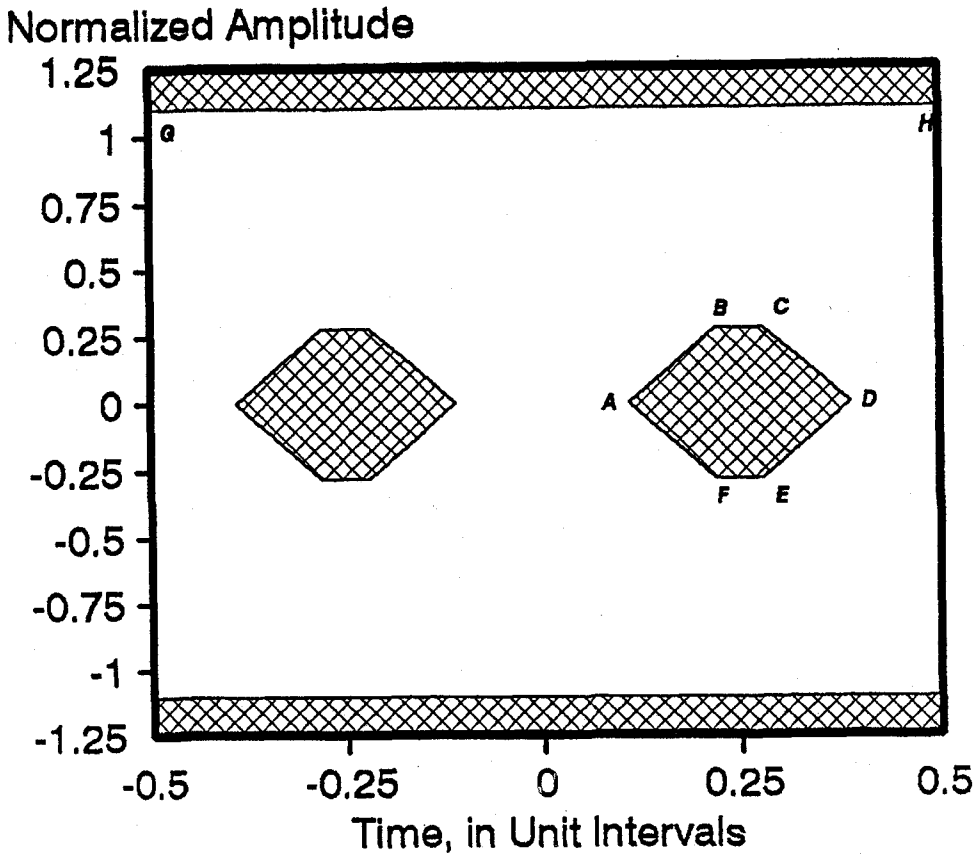


Figure 6 – Example of CMI coding



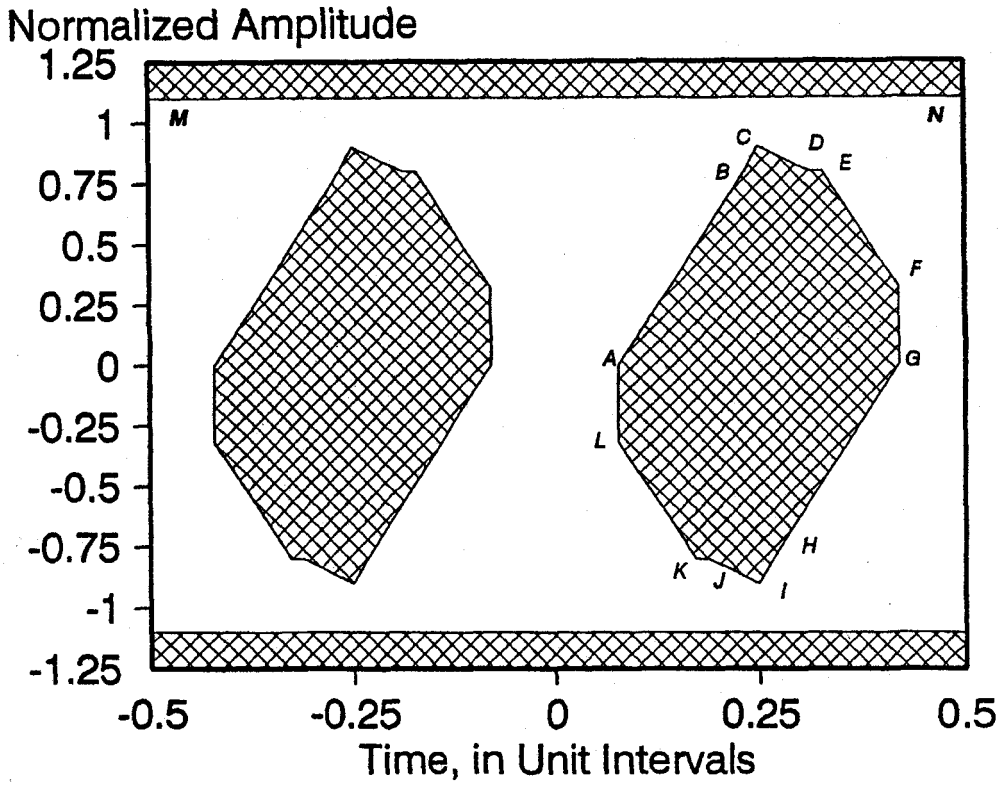
Inner region corner points			Outer region corner points		
Point	**Time**	**Amplitude**	**Point**	**Time**	**Amplitude**
A	0.112	0.0	G	-0.5	1.1
B	0.22	0.28	H	0.5	1.1
C	0.28	0.28			
D	0.388	0.0			
E	0.28	-0.28			
F	0.22	-0.28			

NOTES

1 Inner regions are identically shaped, but displaced by one-half unit interval.

2 Outer regions are symmetric about zero amplitude axis

Figure 7 – DS4NA interface eye diagram



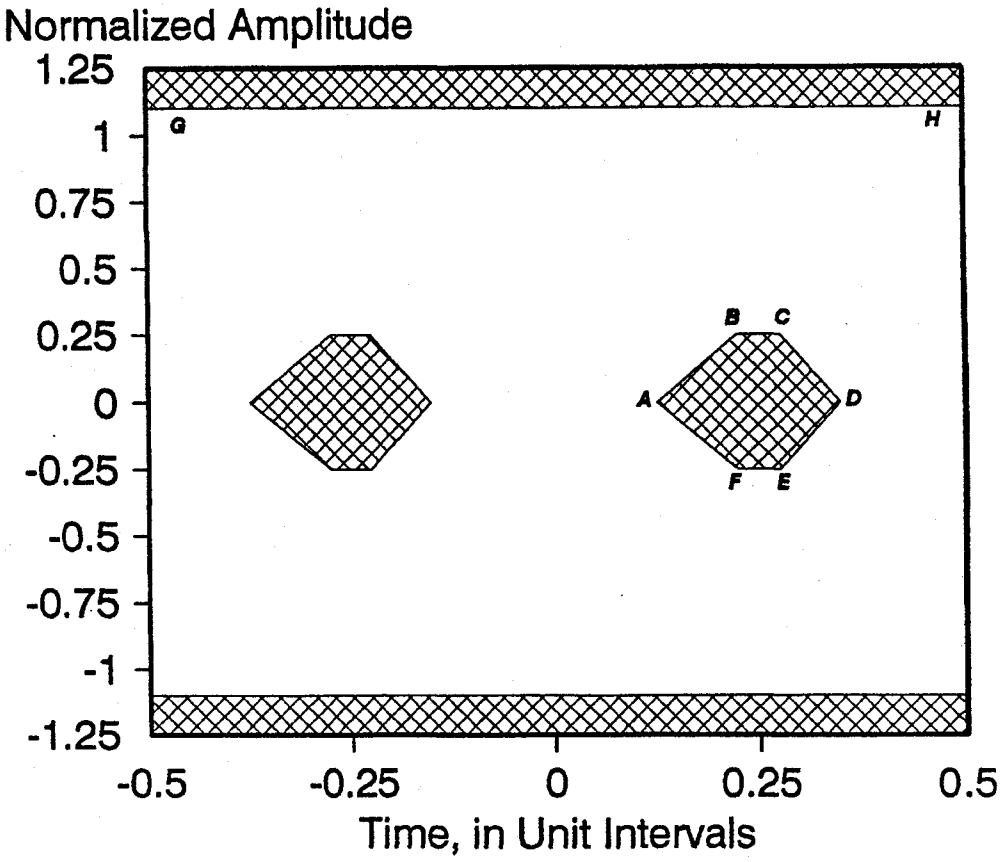
Inner region corner points			Outer region corner points		
Point	**Time**	**Amplitude**	**Point**	**Time**	**Amplitude**
A	0.078	0.0	M	-0.5	1.1
B	0.233	0.8	N	0.5	1.1
C	0.25	0.9			
D	0.313	0.8			
E	0.329	0.8			
F	0.422	0.32			
G	0.422	0.0			
H	0.267	-0.8			
I	0.25	-0.9			
J	0.187	-0.8			
K	0.171	-0.8			
L	0.078	-0.32			

NOTES

1 - Inner regions are identically shaped, but displaced by one-half unit interval.

2 - Outer regions are symmetric about zero amplitude axis

Figure 8 – DS4NA maximum equipment output eye diagram



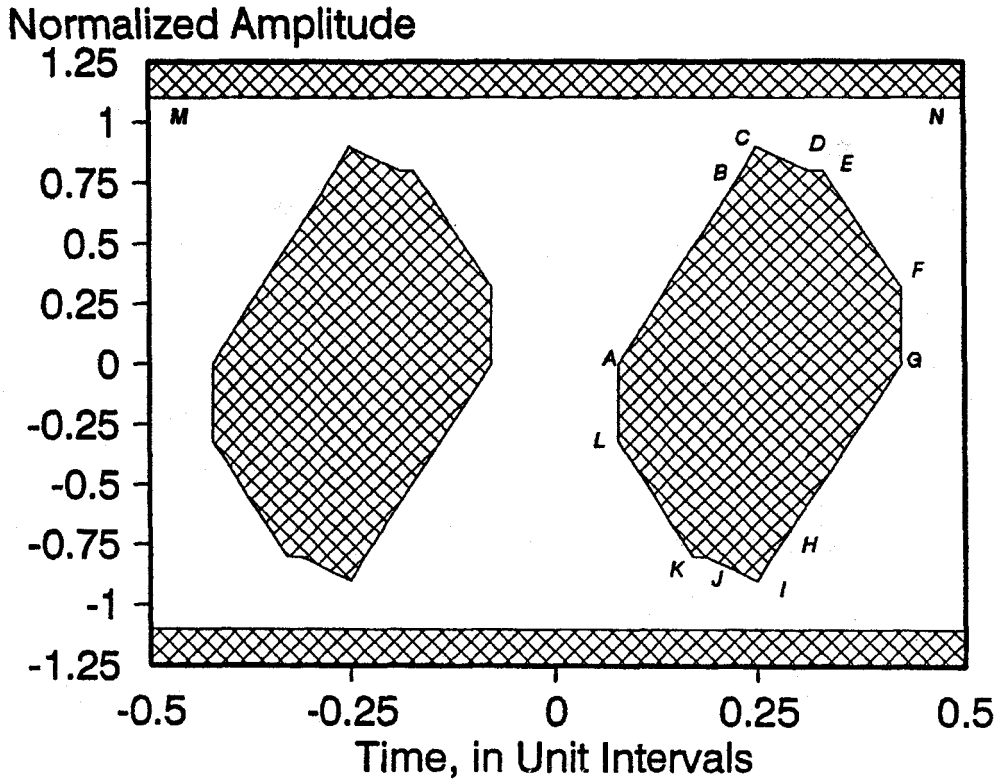
Inner region corner points			Outer region corner points		
Point	**Time**	**Amplitude**	**Point**	**Time**	**Amplitude**
A	0.125	0.0	G	-0.5	1.1
B	0.225	0.25	H	0.5	1.1
C	0.275	0.25			
D	0.35	0.0			
E	0.275	-0.25			
F	0.225	-0.25			

NOTES

1 - Inner regions are identically shaped, but displaced by one-half unit interval.

2 - Outer regions are symmetric about zero amplitude axis

Figure 9 – STS-3 interface eye diagram



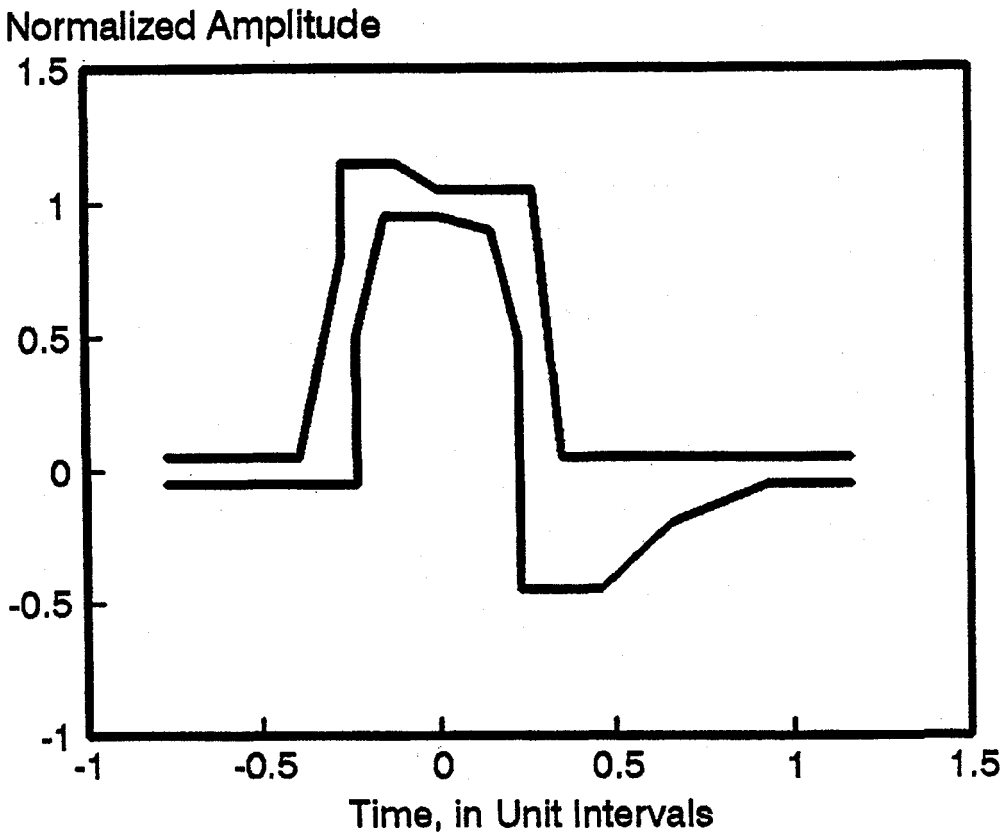
Inner region corner points			Outer region corner points		
Point	**Time**	**Amplitude**	**Point**	**Time**	**Amplitude**
A	0.078	0.0	M	-0.5	1.1
B	0.233	0.8	N	0.5	1.1
C	0.25	0.9			
D	0.313	0.8			
E	0.329	0.8			
F	0.422	0.32			
G	0.422	0.0			
H	0.267	-0.8			
I	0.25	-0.9			
J	0.187	-0.8			
K	0.171	-0.8			
L	0.078	-0.32			

NOTES

1 - Inner regions are identically shaped, but displaced by one-half unit interval.

2 - Outer regions are symmetric about zero amplitude axis

Figure 10 – STS-3 maximum equipment output eye diagram



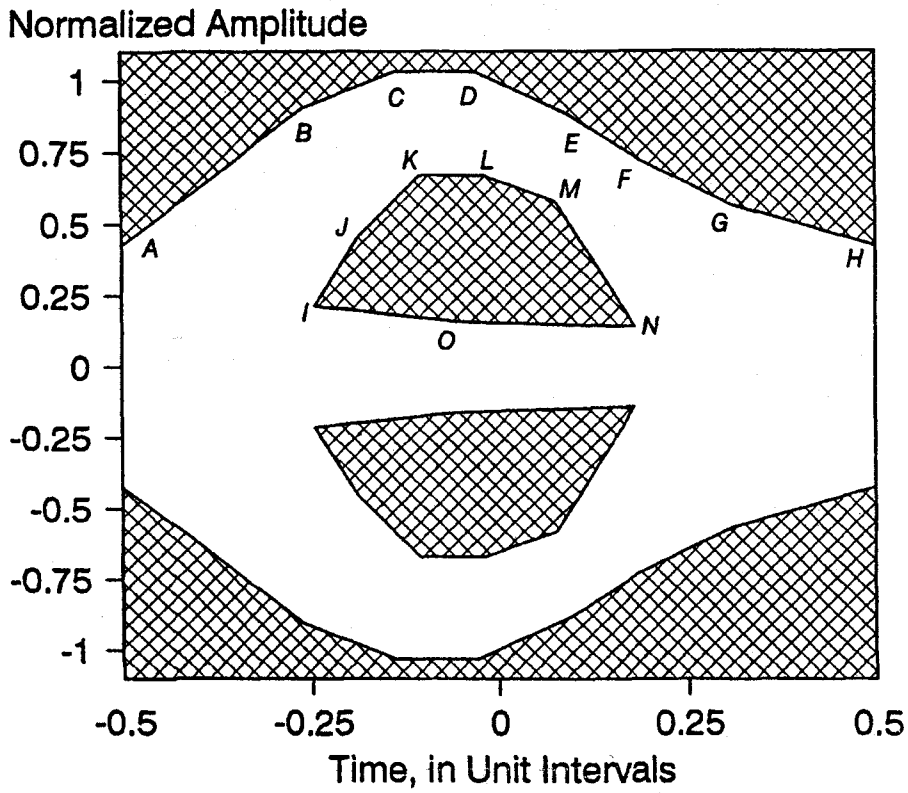
Minimum curve		Maximum curve	
Time	Normalized amplitude	Time	Normalized amplitude
-.77	-.05	-.77	.05
-.23	-.05	-.39	.05
-.23	.5	-.27	.8
-.15	.95	-.27	1.15
0.0	.95	-.12	1.15
.15	.9	0.0	1.05
.23	.5	.27	1.05
.23	-.45	.35	.05
.46	-.45	.93	.05
.66	-.2	1.16	.05
.93	-.05		
1.16	-.05		

Figure 11 – DS1A interface isolated pulse mask and corner points

Annex A
(normative)

STS-1 eye diagram

Pulse shape can be evaluated only with an eye diagram if the entire STS-1 signal is to be examined. The complete STS-1 signal at the interface shall conform to the eye diagram shown in figure A.1; see 5.2 for allowable procedures to be followed in checking conformance. Exclusionary regions are shown as crosshatched areas on the figure. The corner points of these regions are listed below the figure. Note that a stable STS-1-rate clock signal is required to trigger the display device to yield an accurate eye-diagram measurement.



Outer region corner points			Inner region corner points		
Point	**Time**	**Amplitude**	**Point**	**Time**	**Amplitude**
A	-0.5	0.426	I	-0.245	0.214
B	-0.261	0.904	J	-0.187	0.455
C	-0.136	1.03	K	-0.104	0.67
D	-0.028	1.03	L	-0.017	0.67
E	0.094	0.883	M	0.077	0.581
F	0.187	0.723	N	0.18	0.14
G	0.31	0.566	O	-0.054	0.16
H	0.5	0.426			

NOTE - Both inner and outer regions are symmetric about zero amplitude axis

Figure A.1 – STS-1 interface eye diagram

Annex B
(informative)

Manual DS*N* cross-connect characteristics

B.1 General

The interface specifications in this standard are written so as to not dictate any particular technological approach to providing the interface. This annex describes details of the manual cross-connect frame technology that provides these interface functions in present networks. Implementation of an interface with electronic cross-connect technology would alter a number of these details, particularly in the area of return loss, insertion loss, and crosstalk loss.

The North American cross-connects are designated DSX-*N*, where *N* indicates the level (DS*N*) of the digital network interconnected at that cross-connect. Thus, DS1 equipment is interconnected at the DSX-1 cross-connect, DS1A equipment is interconnected at the DSX-1A cross-connect, and so on. In designating the physical connection to these cross-connects, the distribution frame jack connected to a pair bringing signals to the distribution frame is designated the out-jack. The distribution frame jack connected to a pair carrying signals away from the distribution frame is designated the in-jack. Widespread practice references the Interface to the out-jack appearance on a cross-connect.

The detailed electrical characteristics of typical cables used to connect equipment to and from cross-connects appear in annex C. Maximum cable lengths in use, based on current engineering practice in networks is included for each of the cross-connect implementation descriptions.

B.2 Implementation descriptions

B.2.1 DSX-1

DSX-1 cross-connects can be engineered in a variety of configurations in the network. A simplified schematic diagram for a DSX is shown for reference in figure B.1.

Typical electrical parameters associated with the DSX-1 cross-connect include:

- The insertion loss of the DSX-1 is typically less than the loss of 85 feet of 22 gauge cross-connect wire.

- The return loss at the DSX-1 is typically greater than 26 dB at 772 kHz. The measurement is made at the out-jack including the effect of 85 feet of 22 gauge cross-connect or patch cabling to an in-jack which is terminated in 100 ohms ±5% tolerance.

- The crosstalk loss at the DSX-1 is typically greater than 55 dB at 772 kHz between the out-jack and the in-jack of adjacent signal paths. All other jacks are terminated with 100 ohms ±5% tolerance terminations.

- Protected (non-intrusive) monitoring access is provided through a high impedance bridging circuit consisting of 432 ohm ±5% tolerance resistors connected to the tip and ring conductors at the out-jack. This provides a monitor level 19.64 dB ±0.87 dB below the signal power.

- Typical engineering rules constrain cabling to and from equipment to the DSX-1 cross-connect to up to 655 feet of multi-pair 22 AWG office cable with overall outer shield. This cable is also widely known as 22 AWG ABAM.

B.2.2 DSX-1A

DSX-1A cross-connects can be engineered in a variety of configurations in the network. A simplified schematic diagram for a DSX is shown for reference in figure B.1. Typical electrical parameters associated with the DSX-1A cross-connect include:

- The insertion loss of the DSX-1A is typically less than the loss of 85 feet of 22 gauge cross-connect wire.

- The return loss of the DSX-1A is typically greater than 26 dB at 1.024 MHz. The measurement is made at the out-jack including the effect of 85 feet of 22 gauge cross-con-

nect or patch cabling to an in-jack which is terminated in 100 ohms ±5% tolerance.

– The crosstalk loss of the DSX-1A is typically greater than 55 dB at 1.024 MHz between the out-jack and the in-jack of adjacent signal paths. All other jacks are terminated with 100 ohms ±5% tolerance terminations.

– Protected (non-intrusive) monitoring access is provided through a high impedance bridging circuit consisting of 432 ohm ±5% tolerance resistors connected to the tip and ring conductors at the out-jack. This provides a monitor level 19.64 dB ±0.87 dB below the signal power.

– Typical engineering rules constrain cabling to and from equipment to the DSX-1A cross-connect to up to 655 feet of multi-pair 22 AWG office cable with overall outer shield. This cable is also widely known as 22 AWG ABAM.

B.2.3 DSX-1C

DSX-1C cross-connects can be engineered in a variety of configurations in the network. A simplified schematic diagram for a DSX is shown for reference in figure B.1. Typical electrical parameters associated with the DSX-1C cross-connect include:

– The insertion loss of the DSX-1C is typically less than the loss of 85 feet of 22 gauge cross-connect wire.

– The return loss of the DSX-1C is typically greater than 26 dB at 1.576 MHz. The measurement is made at the out-jack including the effect of 85 feet of 22 gauge cross-connect or patch cabling to an in-jack which is terminated in 100 ohms ±5% tolerance.

– The crosstalk loss of the DSX-1C is typically greater than 55 dB at 1.576 MHz between the out-jack and the in-jack of adjacent signal paths. All other jacks are terminated with 100 ohms ±5% tolerance terminations.

– Protected (non-intrusive) monitoring access is provided through a high impedance bridging circuit consisting of 432 ohm ±5% tolerance resistors connected to the tip and ring conductors at the out-jack. This provides a monitor level 19.64 dB ±0.87 dB below the signal power.

– Typical engineering rules constrain cabling to and from equipment to the DSX-1C cross-connect to up to 655 feet of multi-pair 22 AWG office cable with overall outer shield. This cable is also widely known as 22 AWG ABAM.

B.2.4 DSX-2

DSX-2 cross-connects can be engineered in a variety of configurations in the network. A simplified schematic diagram for a DSX is shown for reference in figure B.1. Typical electrical parameters associated with the DSX-2 cross-connect include:

– The insertion loss of the DSX-2 is typically less than the loss of 15 feet of individually shielded 22 gauge pairs.

– The return loss of the DSX-2 is typically greater than 26 dB at 3.156 MHz. The measurement is made at the out-jack including the effect of 15 feet of 22 gauge individually shielded twisted pairs to an in-jack which is terminated in 110 ohms ±5% tolerance.

– The crosstalk loss of the DSX-2 is typically greater than 55 dB at 3.156 MHz between the out-jack and the in-jack of adjacent signal paths. All other jacks are terminated with 110 ohms ±5% tolerance terminations.

– Protected (non-intrusive) monitoring access is provided through a high impedance bridging circuit consisting of 432 ohm ±5% tolerance resistors connected to the tip and ring conductors at the out-jack. This provides a monitor level 18.9 dB ±0.87 dB below the signal power.

– Typical engineering rules constrain cabling to and from equipment to the DSX-2 cross-connect to up to 1000 feet of multi-pair 22 AWG office cable with overall outer shield. This cable is also widely known as 22 AWG ABAM.

B.2.5 DSX-3

DSX-3 cross-connects can be engineered in a variety of configurations in the network. A simplified schematic diagram for a DSX is shown for reference in figure B.2. Typical

electrical parameters associated with the DSX-3 cross-connect include:

- The insertion loss of the DSX-3 is typically less than 1.15 dB at 22.368 MHz.

- The return loss of the DSX-3 is typically greater than 20 dB at 22.368 MHz. The measurement is made at the out-jack including the effect of 27 feet of cross-connect or patch cabling (WE Co 728 A cable or equivalent) to an in-jack which is terminated in 75 ohms ±5% tolerance.

- The crosstalk loss of the DSX-3 is typically greater than 55 dB at 22.368 MHz between the out-jack and the in-jack of adjacent signal paths. All other jacks are terminated with 75 ohm ±5% tolerance terminations.

- Protected (non-intrusive) monitoring access is provided through a bridging circuit connected to the center conductor and outer shield at the out-jack. This provides a monitor level 21.5 dB ±1.5 dB below the signal power.

- Typical engineering rules constrain cabling to and from equipment to the DSX-3 cross-connect to up to 450 feet of 75 ohm coaxial cable with tinned copper shield (WE Co 728 A cable or equivalent).

B.2.6 DSX-4NA

A simplified schematic diagram for a DSX is shown for reference in figure B.2. Typical electrical parameters associated with the DSX-4NA cross-connect include:

- The insertion loss of the DSX-4NA is typically less than 2.0 dB.

- The return loss of the DSX-4NA is typically greater than 20 dB at from 7 MHz to 280 MHz.

- The crosstalk loss of the DSX-4NA is typically greater than 50 dB from 7 MHz to 280 MHz between the out-jack and the in-jack of adjacent signal paths. All other jacks are terminated with 75 ohm ±5% tolerance terminations.

- Protected (non-intrusive) monitoring access is provided through a bridging circuit connected to the center conductor and outer shield at the out-jack. This provides a monitor level 21.5 dB ±1.5 dB below the signal power.

- Typical engineering rules constrain cabling to and from equipment to the DSX-4NA cross-connect to up to 225 feet of 75 ohm coaxial cable with tinned copper shield (WE Co 728 A cable or equivalent).

B.2.7 STSX-1

Characteristics to be determined.

B.2.8 STSX-3

Characteristics to be determined.

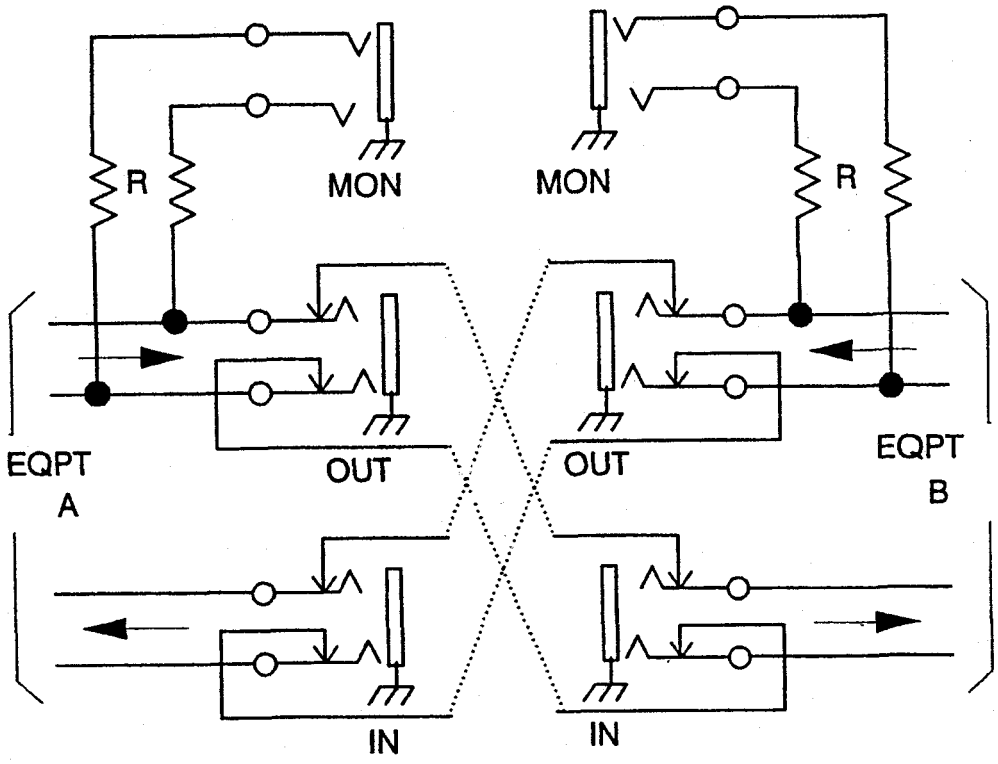


Figure B.1 – Schematic drawing of cross-connects for DSX-1, DSX-1A, DSX-1C, and DSX-2

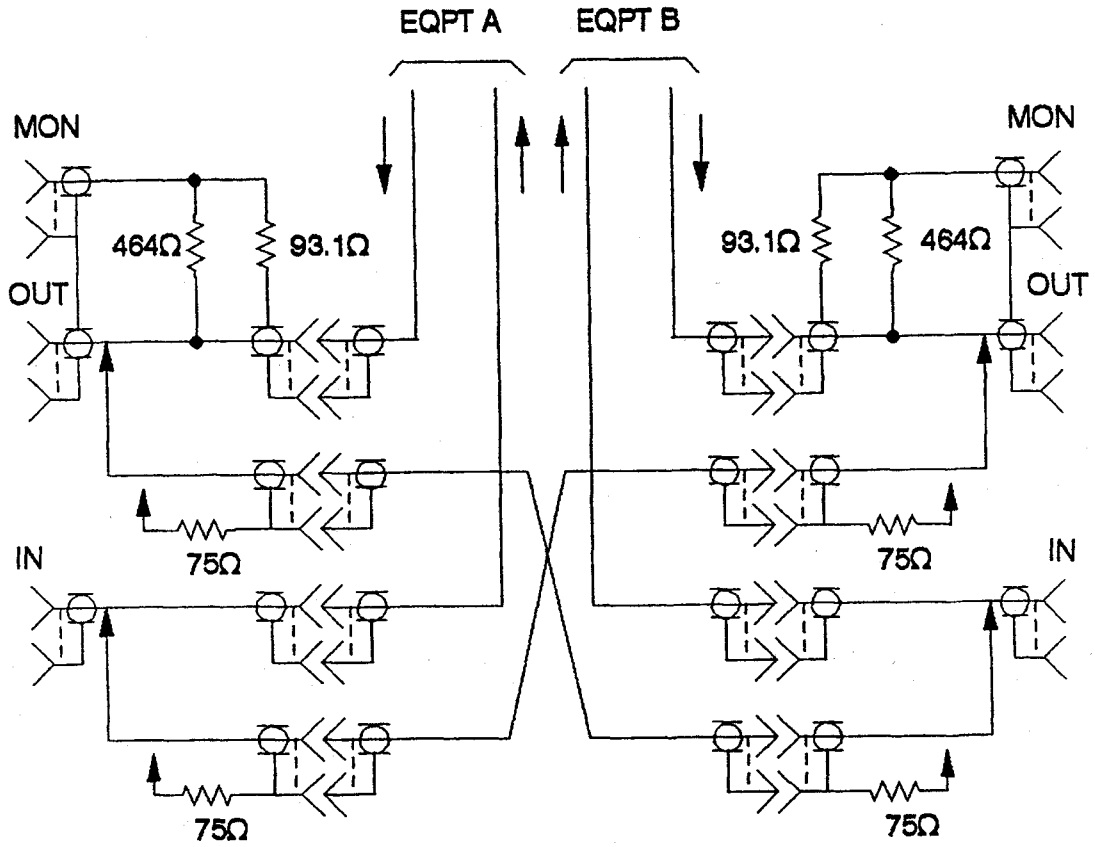


Figure B.2 – Cross-connect schematic for DSX-3 and DSX-4NA

Annex C
(informative)

Cable characteristics

C.1 General

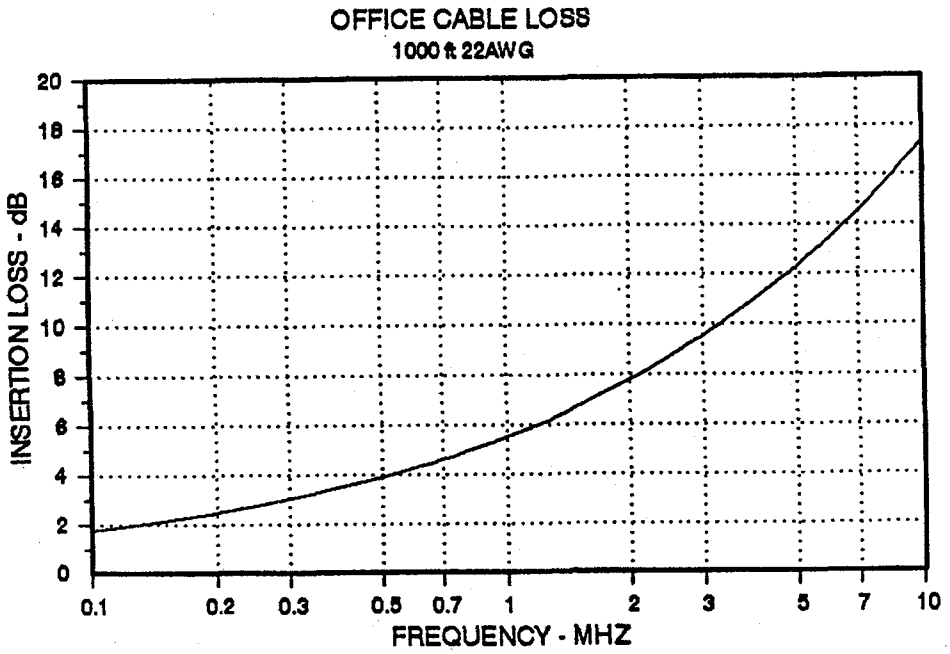
This annex describes the electrical transmission characteristics of telephone cables in widespread use in North American networks to connect equipment to DSX-*N* cross-connects. This information is of value to equipment designers to enable them to generate signals meeting the appropriate digital interface specifications in this standard.

C.2 Paired cable characteristics

Connections to DSX-1,-1A,-1C, and DSX-2 cross connects are typically made with 22 AWG cable intended for use in commercial buildings. Examples of insertion loss and phase characteristics of this cable are shown in figure C.1.

C.3 Coaxial cable characteristics

Connections between equipment and DSX-3, DSX-4NA, STSX-1 and STSX-3 cross-connects are typically made with 75 ohm coaxial cable. Examples of insertion loss and phase characteristics for that cable are shown in figure C.2.



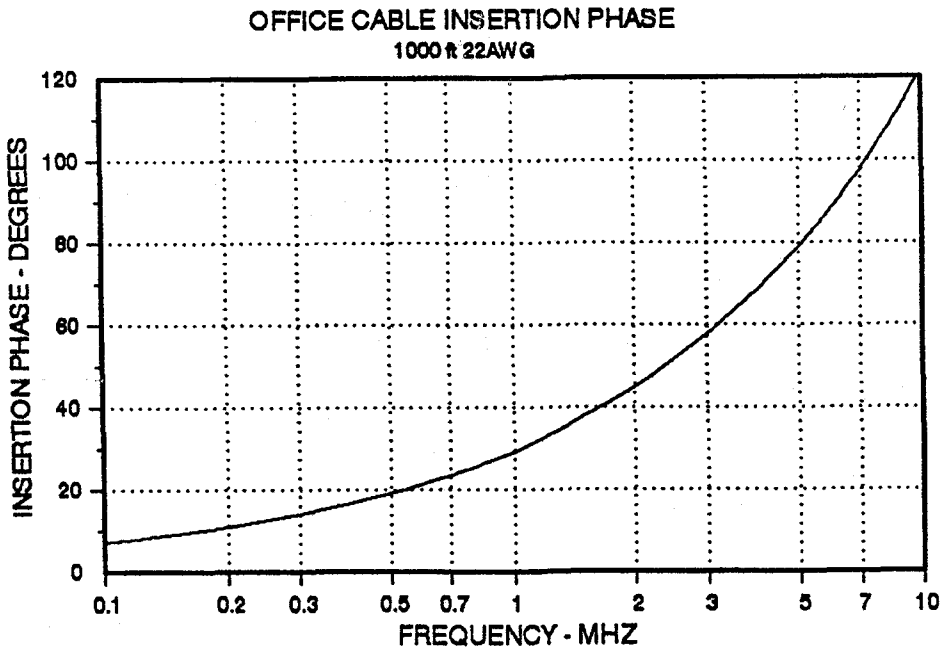
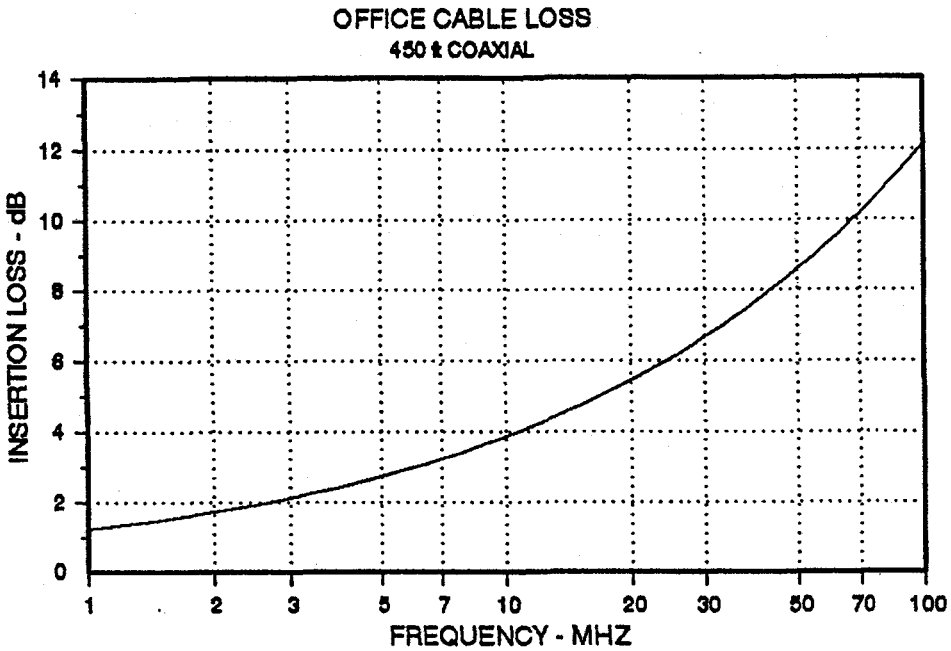


Figure C.1 – Insertion loss and phase of typical cable for DS1, DS1A, DS1C, and DS2



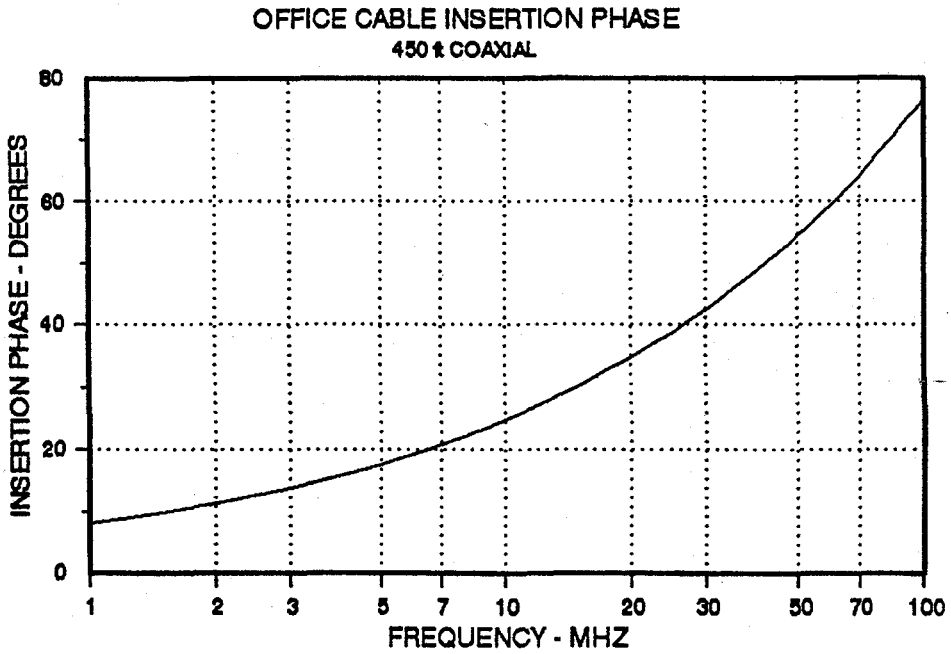


Figure C.2 – Insertion loss and phase of typical cable for DS3, DS4NA, STS-1, and STS-3

Annex D
(informative)

Obsolete DS1 interface specification

D.1 General

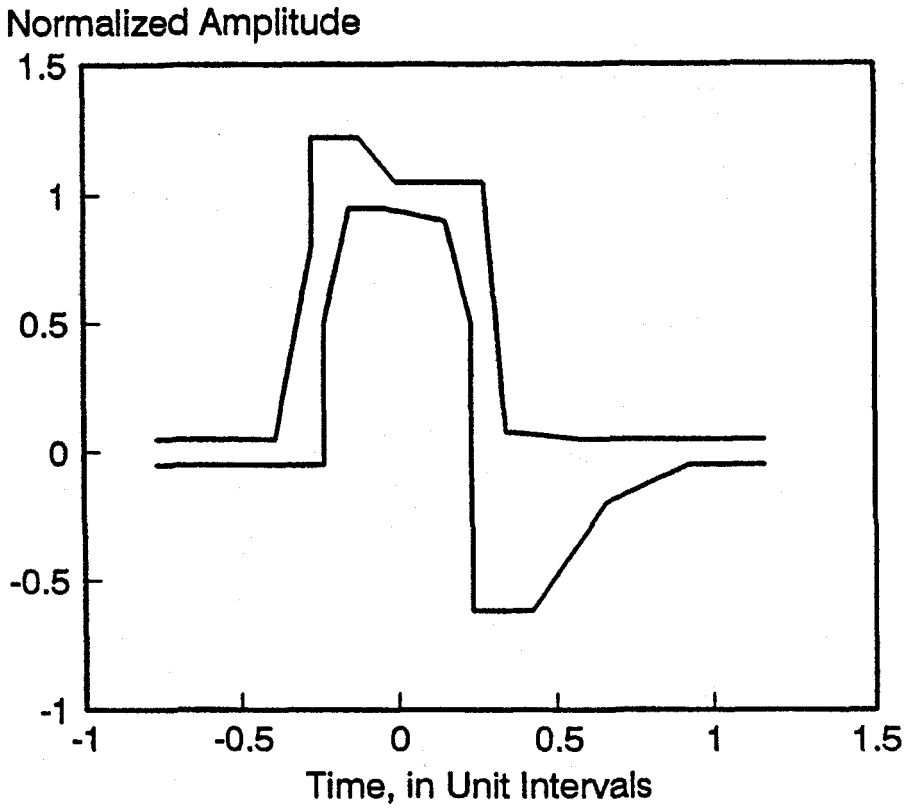
This annex describes an earlier DS1 interface that included a pulse mask with substantially greater allowance for overshoot on the trailing edge of the pulse than the current standard. While the current pulse mask has been socialized in a number of network compatibility publications since the late 1970s, equipment designed to the earlier specification may be widespread in the network. Hence, designers of equipment need to be aware of the nature of signals that may be delivered to that equipment.

D.2 Interface specification

Most of the interface parameters in table 1 including power levels and pulse amplitudes apply to the older interface. One major difference is in the line rate tolerance. The older specification calls for a ±130 ppm tolerance, reflecting an earlier, now obsolete, technology for line driver circuitry.

D.3 Pulse mask

Figure D.1 is the DS1 pulse mask corresponding to the earlier interface specification. It is based on equipment generating pulses with considerably more overshoot on the trailing edge than is currently allowed in the standard.



Minimum curve		Maximum curve	
Time	Normalized amplitude	Time	Normalized amplitude
-.77	-.05	-.77	.05
-.23	-.05	-.39	.05
-.23	.5	-.27	.8
-.15	.95	-.27	1.22
-.04	.95	-.12	1.22
.15	.9	0.0	1.05
.23	.5	.27	1.05
.23	-.62	.34	.08
.42	-.62	.58	.05
.66	-.2	1.16	.05
.93	-.05		
1.16	-.05		

Figure D.1 – Obsolete DS1 interface isolated pulse mask and corner points

Annex E
(informative)

Use of ITU-T Recommendation G.703 (formerly CCITT Recommendation G.703)

The ITU-T Recommendation G.703 2048 kbits/s specification and the DS1A interface specified in this standard have some fundamental differences. ITU-T Recommendation G.703 specifies the pulse shape and associated parameters at the equipment output port, whereas this standard gives the pulse specifications at an interface (i.e., the isolated pulse mask and power level at the crossconnect) that may be some distance from the equipment. Some pulses meeting the ITU-T Recommendation G.703 may meet the DS1A requirements through short distances of interconnect cable.

For applications where the 2.048 Mbit/s pulse is not required to meet the DS1A interface requirement, the ITU-T Recommendation G.703 output can operate over cable lengths of approximately 1120 feet. This equates to the 6.0 dB of total loss permissible at the ITU-T Recommendation G.703 2.048 Mbit/s input port. In order to prevent interference between 1.544 Mbit/s signals and 2.048 Mbit/s signals when operating in this mode, separate cables and crossconnect equipment should be used.

For applications where the 2.048 Mbit/s pulse must meet the DS1A interface requirement, a new transmitter will be required. This new transmitter will permit the utilization of embedded cable, and can be designed to provide the equal level pulse at the interface. This minimizes the probability of crosstalk, and eliminates the need for separate cable sheaths and crossconnect equipment.

Annex F
(informative)

Bibliography

This standard is also intended to be used in conjunction with International Telecommunications Union – Telecommunications Standardization Sector (ITU-T) recommendations (formerly CCITT recommendations):

ITU-T Recommendation G.703, *Physical/Electrical Characteristics of Hierarchical Digital Interfaces*[4)]

ITU-T Recommendation G.704, *Synchronous Frame Structures Used at Primary and Secondary Hierarchical Levels*[4)]

ITU-T Recommendation G.772, *Digital Protected Monitoring Points*[4)]

[4)] Available from American National Standards Institute, 11 West 42nd Street, New York, NY 10036.

EXHIBIT

C-17
admitted

COVAD – 17

Arizona Updated Joi.. Disputed Issues List -
Docket No. T-03632A-04-0425/T-01051B-04-0425
Qwest/Covad Arizona Interconnection Agreement Negotiations
January 31, 2005

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
			NOTE: Underlined language is language proposed by Covad. Strikethrough language is Qwest proposed language that Covad does not agree with.	
Issue 1 9.1.15, (and subsections) Retirement of Copper Facilities	9.1.15 In the event Qwest decides to retire a copper loop, copper feeder or copper subloop and replace it with fiber, Qwest will: (i) provide notice of such planned retirement on its web site (www.qwest.com/disclosures); and (ii) provide email notice of such planned retirement to CLECs; and (iii) provide public notice of such planned replacement to the FCC. Qwest can proceed with copper retirement at the conclusion of the applicable FCC notice process as	The *TRO* confirms the right of ILECs to retire copper loops and subloops that have been replaced with fiber. In granting ILECs the right to retire copper loops, the FCC rejected CLEC proposals that would have required ILECs to obtain regulatory approval before retiring these facilities. The FCC found that these conditions are	9.1.15 In the event Qwest decides to retire a copper loop, copper feeder, or copper Subloop and replaces it with fiber, Qwest shall provide: (a) notice of such planned retirement on its website (www.qwest.com/disclosures); and (ii) e-mail notice of such planned retirement to CLECs; and (iii) public notice of such planned replacement to the FCC. Qwest can proceed with copper retirement at the conclusion of the applicable FCC notice process as	Any notice given must be meaningful, and therefore Covad has included in its proposed language what information the notice should include. There is no legitimate basis for treating DSL service as an inferior service that may be disrupted as a result of a Qwest construction project. Covad's proposed

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Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	identified in FCC rules unless retirement was explicitly denied (or otherwise delayed or modified). Such notices shall be in addition to any applicable state commission requirements.	unnecessary because its existing notice rules for network changes provide "adequate safeguards" for CLECs. Thus, ILECs are permitted to retire copper loops and subloops, as long as they comply with the FCC's notice requirements relating to network changes. Other than the notice requirements, the *TRO* does not impose conditions on an ILEC's right to retire copper facilities. Covad's proposal would effectively eliminate this important right and should be	identified in FCC rules unless retirement was explicitly denied (or otherwise delayed or modified). Such notices shall be in addition to any applicable state commission requirements. <u>The e-mail notice provided to each CLEC shall include the following information: city and state; wire center; planned retirement date; the FDI address; a listing of all impacted addresses in the DA; a listing of all of CLEC's customer impacted addresses; old and new cable media, including transmission characteristics; circuit identification information; and cable and pair information.</u> 9.1.15.1 <u>Continuity of</u>	language merely clarifies that the facilities made available by Qwest will be of a character that will allow continued DSL service to the end user. The FCC's rules are designed to provide adequate safeguards to ensure that competitive LECs can work together with incumbent LECs, such as Qwest, "to ensure competitive LECs maintain access to loop facilities." *Triennial Review Order, ¶ 281.* The FCC further clarified that the purpose of the rule changes was to ease restrictions in incumbent LECs

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		rejected. There is no basis in the *TRO* or in any other FCC order for requiring Qwest to provide an "alternative service" to Covad before it can retire a copper facility. In addition, Covad's proposal that the "alternative service" not result in a price increase for Covad or its customers would prevent Qwest from recovering its costs in violation of the Act's requirement that ILECs recover the costs they incur to provide interconnection and access to network elements. *See* 47	Service During Copper Retirement. This section applies where Qwest retires copper feeder cable and the resultant loop is comprised of either (1) mixed copper media (i.e. copper cable of different gauges or transmission characteristics); or (2) mixed copper and fiber media (i.e. a hybrid copper-fiber loop) (collectively, "hybrid loops") over which Qwest itself could provide a retail DSL service. This section does not apply where the resultant loop is a fiber to the home (FTTH) loop or a fiber to the curb (FTTC) loop (a fiber transmission facility connecting to copper distribution plant that is not more than 500 feet from the customer's premises) serving mass market or	"unless the copper retirement scenario suggests that competitors will be denied access to the loop facilities required under our rules." *Triennial Review Order,* ¶ *282.* Access to xDSL capable loops is undeniably required by the FCC's rules, and the copper retirement scenarios Covad identifies in its proposals would clearly deny Covad access to xDSL capable loops. The FCC also clarified that the intent of their copper retirement rules was not to preempt state commission's

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		U.S.C. 252(d)(1). Further, Covad's new proposal that would make its "alternative service" requirement inapplicable to situations in which Qwest replaces copper facilities with fiber-to-the-home ("FTTH") or fiber-to-the-curb loops ("FTTC") does not cure the legal flaws in Covad's proposed language. The FCC has clearly stated that ILECs are permitted to retire copper loops that they have replaced with any fiber facility, not just FTTH and FTTC fiber facilities. *See, e.g.*, *TRO* at ¶ 271. Covad's	residential End User Customers. 9.1.15.1.1 When Qwest retires copper feeder for loops serving CEC-served End User Customers or the CLEC at the time such retirement is implemented, Qwest shall adhere to all regulatory and legal requirements pertaining to changes in the Qwest network. Qwest will not retire copper facilities serving CLEC's End User Customers or CLEC, at any time prior to discontinuance by CLEC or CLEC's End User Customer of the service being provided by CLEC, without first provisioning an alternative service over any available, compatible facility (i.e., copper or fiber) to CLEC or CLEC End User Customer.	evaluation of any copper retirement plan, or any other existing state legal or regulatory requirements. *Triennial Review Order*, ¶ 284.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		improper proposal to limit Qwest's retirement rights to situations involving the installation of FTTH or FTTC loops would create an economic disincentive for Qwest to deploy fiber facilities in violation of the Act's objective of encouraging investment in those facilities. Qwest's proposed language is consistent with the *TRO*. Specifically, it provides that Qwest can retire copper facilities but, consistent with the FCC's network modification	Such alternative service shall be provisioned in a manner that does not degrade the service or increase the cost to CLEC or End User Customers of CLEC. Disputes over copper retirement shall be subject to the Dispute Resolution provisions of this Interconnection Agreement.	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		procedures, establishes a notice and objection process for planned retirements. Qwest's proposal also provides more protection for Covad than required under the *TRO* by establishing that: (1) Qwest will leave copper loops and subloops in service where it is technically feasible to do so; and (2) Qwest will coordinate with Covad the transition to new facilities "so that service interruption is held to a minimum."		

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
Issue 2 4.0 Definition ("Unbundled Network Element") Unified Agreement – 271 Elements Included	"Unbundled Network Element" (UNE) is a Network Element that has been defined by the FCC or the Commission as a Network Element to which Qwest is obligated under Section 251(c)(3) of the Act to provide unbundled access or for which unbundled access is provided under this Agreement. Unbundled Network Elements do not include those Network Elements Qwest is obligated to provide only pursuant to Section 271 of the Act.	Covad asks the Commission to exercise authority it does not have by requesting language that would require Qwest to provide network elements under section 271 and to provide elements under state law that the FCC has ruled ILECs are not required to provide. Even if the Commission had the authority Covad assumes, Covad's proposed language requiring Qwest to provide unbundled access to "all UNEs required by [§ 271] and [state law]" is highly ambiguous	"Unbundled Network Element" (UNE) is a Network Element that has been defined by the FCC or the Commission as a Network Element to which Qwest is obligated under Section 251(c)(3) of the Act to provide unbundled access, <u>for which unbundled access is required under section 271 of the Act or applicable state law,</u> or for which unbundled access is provided under this Agreement. ~~Unbundled Network Elements do not include those Network Elements Qwest is obligated to provide only pursuant to Section 271 of the Act.~~	Qwest continues to have obligations to provide network elements on an unbundled basis pursuant to Section 271 and state law. To label these elements as something other than "unbundled network elements" creates confusion and is semantically illogical. In addition, there is no justification for excluding non-251 UNEs from negotiations. To do otherwise would require the Commission to create an entirely new regime to review agreements

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		and would inevitably lead to disputes about the parties' rights and obligations. In addition, determinations of which network elements ILECs are required to provide must be based on fact-specific evaluations that focus on each individual element. Covad's undifferentiated request for access to all network elements required under section 271 and state law lacks the specificity needed to make the element-by-element determinations of whether applicable		reached with respect to state unbundling obligations, if not Section 271. After the *Triennial Review Order,* it is necessary to draw the distinction between unbundled network elements that meet the FCC's impairment standard under Section 251, and unbundled network elements that are available pursuant to Section 271 regardless of impairment analysis and/or state law. Failing to distinguish between types of UNEs now available will lead to confusion,

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		unbundling requirements are satisfied. No provision of the Act authorizes state commissions to impose or enforce obligations under § 271. First, state commission arbitration of disputes regarding the duties imposed by federal law is limited to those imposed by § 251 and does not include the conditions imposed by § 271. Second, § 271 itself confers no authority on state commissions to impose binding obligations. Third, basic principles of		especially with respect to the Parties intent when using the term "unbundled network element."

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		federal preemption, prevent the Commission from imposing unbundling requirements under Utah law that the FCC has rejected.		
Issue 2 9.1.1 Unified Agreement – 271 Elements Included	Changes in law, regulations or other "Existing Rules" relating to Unbundled Network Elements (UNEs), including additions and deletions of elements Qwest is required to unbundle and/or provide in a UNE Combination, shall be incorporated into this Agreement by amendment pursuant to Section 2.2. CLEC and Qwest agree that the UNEs identified in Section 9 are not exclusive and that pursuant to changes in FCC rules, state laws, or the Bona Fide Request Process, or Special	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements."	9.1.1 Qwest will provide to CLEC any and all UNEs required by the Telecommunications Act of 1996 (including, but not limited to Sections 251(b), (c), 252(a) and 271), FCC Rules, FCC Orders, and/or applicable state rules or orders, or which are ordered by the FCC, any state commission or any court of competent jurisdiction. Qwest is required to connect or combine 251(c)(3) UNEs with any and all of its service offerings, as required by the	See above.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	Request Process (SRP) CLEC may identify and request that Qwest furnish additional or revised UNEs to the extent required under Section 251(c)(3) of the Act and other Applicable Laws. Failure to list a UNE herein shall not constitute a waiver by CLEC to obtain a UNE subsequently defined by the FCC or the state Commission. UNE's shall only be obtained for the provision of Qualifying Services. To the extent a UNE is being used to provide Qualifying Services and spare capacity exists on that UNE, it may then be used for Non-Qualifying Services. Such use of spare capacity for Non-Qualifying Services will not affect the pricing of that UNE as set forth in Exhibit A. If it is determined that the Unbundled Network		Telecommunications Act of 1996, FCC Rules, FCC Orders and/or state law or orders. Qwest must provide all technically feasible 251(c)(3) UNE combinations, including 251(c)(3) UNEs ordinarily combined and new 251(c)(3) UNE combinations. Changes in law, regulations or other "Existing Rules" relating to Unbundled Network Elements (UNEs), including additions and deletions of elements Qwest is required to unbundle and/or provide in a UNE Combination, may be incorporated into this Agreement by amendment pursuant to Section 2.2. CLEC and Qwest agree that the UNEs identified in Section 9 are not exclusive and that pursuant to FCC rules, state laws, or the	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	Elements are used exclusively for Non-Qualifying Services, CLEC will have thirty (30) calendar Days to contact Qwest and make alternative service arrangements.		Bona Fide Request Process, or Special Request Process (SRP) CLEC may identify and request that Qwest furnish additional or revised UNEs to the extent required under Section 251(c)(3) or Section 271 of the Act, or other Applicable Laws. Failure to list a Section 251, Section 271 or state-mandated UNE herein shall not constitute a waiver by CLEC to obtain a UNE subsequently defined by the FCC or the state Commission. To the extent a UNE is being used to provide Qualifying Services and spare capacity exists on that UNE, it may then be used for Non-Qualifying Services. Such use of spare capacity for Non-Qualifying Services will not	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
			affect the pricing of that UNE as set forth in Exhibit A. ~~UNE's shall only be obtained for the provision of Qualifying Services. If it is determined that the Unbundled Network Elements are used exclusively for Non-Qualifying Srvices, CLEC will have thirty (30) calendar Days to contact Qwest and make alternate service arrangements.~~	
Issue 2 9.1.1.6 Unified Agreement – 271 Elements Included	9.1.1.6 On the Effective Date of this Agreement, Qwest is no longer obligated to provide to CLEC certain Network Elements that had formerly been required to be offered pursuant to Section 251 of the Act. These former Network Elements were determined by the FCC	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements."	9.1.1.6 <u>On the Effective Date of this Agreement, Qwest is no longer obligated to provide to CLEC certain Network Elements pursuant to Section 251 of the Act. Qwest will continue providing access to certain network elements as</u>	See above. It is not necessary to provide a list of products no longer available under Section 251 because many of them are nevertheless available under

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	to not satisfy the FCC's impairment test. As a result, these former Network Elements are not available pursuant to this Agreement. a) Ocn Loops; b) Feeder Subloops; c) DS3 Loops in excess of two (2) DS3 Loops per End User Customer location; d) E-UDIT (Enhanced Dedicated Unbundled Interoffice Transport) and E-UDF (Unbundled Dark Fiber) from a Qwest Wire Center to a CLEC Wire Center); e) Ocn UDIT f) DS3 Unbundled Dedicated Interoffice Transport (UDIT) in excess		required by Section 271 or state law, regardless of whether access to such UNEs is required by Section 251 of the Act. This Agreement sets forth the terms and conditions by which network elements not subject to Section 251 unbundling obligations are offered to CLEC.	Section 271 or state law. To the extent any elements are truly no longer available (such as E-UDIT), their absence from the Agreement should be sufficient to demonstrate that Qwest is not obligated to provide them.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	of twelve (12) DS3 circuits per route; g) Unbundled Signaling (except in conjunction with Unbundled Switching and UNE-P); h) Call Related Databases, including 8XX, LNP, ICNAM, LIDB and AIN) except in conjunction with Unbundled Switching and UNE-P; i) Packet Switching; j) UDIT and UDF as a part of a Meet-Point arrangement, billed entrance facility; k) Remote Node/Remote Port l) Line Sharing, in accordance with the			

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	Grandfathering and Transition Plan described in Section9.4.1.2; m) Fiber to the Home, in accordance with Section 9.2.1.2; n) Operator Services and Directory Assistance. except in conjunction with Unbundled Switching and UNE-P when Qwest does not provide customized routing or the equivalent; o) Unbundled Switching at a DS1 capacity, pursuant to a transition process described in Section 9.11.2.0; p) Unbundled Local Tandem Switching provisioned at the DS1 or above capacity;			

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	q) SONET add/drop multiplexing; and r) Non-copper distribution Subloop unless required to access Qwest owned inside wire at an MTE.			
Issue 2 9.1.1.7 Unified Agreement – 271 Elements Included	9.1.1.7 If, on the Effective Date of this Agreement, Qwest is providing to CLEC, pursuant to orders placed in accordance with a preceding Interconnection Agreement, any of the Network Elements described in Section 9.1.1.6 above for which an independent unbundling obligation exists under Section 271 of the Act, absent an agreement to the contrary, Qwest shall bill for such services in accordance with prices and terms that will be described on Qwest's	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements."	9.1.1.7 If, on the Effective Date of this Agreement, Qwest is providing to CLEC, pursuant to orders placed in accordance with a ~~preceding~~ Interconnection Agreement, any of the Network ~~Elements described in Section 9.1.1.6~~ above for which an independent unbundling obligation exists under Section 271 of the Act, <u>or applicable state law</u>, ~~absent an agreement to the contrary~~ <u>then</u> Qwest shall bill for such <u>UNEs and</u>	Qwest is not entitled to unilaterally impose retail prices for UNEs available pursuant to Section 271 or state law. There are sound public policy reasons to believe that these rates neither comply with Sections 201 and 202 of the Act or state law describing the proper pricing for UNEs.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	website or applicable Tariff. Such Billing shall commence on the Effective Date of this Agreement.		services using the Commission-approved TELRIC rates for such UNEs until such time as new, just, reasonable and non-discriminatory rates (as required by Sections 201 and 202 of the Act or applicable state law) are approved for the Section 271 or state law required UNEs ~~in accordance with prices and terms that will be described on Qwest's website or applicable Tariff. Such Billing shall commence on the Effective Date of this Agreement.~~	Previously established TELRIC rates offer a less problematic alternative, at least until the Commission decides how these rates should be set in the future so they are compliant with state and federal law.
Issue 2 9.1.1.7 Pricing of 271 Elements	9.1.1.7 If, on the Effective Date of this Agreement, Qwest is providing to CLEC, pursuant to orders placed in accordance with a preceding Interconnection Agreement, any of the Network Elements described in Section 9.1.1.6	Covad's position regarding pricing of network elements Qwest provides pursuant to § 271 has two basic flaws. First, Covad assumes	9.1.1.7 If, on the Effective Date of this Agreement, Qwest is providing to CLEC, pursuant to orders placed in accordance with a ~~preceding~~ Interconnection Agreement, any of the Network Elements	Qwest is not entitled to unilaterally impose retail prices for UNEs available pursuant to Section 271 or state law. There are sound public policy

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	above for which an independent unbundling obligation exists under Section 271 of the Act, absent an agreement to the contrary, Qwest shall bill for such services in accordance with prices and terms that will be described on Qwest's website or applicable Tariff. Such Billing shall commence on the Effective Date of this Agreement.	erroneously that state commissions have authority to set prices for these elements. They do not, as the pricing of § 271 elements is within the FCC's exclusive jurisdiction. Second, Covad claims incorrectly that the FCC has authorized the application of TELRIC-like pricing principles to § 271 elements. The FCC and the D.C. Circuit have both ruled very clearly that TELRIC pricing does not apply to network elements that BOCs provide under § 271 and that the prices for such elements are to be set by the	~~described in Section 9.1.1.6 above~~ for which an independent unbundling obligation exists under Section 271 or applicable state law, of the Act, ~~absent an agreement to the contrary~~, then Qwest shall bill for such UNE's and services using the Commission –approved TELRIC rates for such UNEs until such time as new, just, reasonable and non-discriminatory rates (as required by Section 271 or state law required UNEs. ~~in accordance with prices and terms that will be described on Qwest's website or applicable Tariff. Such Billing shall commence on the Effective Date of this Agreement.~~	reasons to believe that these rates neither comply with Sections 201 and 202 of the Act or state law describing the proper pricing for UNEs. Previously established TELRIC rates offer a less problematic alternative, at least until the Commission decides how these rates should be set in the future so they are compliant with state and federal law.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		FCC based on the standards in §§ 201 and 202 of the Communications Act of 1934.		
Issue 2 9.1.5 Unified Agreement – 271 Elements Included	9.1.5 CLEC may connect Network Elements in any Technically Feasible manner. Qwest will provide CLEC with the same features, functions and capabilities of a particular element or combinations of elements that Qwest provides to itself. Qwest will provide CLEC with all of the features and functionalities of a particular element or combination of elements (regardless of whether such combination of elements is ordered from Qwest in combination or as elements to be combined by CLEC), so that CLEC can provide any Telecommunications	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements" and "251(c)(3) UNE."	9.1.5 CLEC may connect Network Elements in any Technically Feasible manner. CLEC shall have the right to access UNEs, ancillary services or Network Elements offered pursuant to Section 271 at any technically feasible point as required by 47 C.F.R. 51.311, 47 U.S.C. 251(c)(3) and 47 U.S.C. 271 et seq. Qwest will provide CLEC with the same features, functions and capabilities of a particular element or combinations of elements that Qwest provides to itself. Qwest will provide CLEC with all of the	Qwest continues to have obligations to provide network elements on an unbundled basis pursuant to Section 271 and state law. There is no justification for excluding non-251 UNEs from provisions of the agreement describing access to UNEs.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	Services that can be offered by means of such element or combination of elements. Qwest will provide Unbundled Network Elements to CLEC in a manner that allows CLEC to combine such elements to provide any Telecommunications Services. Qwest shall not in any way restrict CLECs use of any element or combination of elements (regardless of whether such combination of elements is ordered from Qwest in combination or as elements to be combined by CLEC) except as Qwest may be expressly permitted or required by Existing Rules.		features and functionalities of a particular element or combination of elements (regardless of whether such combination of elements is ordered from Qwest in combination or as elements to be combined by CLEC), so that CLEC can provide any Telecommunications Services that can be offered by means of such element or combination of elements. Qwest will provide Unbundled Network Elements to CLEC in a manner that allows CLEC to combine such elements to provide any Telecommunications Services. Qwest shall not in any way restrict CLECs use of any element or combination of elements (regardless of whether such combination of elements is ordered from Qwest in	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
			combination or as elements to be combined by CLEC) except as Qwest may be expressly permitted or required by Existing Rules.	
Issue 2 9.2.1.3 Unified Agreement – 271 Elements Included	9.2.1.3 In the event the Commission determines, in accordance with 47 CFR 519(a)(4)-(6) that requesting Telecommunications Carriers are not impaired without access to DS1, DS3 or Dark Fiber Loops to a specific End User Customer location, Qwest will not provide, and CLEC shall not submit orders for, DS1, DS3, or Dark Fiber Loops, as appropriate, to such specific End User Customer locations. Qwest will maintain on its website a separate listing for DS1, DS3 and Dark Fiber Loops those End User Customer	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements".	9.2.1.3 In the event the Commission determines, in accordance with 47 CFR 519(a)(4)-(6) that requesting Telecommunications Carriers are not impaired without access to DS1, DS3 or Dark Fiber Loops to a specific End User Customer location pursuant to Section 251 of the Act, Qwest will provide access to such loops pursuant to Section 271 of the Act and applicable state law. Qwest will maintain on its website a separate listing for DS1, DS3, and Dark Fiber Loops for those End User Customer premises for	Notwithstanding any finding of non-impairment, existing UNEs must nevertheless be made available pursuant to Section 271 and state law. The Agreement should create an orderly process for the movement of UNEs from one category to another, rather than create uncertainty as to whether 271 or state law obligations apply.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	premises for which the Commission has so found. In the event CLEC has DS1, DS3 or Dark Fiber Loops in service to such a specific End User Customer location that pre-exists the Commission determination, CLEC shall make arrangements for other service. If such alternative arrangements are not in place within sixty (60) Days of the effective date of the Commission determination, Qwest may bill for such Loops in accordance with the Qwest Special Access Tariff.		which the Commission has found non-impairment under Section 251 of the Act. In the event CLEC has DS1, DS3, or Dark Fiber Loops in service to such a specific End User Customer location that pre-exists the Commission determination, CLEC shall make arrangements for any records changes, or alternate services, as required by applicable state law, and requested by Qwest. If such alternative arrangements are not in place within sixty (60) days of the effective date of the Commission determination, Qwest may bill for such Loops in accordance with Section 9.1.1.7 above.	
Issue 2 9.2.1.4	9.2.1.4 Where Unbundled Loops at a DS-3 capacity are available, Qwest is not	*See* Qwest position set forth above relating to § 4.0	9.2.1.4 Where Unbundled Loops at a DS-3 capacity are available, Qwest is not	See above.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
Unified Agreement – 271 Elements Included	required to provide, and CLEC shall not submit orders for, more than two (2) Unbundled Loops at a DS3 capacity for any single End User Customer location.	Definition of "Unbundled Network Elements."	required to provide pursuant to Section 251 of the Act, and CLEC shall not submit orders for, more than two (2) Unbundled Loops at a DS3 capacity for any single End User Customer location. Notwithstanding the above, CLEC may request such additional loops pursuant to Section 271 of the Act or applicable state law, and will be charged rates for such additional loops in accordance with Section 9.1.1.7 above.	
Issue 2 9.3.1.1 Unified Agreement – 271 Elements	9.3.1.1 An Unbundled Subloop is defined as the distribution portion of a copper Loop or hybrid Loop comprised entirely of copper wire or copper cable that acts as a transmission	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements".	9.3.1.1 An Unbundled Subloop is defined as the distribution portion of a copper Loop or hybrid Loop comprised entirely of copper wire or copper cable that acts as a transmission	See above.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
Included	facility between any point that it is Technically Feasible to access at terminals in Qwest's outside plant (originating outside of the Central Office), including inside wire owned or controlled by Qwest, and terminates at the End User Customer's premises. An accessible terminal is any point on the Loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within. Such points may include, but are not limited to, the pole, pedestal, Network Interface Device, minimum point of entry,	In addition, in the *TRO*, after careful consideration of the standards set forth in Section 251(d)(2) and the policies reflected in the Act, the FCC determined that ILECs are not required to provide unbundled access to fiber subloops.[1] Notwithstanding this unequivocal ruling, Covad's proposal would require Qwest to provide access to these facilities. This demand incorrectly assumes that state	facility between any point that it is Technically Feasible to access at terminals in Qwest's outside plant (originating outside of the Central Office), including inside wire owned or controlled by Qwest, and terminates at the End User Customer's premises. An accessible terminal is any point on the Loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within. Such points may include, but are not limited to, the pole, pedestal, Network Interface Device, minimum point of	

[1] *Triennial Review Order* at ¶ 253.

[2] *Id.*

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	single point of Interconnection, Remote Terminal, Feeder Distribution Interface (FDI), or Serving Area Interface (SAI). CLEC shall not have access on an unbundled basis to a feeder subloop defined as facilities extending from the Central Office to a terminal that is not at the End User Customer's premises or multiple tenant environment (MTE). CLEC shall have access to the feeder facilities only to the extent it is part of a complete transmission path, not a subloop, between the Central Office and the End User Customer's premises or MTE. This	commissions have authority to require unbundling under Section 271 and can impose unbundling requirements under Section 271 and state law that the FCC has specifically rejected. In ruling that ILECs are not required to unbundle feeder subloops, the FCC found that an unbundling requirement for these facilities would undermine the objective of Section	entry, single point of Interconnection, Remote Terminal, Feeder Distribution Interface (FDI), or Serving Area Interface (SAI). CLEC shall not have access on an unbundled basis, pursuant to Section 251 of the Act, to a feeder subloop defined as facilities extending from the Central Office to a terminal that is not at the End User Customer's premises or multiple tenant environment (MTE). CLEC shall have access , pursuant to Section 251 of the Act, to the feeder facilities only to the extent it is part of a complete transmission	

[3] *Id.*

[4] *Id.*

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	section does not address Dark Fiber Subloop which is addressed in Section 9.7.	706 of the Act "to spur deployment of advanced telecommunications capability."[2] The FCC recognized that access to ILECs' fiber feeder may be necessary for CLECs to obtain access to unbundled copper subloops, but it nevertheless did not require feeder unbundling. Instead, it encouraged carriers to negotiate arrangements for obtaining access to copper subloops, stating it "expect[s] that incumbent LECs will develop wholesale service offerings for access to their fiber feeder to ensure that	path, not a subloop, between the Central Office and the End User Customer's premises or MTE. Notwithstanding the limitations on subloop unbundling pursuant to Section 251 of the Act described above, Qwest will make remaining feeder subloops available as required by Section 271 of the Act and other Applicable Law. This section does not address Dark Fiber Subloop which is addressed in Section 9.7.	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		competitive LECs have access to copper subloops."[3] Importantly, and consistent with its ruling that ILECs are not required to unbundle feeder subloops, the FCC emphasized that "the terms and conditions of such access would be subject to sections 201 and 202 of the Act."[4] Accordingly, Covad's demand for unbundled access to feeder subloops must be rejected. Specifically, as discussed, state commissions are without authority to impose any		

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		unbundling or other obligations under Section 271; Covad's request that this Commission require feeder subloop unbundling under that section assumes authority that does not exist. In addition, any attempt to impose feeder subloop unbundling under state law would be preempted by the FCC's clearly expressed finding that unbundling this network element would undermine the federal law and policy reflected in Section 706.		
Issue 2	9.3.1.2 Standard Subloops available.	*See* Qwest position set forth above	9.3.1.2. Standard Subloops available.	See above.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
9.3.1.2 Unified Agreement – 271 Elements Included	b) Intentionally Left Blank	relating to section § 9.3.1.1.	b) DS1 Capable Unbundled Feeder Loop	
Issue 2 9.3.2.2 9.3.2.2.1 Unified Agreement – 271 Elements Included	9.3.2.2 Intentionally Left Blank 9.3.2.2.1 Intentionally Left Blank	*See* Qwest position set forth above relating to § 9.3.1.1.	9.3.2.2 Feeder Loops 9.3.2.2.1 DS1 Capable Unbundled Feeder Loop is a digital transmission path that is provisioned from a Qwest Central Office network interface, which consists of a DSX-1 panel or equivalent, to the accessible terminal. The DS1 Capable Unbundled Feeder Loop transports bi-directional DS1 signals with a nominal transmission rate of 1.544 Mbit/s.	See above.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
Issue 2 9.6 (g) Unified Agreement – 271 Elements Included	9.6 Unbundled Dedicated Interoffice Transport (UDIT) g) UDIT on routes where the Commission has found no CLEC impairment.	*See* Qwest position set forth above at relating to § 4.0 Definition of "Unbundled Network Elements."	9.6 Unbundled Dedicated Interoffice Transport (UDIT) g) UDIT on routes where the Commission has found no CLEC impairment <u>under Section 251 of the Act; provided that, if the Commission has determined that access is nonetheless required under Section 271 of the Act or applicable state law, then Qwest shall continue to provide UDIT on those routes.</u>	
Issue 2 9.6.1.5 Unified Agreement – 271 Elements Included	9.6.1.5 In the event the Commission determines that requesting Telecommunications Carriers are not impaired without access to dedicated DS3 transport along a particular route, Qwest will	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements."	9.6.1.5 In the event the Commission determines that requesting Telecommunications Carriers are not impaired without access to dedicated DS3 transport along a particular route, Qwest will	Notwithstanding any finding of non-impairment, existing UNEs must nevertheless be made available pursuant to Section 271 and state law.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	not provide, and CLEC shall not submit orders for, DS3 UDIT channels along such route(s). Qwest will maintain on its website a listing of routes for which the Commission has so found. In the event CLEC has DS3 UDIT transport in service along such a route that pre-exists the Commission determination, CLEC shall make arrangements for the service. If such alternative arrangements are not in place within sixty (60) Days of the effective date of the Commission determination, Qwest may bill for such transport in accordance with the Qwest Special Access Tariff.		not provide, and CLEC shall not submit orders for, DS3 UDIT channels along such route(s); provided that, if the Commission has determined that access is nonetheless required under Section 271 of the Act or applicable state law, then Qwest shall continue to provide UDIT on those routes.	The Agreement should create an orderly process for the movement of UNEs from one category to another, rather than create uncertainty as to whether 271 or state law obligations apply.
Issue 2 9.6.1.5.1	9.6.1.5.1 Qwest will maintain on its website a listing of routes for which the Commission has so found.	*See* Qwest position set forth above relating to § 4.0 Definition of	9.6.1.5.1 Qwest will maintain on its website a listing of routes for which the Commission has found	Notwithstanding any finding of non-impairment, existing UNEs must

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
Unified Agreement – 271 Elements Included	In the event CLEC has DS3 UDIT transport in service along such a route that pre-exists the Commission determination, CLEC shall make arrangements for other service. If such alternative arrangements are not in place within sixty (60) Days of the effective date of the Commission determination, Qwest may bill for such transport in accordance with the Qwest Special Access Tariff.	"Unbundled Network Elements."	no impairment under Section 251 and also has not required access under Section 271 or applicable state law. In the event CLEC has DS3 UDIT transport in service along such a route that pre-exists the Commission determination, CLEC shall make arrangements for other service. If such alternative arrangements are not in place within ~~sixty (60)~~ ninety (90) Days of the effective date of the Commission determination, Qwest may bill for such transport in accordance with the Qwest Special Access Tariff.	nevertheless be made available pursuant to Section 271 and state law. The Agreement should create an orderly process for the movement of UNEs from one category to another, rather than create uncertainty as to whether 271 or state law obligations apply.
Issue 2 9.6.1.6 Unified	9.6.1.6 In the event the Commission determines that requesting Telecommunications Carriers are not impaired	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network	9.6.1.6 In the event the Commission determines that requesting Telecommunications Carriers are not impaired	Notwithstanding any finding of non-impairment, existing UNEs must nevertheless be

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
Agreement – 271 Elements Included	without access to dedicated DS1 transport along a particular route, Qwest will not provide, and CLEC shall not submit orders for, DS1 UDIT channels along such route(s). Qwest will maintain on its website a listing of routes for which the Commission has so found. In the event CLEC has DS1 UDIT transport in service along such a route that pre-exists the Commission determination, CLEC shall make arrangements for other service. If such alternative arrangements are not in place within sixty (60) Days of the effective date of the Commission determination, Qwest may bill for such transport in accordance with the Qwest Special Access Tariff.	Elements."	without access to dedicated DS1 transport along a particular route, Qwest will not provide, and CLEC shall not submit orders for, DS1 UDIT channels along such route(s); provided that, if the Commission has determined that access is nonetheless required under Section 271 of the Act or applicable state law, then Qwest shall continue to provide UDIT on those routes. ~~Qwest will maintain on its website a listing of routes for which the Commission has so found. In the event CLEC has DS1 UDIT transport in service along such a route that pre-exists the Commission determination, CLEC shall make arrangements for other service. If such alternative arrangements are not in place within sixty~~	made available pursuant to Section 271 and state law. The Agreement should create an orderly process for the movement of UNEs from one category to another, rather than create uncertainty as to whether 271 or state law obligations apply.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
			~~(60) Days of the effective date of the Commission determination, Qwest may bill for such transport in accordance with the Qwest Special Access Tariff.~~	
Issue 2 9.6.1.6.1 Unified Agreement – 271 Elements Included	9.6.1.6.1 Qwest will maintain on its website a listing of routes for which the Commission has so found. In the event CLEC has DS1 UDIT transport in service along such a route that pre-exists the Commission determination, CLEC shall make arrangements for other service. If such alternative arrangements are not in place within sixty (60) Days of the effective date of the Commission determination, Qwest may bill for such transport in accordance with the Qwest Special Access Tariff	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements."	9.6.1.6.1 Qwest will maintain on its website a listing of routes for which the Commission has found no impairment under Section 251 and also has not required access under Section 271 or applicable state law. In the event CLEC has DS1 UDIT transport in service along such a route that pre-exists the Commission determination, CLEC shall make arrangements for other service. If such alternative arrangements are not in place within ~~sixty (60)~~ ninety (90) Days of the effective date of the	The list referenced by this section should only have relevance with respect to transport routes that are completely unavailable under applicable law, if any.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
			Commission determination, Qwest may bill for such transport in accordance with the Qwest Special Access Tariff.	
Issue 2 9.21.2 Unified Agreement – 271 Elements Included	9.21.2 Terms and Conditions On the effective date of a Commission determination that Qwest is no longer required to provide UNE-P Combination services in a market area Line Splitting is also not available in that market area to the extent CLEC has an embedded base of Line Splitting End User Customers on the effective date of the Commission determination, CLEC shall transition its embedded base of Line Splitting End User Customers in accordance with the Transition Timelines	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements."	9.21.2 Terms and Conditions ~~On the effective date of a Commission determination~~ If the Commission determines that Qwest is no longer required to provide UNE-P Combination services in a market area pursuant to Section 251 of the Act, CLEC shall not submit new orders for Line Splitting ~~is also not available in that market area~~ as of the date the Commission rules CLECs are no longer entitled to submit orders for unbundled switching. If, notwithstanding the Section	Notwithstanding any finding of non-impairment, existing UNEs must nevertheless be made available pursuant to Section 271 and state law. The Agreement should create an orderly process for the movement of UNEs from one category to another, rather than create uncertainty as to whether 271 or state law obligations apply.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	for unbundled switching, as described in Section 9.11.2.0.1. In such markets where Line Splitting is not available, Loop Splitting will continue to be available pursuant to Section 9.24 of this Agreement.		251 determination, Qwest is required to provide access to unbundled switching under Section 271 or applicable state law, then line splitting remains available in that market area. To the extent Qwest is no longer required to provide access to unbundled switching under any applicable law, and ~~T~~to the extent CLEC has an embedded base of Line Splitting End User Customers on the effective date of the Commission determination, CLEC shall transition its embedded base of Line Splitting End User Customers in accordance with the Transition Timelines for unbundled switching, as described in Section 9.11.2.0.1. In such markets where Line Splitting is not	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
			available, Loop Splitting will continue to be available pursuant to Section 9.24 of this Agreement.	
Issue 3 4.0 Definition ("251(c)(3) UNE", and "Commingling ") 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 Qwest, or the combination of an Unbundled Network Element, or a Combination of Unbundled Network Elements, with one or more such facilities or services.	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements." Further, under the FCC's *Interim Unbundling Rules*, parties are bound by the terms and conditions in interconnection agreements as of June 15, 2004 relating to access to enterprise market loops, dedicated transport, and switching. The existing Qwest/Covad agreement that was	"251(c)(3) UNE" means any unbundled network element obtained by CLEC pursuant to Section 251 of the Act. "Commingling" means the connecting, attaching, or otherwise linking of ~~an Unbundled Network Element,~~ 251(c)(3) UNE's or a Combination of ~~Unbundled Network Elements,~~ 251(c)(3) UNE's to one or more facilities or services that a requesting Telecommunications Carrier has obtained at wholesale from Qwest, pursuant to any method other than unbundling under Section 251(c)(3) of the Act, or the combination of an	Covad concedes that any commingling arrangement involves the attachment of a UNE obtained pursuant to Section 251(c)(3) with another product. The proposed revisions eliminate any confusion with respect to Qwest's obligations to commingle non-UNEs with UNEs available pursuant to Section 271 or state law.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		in effect as of June 15, 2004 does not provide for commingling and, hence, Covad's request for any commingling involving these elements is inconsistent with the *Interim Rules.* In addition, consistent with the rulings in the *TRO* relating to commingling, Qwest's proposed language establishes that Covad can obtain from Qwest UNEs and UNE combinations commingled with wholesale services and facilities, and	~~Unbundled Network Element,~~ a 251(c)(3) UNEor a Combination of ~~Unbundled Network Elements~~, 251(c)(3) UNE's with one or more such facilities or services.	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		that Covad can request Qwest to perform the functions to provision such commingling. Covad seeks to expand Qwest's commingling obligations beyond what the FCC has required by proposing language that would obligate Qwest to commingle UNEs and UNE combinations with network elements and services for which unbundling is not required under § 251 but that are provided under § 271. The *TRO* does not require commingling with		

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		elements and services provided under § 271. Moreover, Covad's language assumes incorrectly that state commissions have authority to determine obligations relating to § 271. As discussed above in connection with Issues 2 and 3, states have no decision-making authority under § 271 and therefore cannot order ILECs to provide or commingle § 271 elements or services. In addition, any obligations that Qwest has under § 271 are beyond		

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		the scope of this § 252 arbitration, which is expressly limited to issues involving Qwest's duties under §§ 251(b) and (c).		
Issue 3 9.1.1	*See* Issue 2.	*See* Qwest position set forth above relating to § 4.0 Definition of "Unbundled Network Elements".	*See* Issue 2.	See Covad position set forth above at page 4.
Issue 3 9.1.1.1 Commingling	9.1.1.1 This Agreement does not provide for the purchase and/or provision of resold telecommunications services with unbundled network elements provided pursuant to section 251(c)(3) of the Act, or for commingling of resale telecommunications services with other resale telecommunications services. At CLEC's	*See* Qwest position set forth above relating to § 4.0 Definition of "Commingling."	9.1.1.1 <u>Commingling - CLEC may commingle 251(c)(3) UNEs and combinations of 251(c)(3) UNEs with any other services obtained by any method other than unbundling under section 251(c)(3) of the Act, including switched and special access services offered pursuant to tariff</u>	See above.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	request, the parties will negotiate an amendment to this Agreement governing resale and the commingling of resold telecommunications pursuant to Applicable Law.		and resale. Qwest will perform the necessary functions to effectuate such commingling upon request. This Agreement does not provide for the purchase and/or provision of resold telecommunications services with unbundled network elements provided pursuant to section 251(c)(3) of the Act, or for commingling of resale telecommunications services with other resale telecommunications services. At CLEC's request, the parties will negotiate an amendment to this Agreement governing resale and the commingling of resold telecommunications pursuant to Applicable Law.	
Issue 5	8.2.1.23.1.4 CLEC is responsible for the	This issue involves the pricing and	8.2.1.23.1.4 CLEC is responsible for the end-to-	Even if Qwest is permitted to

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
8.2.1.23.1.4 Regeneration Requirements	end-to-end service design that uses ICDF Cross Connection to ensure that the resulting service meets its Customer's needs. This is accomplished by CLEC using the Design Layout Record (DLR) for the service connection. Regeneration may be required, depending on the distance parameters of the combination.	provisioning of CLEC-to-CLEC cross connections where regeneration is required. Pursuant to 47 C.F.R. 51.323(h), the FCC does not require Qwest to provision CLEC-to-CLEC cross-connections because Qwest permits collocating CLECs to interconnect with each other using their own facilities in a Qwest central office. Absent an obligation to provision a cross-connection, Qwest has no obligation to provide regeneration. Even though not required	end service design that uses ICDF Cross Connection to ensure that the resulting service meets its Customer's needs. This is accomplished by CLEC using the Design Layout Record (DLR) for the service connection. <u>Depending on the distance parameters of the combination, regeneration may be required. Qwest shall assess charges for CLEC to CLEC regeneration, if any, on the same terms and conditions, and at the same rates as ILEC to CLEC regeneration.</u>	implement a separate charge for regeneration in the future, such a charge must comply with section 251(c)(6) of the Act and should be offered on the same pricing, terms and conditions as ILEC-to-CLEC cross connections requiring regeneration.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		to do so, Qwest permits CLECs to provision their own connections, and if regeneration is required a CLEC may purchase an EICT under Qwest's FCC 1 Access Tariff. The EICT product is the end to end connection and includes any necessary regeneration. Covad claims that, Qwest's pricing for CLEC-to-CLEC connections should be the same as an ILEC to CLEC connection, because Qwest is in a position to maximize efficiencies for Covad's CLEC-to-		

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		CLEC connections. Qwest does not charge for regeneration if a CLEC is connecting to the Qwest network, therefore, Covad's proposal would have Qwest provide CLEC-to-CLEC regeneration free of charge. This argument fails because it is based on the fundamentally unreasonable and legally unsupportable notion that Qwest should have the obligation to maximize efficiencies for the benefit of Covad and its CLEC partners to the detriment of Qwest. Because Covad's		

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		regeneration proposal is squarely based on this flawed foundation, its CLEC-to-CLEC regeneration proposal is also unreasonable and should be rejected.		
Issue 5 8.3.1.9 Regeneration Requirements	8.3.1.9 Channel Regeneration Charge. Required when the distance from the leased physical space (for Caged or Cageless Physical Collocation) or from the collocated	See Qwest position set forth above at page 37 (§ 8.2.1.23.1.4)	8.3.1.9 <u>Channel Regeneration Charge. Required when the distance from CLEC's leased physical space (for Caged or Cageless Physical Collocation) or from the collocated equipment (for Virtual Collocation) to the Qwest network ("ILEC to CLEC regeneration"), to CLEC's non-contiguous Collocations space ("CLEC</u>	Qwest should not be permitted to charge non-TELRIC rates for central office cross connections requiring regeneration. The FCC has clarified that incumbent LECs have an obligation to provide collocation on non-discriminatory terms

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	equipment (for Virtual Collocation) to the Qwest network is of sufficient length to require regeneration. Channel Regeneration will not be charged separately for Interconnection between a Collocation space and Qwest's network or between non-contiguous Collocation spaces of the same CLEC. Qwest shall charge for regeneration requested as a		to CLEC regeneration"), or to the Collocation space of another CLEC ("CLEC to CLEC regeneration") is of sufficient length to require regeneration based on the ANSI Standard for cable distance limitations. Channel Regeneration Charges shall not apply until the Commission approves a wholesale Channel Regeneration Charge. After approval of such charge, Channel Regeneration Charges shall be assessed for ILEC to CLEC and CLEC to CLEC regeneration on the same terms and conditions, and at the same rates. If CLEC requests Channel Regeneration in spite of the fact that it is no required to meet ANSI standards,	pursuant to section 251(c)(6) of the Act, and specifically applied this standard to central office cross connections in the *Fourth Report and Order*. While Qwest may theoretically permit Covad to place their own cross connection, Qwest places restrictions on this self-provisioning that render it technically and financially impossible in many circumstances.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	part of CLEC-to-CLEC Cross Connections under the FCC Access No. 1 tariff, Section 21.5.2 (EICT).[5] Cable distance limitations are addressed in ANSI Standard T1.102-1993 "Digital Hierarchy – Electrical Interface; Annex B".		Qwest will provide such regeneration, and CLEC will pay the Channel Regneration Charge described herein.	
Issue 5	9.1.10 Intentionally left	See Qwest position set forth above	~~9.1.10 Channel Regeneration. Qwest's~~	Covad has proposed moving

[5] Ordered by the Washington Commission in Docket No. UT-043045, Order No. 04, (Synopsis ¶ 4, ¶ 86 and ¶ 87).

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
9.1.10 Regeneration Requirements	blank.	relating to § 8.2.1.23.1.4.	~~design will ensure the cable between the Qwest provided active elements and the DSX will meet the proper signal level requirements. Channel Regeneration will not be charged separately for Interconnection between a collocation space and Qwest's network. Cable distance limitations are addressed in ANSI Standard T1.102-1993 "Digital Hierarchy – Electrical Interface; Annex B".~~	this issue to a new Section 8.3.1.9, and specifying that Qwest will not charge for regeneration for interconnection between any central office equipment. This would create consistency among various collocation arrangements and comply with FCC rules regarding CLEC to CLEC cross connections.
Issue 8 5.4.1 Payment Due Date	5.4.1 Amounts payable under this Agreement are due and payable within thirty (30) calendar Days after the date of invoice, or within twenty (20) calendar Days after receipt of the invoice, whichever is later (payment due date). If the payment	Qwest proposes that undisputed amounts payable under the contract be due within 30 days from the date of the invoice. This 30-day period, which applies to all CLECs,	5.4.1 Amounts payable for any invoice containing (1) line splitting or loop splitting products, (2) a missing circuit ID, (3) a missing USOC, or (4) new rate elements, new services, or new features not previously ordered by CLEC	Covad believes its slightly longer time-frames are reasonable for the items enumerated in its proposed language, and balances the interests of the

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	due date is not a business day, the payment shall be due the next business day.	balances a CLEC's need for sufficient time to analyze monthly bills with Qwest's right to timely compensation for services rendered. The 30-day due date is the industry standard and, because Qwest offers its bills in a variety of electronic formats that are readily searchable, that period provides a reasonable amount of time for CLECs to review their bills. Covad's proposal that different services have different due dates and that certain due dates revert to a shorter time period after 12	(collectively "New Products") (hereinafter collectively referred to as "Exceptions") are due and payable within forty-five (45) calendar Days after the date of invoice, or within twenty (20) calendar Days after receipt of the invoice, whichever is later (payment due date) with respect to the New Products Exception, the forty-five (45) Day time period shall apply for twelve (12) months. After twelve (12) months' experience, such New Products shall be subject to the thirty (30) Day time frame hereinafter discussed. Any invoice that does not contain any of the above Exceptions are due and payable within thirty (30) calendar Days after the date of invoice, or within twenty calendar Days after	Parties. The review of wholesale invoices is a complicated task, which will become more complicated as line sharing/line splitting arrangements become more commonplace. If the time-frames for payment are unreasonably short, as Qwest proposes, Covad's ability to audit Qwest invoices will be compromised.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		months would create a systems and administrative nightmare, Furthermore, the parties' existing agreement – under which the parties have been operating since 1999 – provides that payments are due within 30 days from the invoice date. This issue was discussed at length during regional § 271 workshops, in which Covad actively participated, and ultimately was resolved with the Arizona SGAT language that specifies that amounts payable are due within 30 days	receipt of the invoice, whichever is later. If the payment due date is not a business day, the payment shall be due the next business day.	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
		from the invoice date. Finally, in the recent Commercial Line Sharing Agreement the parties agreed to a 30 day payment provision.		
Issue 8 5.4.2 Timing for Discontinuing Orders	5.4.2 One Party may discontinue processing orders for the failure of the other Party to make full payment for the relevant services, less any disputed amount as provided for in Section 5.4.4 of this Agreement, for the relevant services provided under this Agreement within thirty (30) calendar Days following the payment due date. The Billing Party will notify the other Party in writing at least ten (10) business days prior to discontinuing the processing of orders for the	Qwest is entitled to timely payment for services rendered and to take remedial action if the risk of nonpayment is apparent. Qwest's proposal provides Covad with 30 days before the billed amount is due and another 30 days before Qwest would discontinue processing orders if Covad failed to pay, thereby giving Covad 60 days from	5.4.2 One Party may discontinue processing orders for the failure of the other Party to make full payment for the relevant services, less any disputed amount as provided for in Section 5.4.4 of this Agreement, for the relevant services provided under this Agreement within ~~thirty (30)~~ sixty (60) calendar Days following the payment due date. The Billing Party will notify the other Party in writing at least ten (10) business days prior to discontinuing the	Discontinuing the processing of Covad's orders is a relatively drastic remedy. The additional time requested by Covad will avoid the need for additional agreements for payment arrangements, and will allow each party a reasonable amount of time to agree that certain amounts are disputed, or seek

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	relevant services. If the Billing Party does not refuse to accept additional orders for the relevant services on the date specified in the ten (10) business days notice, and the other Party's non-compliance continues, nothing contained herein shall preclude the Billing Party's right to refuse to accept additional orders for the relevant services from the non-complying Party without further notice. For order processing to resume, the billed Party will be required to make full payment of all charges for the relevant services not disputed in good faith under this Agreement. Additionally, the Billing Party may require a deposit (or additional deposit) from the billed Party, pursuant to this section. In addition to other	the bill date until Qwest would discontinue processing. Taken together, Covad's proposals would prevent Qwest from taking action in cases of non-payment until 105 days after the payment due date because Covad seeks 45 days until payment is due for certain services plus an additional 60 days before Qwest could stop processing orders. Allowing Covad to continue to incur debt for months before Qwest can take appropriate action to protect itself is	processing of orders for the relevant services. If the Billing Party does not refuse to accept additional orders for the relevant services on the date specified in the ten (10) business days notice, and the other Party's non-compliance continues, nothing contained herein shall preclude the Billing Party's right to refuse to accept additional orders for the relevant services from the non-complying Party without further notice. For order processing to resume, the billed Party will be required to make full payment of all charges for the relevant services not disputed in good faith under this Agreement. Additionally, the Billing Party may require a deposit (or additional deposit) from the billed Party, pursuant to	other remedies under the agreement to either receive payment or maintain the processing of orders. The extension of this time frame will not lead to a significant increase of risk for Qwest.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	remedies that may be available at law or equity, the billed Party reserves the right to seek equitable relief including injunctive relief and specific performance.	unreasonable. Again, this issue was discussed at length during the § 271 workshops, in which Covad actively participated, and which resulted in consensus language which provided for the 30 day period Qwest proposes here.	this section. In addition to other remedies that may be available at law or equity, the billed Party reserves the right to seek equitable relief including injunctive relief and specific performance	
Issue 8 5.4.3 Timing for Disconnecting Services	5.4.3 The Billing Party may disconnect any and all relevant services for failure by the billed Party to make full payment, less any disputed amount as provided for in Section 5.4.4 of this Agreement, for the relevant services provided under this Agreement within sixty (60) Calendar Days following the payment due date. The billed Party will pay the	Qwest is entitled to timely payment for services rendered and to take remedial action if risk of nonpayment is apparent. Qwest's proposal provides Covad with 30 days before the billed amount is due and another 60 days before Qwest would	5.4.3 The Billing Party may disconnect any and all relevant services for failure by the billed Party to make full payment, less any disputed amount as provided for in Section 5.4.4 of this Agreement, for the relevant services within <u>ninety (90)</u> calendar Days following the payment due date. The billed Party will pay the applicable	Covad's proposal affords 90 days after a payment is due until its services could be disconnected. Disconnection is a drastic remedy, and the impact that such disconnection will have on a CLECs' business, as well as innocent third party

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	applicable reconnect charge set forth in Exhibit A required to reconnect each resold End User Customer line disconnected pursuant to this paragraph. The Billing Party will notify the billed Party at least ten (10) business days prior to disconnection of the unpaid service(s). In case of such disconnection, all applicable undisputed charges, including termination charges, shall become due. If the Billing Party does not disconnect the billed Party's service(s) on the date specified in the ten (10) business days notice, and the billed Party's noncompliance continues, nothing contained herein shall preclude the Billing Party's right to disconnect any or all relevant services of the non-complying Party	disconnect service for nonpayment, thereby giving Covad 90 days before Qwest would disconnect the service. Taken together, Covad's proposals would prevent Qwest from taking action in cases of non-payment until 135 days after the payment due date because Covad seeks 45 days for certain services until payment is due plus an additional 90 days before Qwest could disconnect service. Allowing Covad to continue to incur debt for months before Qwest can take	reconnect charge set forth in Exhibit A required to reconnect each resold End User Customer line disconnected pursuant to this paragraph. The Billing Party will notify the billed Party at least ten (10) business days prior to disconnection of the unpaid service(s). In case of such disconnection, all applicable undisputed charges, including termination charges, shall become due. If the Billing Party does not disconnect the billed Party's service(s) on the date specified in the ten (10) business days notice, and the billed Party's noncompliance continues, nothing contained herein shall preclude the Billing Party's right to disconnect any or all relevant services of the non-complying Party	subscribers, should be balanced against Qwest's right to receive payment in full for services provided. The difference between the Parties' proposals (60 days) ensures that disconnection is never used as leverage in a billing dispute, and the increased risk of nonpayment for Qwest is relatively small.

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	without further notice. For reconnection of the non-paid service to occur, the billed Party will be required to make full payment of all past and current undisputed charges under this Agreement for the relevant services. Additionally, the Billing Party will request a deposit (or recalculate the deposit) as specified in Section 5.4.5 and 5.4.7 from the billed Party, pursuant to this Section. Both Parties agree, however, that the application of this provision will be suspended for the initial three (3) Billing cycles of this Agreement and will not apply to amounts billed during those three (3) cycles. In addition to other remedies that may be available at law or equity, each Party reserves the right to seek equitable relief, including	appropriate action to protect itself is unreasonable. Again, this issue was discussed at length during the § 271 workshops, in which Covad actively participated, and which resulted in consensus language which provided for the 60 day period Qwest proposes here.	without further notice. For reconnection of the non-paid service to occur, the billed Party will be required to make full payment of all past and current undisputed charges under this Agreement for the relevant services. Additionally, the Billing Party will request a deposit (or recalculate the deposit) as specified in Section 5.4.5 and 5.4.7 from the billed Party, pursuant to this Section. Both Parties agree, however, that the application of this provision will be suspended for the initial three (3) Billing cycles of this Agreement and will not apply to amounts billed during those three (3) cycles. In addition to other remedies that may be available at law or equity, each Party reserves the	

Issue Number/ ICA Section or Attachment Number/ Statement of Issue	Qwest Proposed Language	Qwest Position	Covad Proposed Language	Covad Position
	injunctive relief and specific performance.		right to seek equitable relief, including injunctive relief and specific performance.	

EXHIBIT
C-20
admitted

Qwest

Spirit of Service

BillMate® Billing Diskette/CD-ROM Customer Guide

RELEASE 2.01

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Files

FILE DESCRIPTIONS

The following is a list of the various diskette files and a description of their data contents:

FILENAME	DESCRIPTION
800SLINE.DET	Contains detail records associated with 800 SERVICELINE.
ADJUST.DET	Contains detail records of different types of adjustments for an account.
AIRTIME.DET	Contains detail records of airtime, wireless and cellular telephone services.
DELIVSVC.DET	Contains detail records of charges associated with Delivery Services (976
DIRADV.DET	Contains detail records of charges associated with directory advertising.
DISCOUNT.DET	Contains discount information on specific Qwest products.
INFO.DET	Contains detail records of inquiry telephone numbers for each service provider that has billed charges.
LDMISC.DET	Contains detail records of miscellaneous long distance charges related to unique types of Directory Assistance.
LOCUSAGE.DET	Contains detail records associated with local usage, interconnect, and ISDN packages.
MEASSVC.DET	Contains detail records associated with measured usage and measured ISDN services.
MISCCHRG.DET	Contains detail records of miscellaneous charges including directory assistance requests, generic debits and credits, SWITCHNET charges, installment billing and other miscellaneous charges.
MISCCP.DET	Contains detail records of messages associated with Qwest miscellaneous calling plans.
MONSERV.DET	Contains detail records of each telephone service (USOC) that has been billed as part of the monthly service charge.

(File Descriptions, cont.)

FILENAME	DESCRIPTION
PAYMENT.DET	Contains detail records of payments made to the account.
PRODUSG.DET	Contains information about the usage product charges.
ROAMING.DET	Contains detail records of roaming charges used with wireless phone calls and charges used with mobile phones.
TOLL.DET	Contains detail records of long distance messages (TOLL).
WATS.DET	Contains detail records associated with WATS services billed.
ACCOUNT.SUM	Contains summary records of all current telephone charges for an account.
ACTIVITY.SUM	Contains account activity such as prior month's activity as well as current charges and amount due.
SUBACCT-SUM	Contains summary records of total billed charges for each individual sub account within a summary billed account.
TAX.SUM	Contains summary records of tax amounts billed for all taxable services.
TOLLINE.SUM	Contains summary records of long distance charges (TOLL) that are charged to each individual telephone number.

MONSERV.DET

FILE: MONSERV.DET
DESC: Monthly Service (USOC) Detail
DATE: 03-07-98

GENERAL NOTES:

This record contains the detail of monthly rated telephone services billed to the account. Each record contains information including USOC, USOC description, quantity, item rate and monthly rate.

#	C	FORMAT		CONTENTS
1	(A)	A	17	The billing or WATS service account number.
2	(B)	A	8	The current billing date (MMDDYYYY).
3	(C)	A	4	The code that identifies the applicable service provider for the information within this record. Refer to the service provider reference list for code translations.
4	(D)	A	6	The designated department code for this record.
5	(E)	A	10	The working telephone number for this record.
[6	(F)	A	36	The summary billing circuit identification.]
7	(G)	N	8	The From (originating) date (MMDDYYYY).
8	(H)	N	8	The To (terminating) date (MMDDYYYY).
9	(I)	N	7	The monthly service USOC quantity.
10	(J)	A	5	The monthly service USOC.
11	(K)	A	27	The text description of the item of service - Part 1.
12	(L)	A	27	The text description of the item of service - Part 2.
13	(M)	A	13	The rating type description.
14	(N)	SN	9/2	The monthly rate of the item of service that has been used in the calculation.

MONSERV.DET (cont.)

#	C	FORMAT		CONTENTS
15	(O)	A	14	Discount description.
16	(P)	SN	9/2	The calculated total monthly rate for the item of service.
17	(Q)	SN	9/2	The discounted rate that is applied to the customer.
18	(R)	SN	9/2	The discounted amount.

Example

FILE: MONSERV.DET
DESC: Monthly Service (USOC) Detail
DATE: 03-07-98

#1 Service account
#2 Bill date
#3 Communications company code
#4 Department code
#5 Originating number

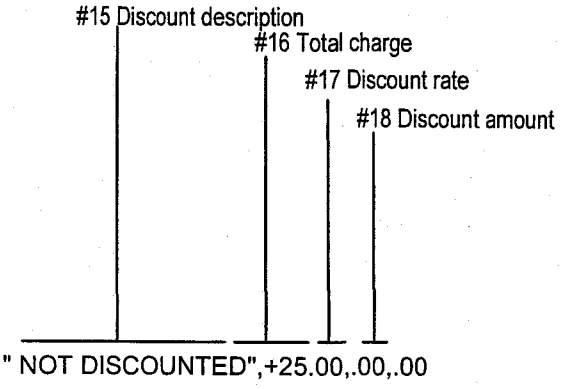
"2065551212","03251998","1000","000001","2065551122",

(record continued below)

#6 Circiut identification
#7 From date
#8Through date
#9 Quantity
#10 USOC code
#11 Text description - part 1
#12 Text description - part 2
#13 Type of rating
#14 Monthly rate

" ","03251998","05251998",2,"1MXCD","USOC Desc"," ","Item Rating",+12.50,

(record continued below)


#15 Discount description
#16 Total charge
#17 Discount rate
#18 Discount amount
" NOT DISCOUNTED",+25.00,.00,.00

Covad-21

Open System Change Requests -- Detail

Report Record # 1

CR #	Title	Status Date	Level of Effort	Interface Release #	Products Impacted
SCR100104-01	Provide Circuit ID on Billing Outputs for the Shared Loop Family of Products	Denied 12/6/2004		Wholesale Billing Interfaces	UNE, Line Sharing, Line Splitting, Loop Splitting

Originator: Berard, John **Originator Company Name:** Covad

Director: Winston, Connie
Owner: Winston, Connie
CR PM: Esquibel-Reed, Peggy

EXHIBIT
C-21
admitted

Description Of Change

Covad requests the circuit id be provided on billing output files such that CLECs can accurately reconcile billing from Qwest. Covad believes Qwest houses the circuit ID but does not pass that information on its billing records. The BTN provided is not sufficient enough for Covad to validate the bills, thus the request for this additional information.

Expected Deliverable:
That Qwest extract the circuit id and provides on all shared loop billing outputs/As soon as possible.

Status History:

Date	Action	Description
10/1/2004	CR Submitted	
10/5/2004	CR Acknowledged	
10/5/2004	Info Requested from CLEC	Email Sent to Covad Requesting Clarification Meeting Availability
10/6/2004	Info Received From CLEC	Received Covad's Availability for Clarification Call
10/6/2004	Clarification Meeting Scheduled	Clarification Meeting Scheduled for October 14, 2004, based on Covad's Availability.
10/19/200	Clarification Meeting Held	See Project Meetings Section for Meeting Minutes
10/20/200	Discussed at Monthly CMP Meeting	Discussed at the October Systems CMP Monthly Meeting; please see the October Systems CMP Distribution Package, Attachment B
11/17/200	Discussed at Monthly CMP Meeting	Discussed at the November Systems CMP Monthly Meeting; please see the November Systems CMP Distribution Package, Attachment I
12/15/200	Discussed at Monthly CMP Meeting	Discussed at the December Systems CMP Monthly Meeting; please see the December Systems CMP Distribution Package, Attachment G

Project Meetings

December 15, 2004 Systems CMP Meeting Discussion:
Connie Winston/Qwest stated that Qwest was asked to explain the cost. Connie stated that when the service order goes to the billing system, the circuit information is in a free flow section and is posted as meaningless data. Connie stated that there are several systems impacted and that a field would need to be created; it would need to be recognized and passed on to the bill output. Connie noted that is what needs to happen just to set it up. Connie stated that there is also the issue with the imbedded base and how to pass text and get it in a formatted field. Connie stated that the front-end and service order billing systems were never asked to retain the information due to the cost and the fact that the information was not necessary.
Liz Balvin/Covad asked if the denial was in the CR.
Connie Winston/Qwest stated yes.
Liz Balvin/Covad asked that the detail that Connie just shared be in the CR. Liz stated that she needs to understand why the cost is so high.
Connie Winston/Qwest stated that the information would be added to the response.
(Changes to meeting minutes 12/28/04 from Covad) Liz Balvin/Covad stated that the denial is confusing and needs to see the elaborated response in writing. Liz stated that the TN based circuit id is on the FOC and is captured in a fielded format. Liz stated that Unbundled Loop orders do bill by circuit id in the ECCKT field so she does not understand why it cannot be passed to the billing system.
Connie Winston/Qwest stated it is because it is $900,000 of work.
(Changes to meeting minutes 12/28/04 from Covad) Liz Balvin/Covad stated that the FOC provides the information in the ECCKT Field of the FOC and that the billing system is fielded for the ECCKT information. Liz stated that she needs to see if the additional information on the cost and until then she cannot accept the denial.
Crystal Soderlund/Qwest stated that for Line Splitting, there is one customer of record and all billing is on one CSR. Crystal stated that for Line Sharing, we are dealing with 2 CSRs. Crystal stated that 2 CSRs are needed in order for billing to remain anonymous to the End User and noted that some of the fields cannot be put on the end user's account. Crystal stated that the cost is to combine the data from 2 separate customer's CSR's for CRIS billing.
Liz Balvin/Covad stated that she needs the detail in writing in order to determine if Qwest assessment is appropriate.
Connie Winston/Qwest stated that she would do.

Liz Balvin/Covad stated that Qwest should have her email with her questions.
Jill Martain/Qwest stated that Qwest does have the email and stated that the denial would be revised.
There were no additional questions or comments.

December 10, 2004 Email Received from Liz Balvin, Covad:
Peggy,
Covad requests the detailed intended changes noted by Qwest that drove the cost estimate to 900K which resulted in a denial.
Covad questions the economical infeasibility based on the following facts:
1) The shared loop orders are provided for on the Loop Service Form (as are other circuit id format driven orders)
2) Qwest provides the TN formatted circuit ID on the FOC but simply doesn't pass that information to the back-end billing system
3) The billing system today accommodates the circuit id of which Qwest has identified four types (NOTE all fall within the required a/n character field length for circuit id):

A) Serial Number Format
- Prefix: 1-2 alphanumeric characters. This is an optional field.
- Service code & Modifier: 2-4 alphabetic characters (usually 4). This is a required field.
- Serial Number: 1-6 digits. This is a required field.
- Suffix: 3 character suffix to the serial number may be required (rarely used).
- CO (Company) Code: 2-4 alphabetic characters (usually NW, MS, or PN). This is a required field.
- Segment: 1-3 alphanumeric characters. optional for non-multi-point circuits. multi-point segments map to Circuit End Location, e.g. CLK1 = A, CLK2 = B.

A Billing Telephone Number (BTN) cannot be used for opening a Trouble Report. The Serial Number Circuit Format must be used.

B) Telephone Number Format
- Prefix: alphanumeric characters. required if it exists (not all telephone number circuits have a prefix)
- Service Code & Modifier: 2-4 alphabetic characters (usually 4); This is a required field.
- NPA: 3 digits. This is a required field.
- NXX: 3 digits. This is a required field.
- Line: 4 digits. This is a required field.
- Extension: 1-5 alphanumeric characters. This is an optional field.

For states: AZ, CO, ID, MT, NM, UT, WY, alphas not accepted; convert D1 to 0001, D2 to 0002, etc.
- Segment: 1-3 alphanumeric characters. This is an optional field. rarely used

C) Carrier Facility Format
- Channel Group Number: 1-5 alphanumeric characters. This is a required field.
- Facility Type: 1-6 alphanumeric characters. This is a required field. Examples: T1, T1F, T1U, T1UZF, T1Z, T1ZF, T3
- 'A' CLLI Code: 8 or 11 alphanumeric characters. This is a required field.
- 'Z' CLLI Code: 8 or 11 alphanumeric characters. This is a required field.

All 4 of the above components are required

D) Message Trunk Format
- Trunk Number: 1-4 alphanumeric characters. This is a required field.
- Traffic Class: 1-2 alphanumeric characters. This is a required field. A hyphen may be allowed
- Office Class: 1-2 alphanumeric characters. This is a required field. A hyphen may be allowed

A separator is not used between the Traffic Class and Office Class
- Traffic Use Code: 2 alphanumeric characters. This is a required field. A hyphen may be allowed. No separator between Office class and Traffic Use Code
- Traffic Modifier: 1-7 alphanumeric characters. This is an optional field. No separator between Traffic Use Code and Traffic Modifier
- 'A' CLLI Code: 8 or 11 alphanumeric characters. This is a required field.
- Pulse & Direction: 2 alphanumeric characters. This is a required field.
- 'Z' CLLI Code: 8 or 11 alphanumeric characters. This is a required field.

December 6, 2004 Email Sent to john Bérard, Covad:
John,
Attached is a copy of SCR100104-01 Provide Circuit ID on Billing Outputs for the Shared Loop Family of Products. This attachment contains Qwest's response to the request.
Peggy Esquibel-Reed
Qwest CMP CRPM
Peggy.Esquibel-Reed@qwest.com

November 17, 2004 Systems CMP Meeting Discussion:
Jill Martain/Qwest stated that this CR is currently in Evaluation and that Qwest is looking at potential solutions.

October 20, 2004 Systems CMP Meeting Discussion:
Liz Balvin/Covad stated that the CR is for billing outputs for the Shared Line products. Liz stated that these are in the POTS flow and noted that Qwest validates on the AN Field. [Comment Received from Covad: Liz stated that these are in the POTS flow which as she understands means Qwest validates on the AN Field instead of the circuit id field.

Susie Bliss/Qwest stated that she believes that is per the request of the CLECs.
Liz Balvin/Covad stated that Qwest is the only ILEC that is tracking the Shared Line products using the BTN. Liz stated that Covad tracks to the circuit id. Liz stated that the bill reflects the Qwest BTN and is not the WTN that was on the order. Liz stated that this causes Covad to be out-of-synch for bill validation. Liz stated that if Qwest houses the circuit id, that it be placed on the bill. [Comment Received from Covad: Liz stated that the bill reflects the Qwest BTN which may or may not be the WTN that was on the order plus the addition of the unique customer code provided only adds additional out-of-synch conditions from order to bill validation. Liz stated that if Qwest houses the circuit id anywhere in their back-end systems, that Covad requests it be placed on the bill.]
There were no other comments or questions.
Jill Martain/Qwest stated that this CR will move into Presented Status.

October 14, 2004 Clarification Meeting

Attendees:
John Berard (Covad)
Liz Balvin (Covad)
Peggy Esquibel-Reed (Qwest)
Brenda Kerr (Qwest)
Alan Zimmerman (Qwest)
Wendy Thurnau (Qwest)

Review Requested (Description of) Change:
Peggy Esquibel-Reed (Qwest) reviewed that Covad requests the circuit id be provided on billing output files such that CLECs can accurately reconcile billing from Qwest. Covad believes Qwest houses the circuit ID but does not pass that information on its billing records. The BTN provided is not sufficient enough for Covad to validate the bills, thus the request for this additional information. Peggy stated that the Expected Deliverable is that Qwest extract the circuit id and provides on all shared loop billing outputs/As soon as possible.

Obtain the Business Need from the CR Originator:
Peggy Esquibel-Reed (Qwest) asked if the business need that prompted this CR was for bill validation only.
John Berard (Covad) stated yes.

Confirmed Impacted Area(s):
Peggy Esquibel-Reed (Qwest) asked to confirm that this CR was for Maintenance & Repair and Provisioning.
John Berard (Covad) responded yes.

Confirmed Impacted Interfaces:
Peggy Esquibel-Reed (Qwest) asked to confirm that this CR was submitted for changes to Wholesale Billing.
John Berard (Covad) stated yes.

Obtain Specific Billing Output Files:
Peggy Esquibel-Reed (Qwest) asked for which specific Billing Output Files that this request was to include.
Liz Balvin (Covad) asked why the question was being asked.
Peggy Esquibel-Reed (Qwest) stated that Qwest needs to obtain as much information as we can during the Clarification Call in order to ensure that the request is fully understood and to prevent problems/issues from occurring in the future regarding the implementation of the request. Peggy asked Covad to please identify the Billing Output Files that Covad is requesting that this CR accommodate. Peggy listed the files of ASCII, Paper, EDI, BOS/BDT, and/or Billmate.
John Berard (Covad) stated that he believed that Covad received BOS/BDT files and stated that he would need to confirm.
Alan Zimmerman (Qwest) stated that Covad may be receiving Billmate or ASCII files.
John Berard (Covad) stated that he would check and confirm.

Confirmed Impacted Products:
Peggy Esquibel-Reed (Qwest) asked to confirm that this CR is only for the Products listed on the CR: UNE, Line Sharing, Line Splitting, and Loop Splitting.
John Berard (Covad) stated yes.

Additional Discussion Regarding the CR:
Peggy Esquibel-Reed (Qwest) asked Covad if they had additional information regarding the request.
Covad stated that there was no additional information to add.
Alan Zimmerman (Qwest) stated that currently these are in the POTS flow, not the design flow and that there is no circuit id in the POTS flow. Alan asked if Covad's intent was to move to the design flow.
John Berard (Covad) responded no and indicated that he has seen EDI output in a circuit id format, containing alpha's and numerics. John stated that Qwest may just not call it a circuit id but that is what Covad is looking for.
Liz Balvin (Covad) asked Qwest to define a design flow.
Alan Zimmerman (Qwest) stated that the circuit ids would be obtained from LFACS and is TN based inventory; that is the design flow.
Alan Zimmerman (Qwest) stated that currently the FOC has a circuit id with the TN format.
Liz Balvin (Covad) stated that there is a circuit id on the FOC but what Covad needs captured on the bill is the circuit that is provisioned. Liz stated that is the true validation step. Liz noted that the BTN is the AN plus the customer code. Liz stated that she has seen examples where the TN is not equivalent to what is sent on the orders, on the Loop Order Form.
Alan Zimmerman (Qwest) stated that in the design flow the circuit id would be important but in the POTS flow it is not important and is not retained anywhere.
Liz Balvin (Covad) provided 2 examples that provided circuit ids. Liz provided PONs, BTNs, and circuit id's received.

Open System Change Requests -- Detail

Liz Balvin (Covad) stated that Covad does not want to move to the design flow, she realizes that it would be a huge effort.
Liz Balvin (Covad) stated that if Qwest has the circuit id, Covad would like it on the billing output.
Alan Zimmerman (Qwest) asked if Covad did not have the account numbers and stated that the BTNs are included in the FOCs.
Liz Balvin (Covad) stated that she has the AN plus the customer code.
Alan Zimmerman (Qwest) asked how that information could not be used for bill validation.
Liz Balvin (Covad) stated that for every other ILEC, they validate by the circuit id. Liz stated that Covad would like Qwest to be consistent with the other RBOCs as Covad would have to make coding changes in order to accommodate the BTN. Liz stated that Covad does not provide the customer code, that Qwest provides it and Covad strips it off.
Alan Zimmerman (Qwest) asked if that is difficult for Covad to do.
Liz Balvin (Covad) stated that it would be a significant change since all the other RBOCs go by the circuit id.
Alan Zimmerman (Qwest) stated that Qwest understands the request and stated that Qwest would review the request.
Peggy Esquibel-Reed (Qwest) asked if there any other comments or questions.
There were no additional questions or comments.

Establish Action Plan & Resolution Time Frame:
Peggy Esquibel-Reed (Qwest) stated that this CR is due for presentation at the October 20, 2004 Systems CMP Meeting and that Qwest would provide the response/status in November 2004.

Qwest Response

REVISED RESPONSE

January 10, 2005

To: John Berard
Covad
CC: Jill Martain, Connie Winston, Peggy Esquibel-Reed
RE: SCR100104-01 Provide Circuit ID on Billing Outputs for the Shared Loop Family of Products

SCR Description:
Covad requests the circuit id be provided on billing output files such that CLEC's can accurately reconcile billing from Qwest. Covad believes Qwest houses the circuit ID, but does not pass that information on its billing records. The BTN provided is not sufficient enough for Covad to validate the bills, thus the request for this additional information.

Expected Deliverable: That Qwest extract the circuit id and provide it on all shared loop billing outputs as soon as possible.

History:
A clarification meeting was held on October 14, 2004 with Covad and Qwest representation. At this meeting the request was reviewed and no further questions were required.

Revised Qwest Response:
Below is a high level itemization of the LOE for this request. The complexity and cost for this request spans multiple systems from ordering through billing. The Shared Loop circuit id is not currently housed in the ordering or billing systems, thus several systems would require changes in order to create a field for the circuit id, recognize, retain and pass the circuit id information through to the bill output.

In addition to the changes to implement this new functionality, the existing accounts would have to be converted to support the enhancements to the circuit ID. This conversion would require extracting the circuit id from a free flow text to populate the newly created shared loop circuit id field. Additional modifications would have to be made to address the issue that in order for the new circuit id to appear on the CRIS billing account, both the end user and the Line Share billing Customer Service Records will need to be involved.

Process changes for this request would include changes to the media procedures, changes to PCAT documentation, and re-training of Center personnel for bill validation via the electronic media.

Consequently, Qwest is respectfully denying your request for SCR100104-01, due to economic infeasibility.

Cost Summary:

Changes to Ordering Systems	$ 25,500
Changes to Billing Systems	828,500
Process Changes	50,000
TOTAL	$904,000

Sincerely,
Qwest

Revised Response
December 6, 2004

To: John Berard
Covad

Open System Change Requests -- Detail

CC: Jill Martain, Peggy Esquibel-Reed, Connie Winston

RE: SCR100104-01 Provide Circuit ID on Billing Outputs for the Shared Loop Family of Products

SCR Description:
Covad requests the circuit id be provided on billing output files such that CLEC's can accurately reconcile billing from Qwest. Covad believes Qwest houses the circuit ID, but does not pass that information on its billing records. The BTN provided is not sufficient enough for Covad to validate the bills, thus the request for this additional information.

Expected Deliverable: That Qwest extract the circuit id and provide it on all shared loop billing outputs as soon as possible.

History:
A clarification meeting was held on October 14, 2004 with Covad and Qwest representation. At this meeting the request was reviewed and no further questions were required.

Qwest Response:
Below is a high level itemization of the LOE for this request. The complexity and cost for this request spans multiple systems from ordering through billing. In addition to the changes to implement this new functionality, the existing accounts would have to be converted to support the enhancements to the circuit ID.

Consequently, Qwest is respectfully denying your request for SCR100104-01, due to economic infeasibility.

Cost Summary:

Changes to Ordering Systems	$ 25,500
Changes to Billing Systems	828,500
Process Changes	50,000
TOTAL	$904,000

Qwest

DRAFT RESPONSE

November 5, 2004

RE: SCR100104-01 Provide Circuit ID on Billing Outputs for the Shared Loop Family of Products

Qwest has reviewed the information submitted as part of Change Request SCR100104-01. Based upon research that has been conducted following the Clarification Meeting (held October 14, 2004) and the October 20, 2004 Systems CMP Meeting Qwest is still examining the issue. Qwest will continue to research the problem and provide an updated response at the December Systems CMP Meeting.

Sincerely,
Qwest

Exhibit B

Notice of Network Change – Chamblee, Georgia
Replacing Copper Feeder Facilities with Fiber and Digital Loop Carrier Systems

Carrier
BellSouth Telecommunications, Inc.
675 West Peachtree Street NE
Atlanta, Georgia 30375

Date Changes are to Occur: January 15, 2004

Location of Changes: Ashford Dunwoody Rd between W Nancy Creek Rd and Harts Mill Rd affecting cross connect interfaces at 1400 West Nancy Creek Rd and 1336 Rustic Ridge Dr

Description of Change Planned: Copper Feeder Facilities will be replaced with Fiber Optic cable and Digital Loop Carrier systems.

Description of Reasonably Foreseeable Impact of the Planned Change: After this work is completed, metallic facilities from the Central Office to the affected area will no longer be available. Unbundled loops that are defined as compatible with Digital Loop Carrier (DLC), e.g., those defined to transport POTS-grade service, will be transferred to the new DLC system. Competitive carriers employing unbundled loops that are defined to require metallic facilities, e.g., Digital Subscriber Line (DSL) or line sharing circuits, will be notified individually. This notification is intended to allow the affected carrier to convert the circuit to one compatible with DLC.

It should be noted that if a competitive carrier obtains an unbundled loop that has been defined to transport POTS-grade service, but then utilizes the POTS-grade loop to provide DSL service, BellSouth has no knowledge of the presence of DSL. In such a case, BellSouth has no basis to notify the carrier and there will be no means to continue the DSL service.

Contact: Technical questions relating to this change should be directed to:
Jerry Gibson
Rm 211, 2310 Parklake Dr
Atlanta, Ga. 30345-2904
770-493-2007

All other questions or concerns regarding this change should be referred to your BellSouth account team representative, the Interexchange Carrier Service Center (ICSC) or the Local Interconnection Service Center (LISC). Payphone Service Providers should contact the following numbers with questions or concerns:

In the BellSouth region: 557-2647 (AL, KY, LA, MS, TN) or
780-2171 (FL, GA, NC, SC)
(If you are calling from a mandatory 10-digit calling area, include your local area code.)

Outside BellSouth region: 1-800-786-7619
Fax: 1-205-321-2191

EXHIBIT
Quest-1
Admitted

Short Term Notice of Network Change Under Rule 51.333(a)
Notification No. 20030229
Issue Date: November 19, 2003

ADDRESS LIST

Below is a list of addresses that may be impacted by a conversion from copper-fed to fiber-fed carrier for wirecenter "chmbgama" sorted by hno and street.

hno	st	unit	bldg
4030	ashford dunwoody rd ne		
4035	ashford dunwoody rd ne		
4040	ashford dunwoody rd ne	1515	
4047	ashford dunwoody rd ne		

ADDRESS LIST

Below is a list of addresses that may be impacted by a conversion from copper-fed to fiber-fed carrier for wirecenter "chmbgama" sorted by hno and street.

hno	st	unit	bldg
3830	ashford dunwoody rd ne		
3882	ashford dunwoody rd ne		
3889	ashford dunwoody rd ne		
3892	ashford dunwoody rd ne		
3900	ashford dunwoody rd ne		
3901	ashford dunwoody rd ne		
3908	ashford dunwoody rd ne		
3909	ashford dunwoody rd ne		
3916	ashford dunwoody rd ne		
3916	ashford dunwoody rd ne	100	
3917	ashford dunwoody rd ne		
3919	ashford dunwoody rd ne		
3924	ashford dunwoody rd ne		
3929	ashford dunwoody rd ne		
3933	ashford dunwoody rd ne		
3934	ashford dunwoody rd ne		
3935	ashford dunwoody rd ne		
3937	ashford dunwoody rd ne		
3946	ashford dunwoody rd ne		
3954	ashford dunwoody rd ne		
3968	ashford dunwoody rd ne		
3986	ashford dunwoody rd ne		
3987	ashford dunwoody rd ne		
3995	ashford dunwoody rd ne		
3995	ashford dunwoody rd ne	cafe	
3998	ashford dunwoody rd ne		
4000	ashford dunwoody rd ne		
4006	ashford dunwoody rd ne		
4018	ashford dunwoody rd ne		
4023	ashford dunwoody rd ne		
1413	ashford pl ne		
1413	ashford pl ne	pool	
1415	ashford pl ne		
1417	ashford pl ne		
1419	ashford pl ne		
1421	ashford pl ne		
1421	ashford pl ne	pool	
1423	ashford pl ne		
1425	ashford pl ne		
1429	ashford pl ne		
1431	ashford pl ne		
1433	ashford pl ne		
1435	ashford pl ne		
1437	ashford pl ne		
1439	ashford pl ne		
1441	ashford pl ne		
1443	ashford pl ne		
1447	ashford pl ne		
1449	ashford pl ne		
1451	ashford pl ne		
1453	ashford pl ne		
1455	ashford pl ne		
1457	ashford pl ne		

1459	ashford pl ne
1479	ashford pl ne
1481	ashford pl ne
1483	ashford pl ne
1485	ashford pl ne
1489	ashford pl ne
1491	ashford pl ne
1493	ashford pl ne
1495	ashford pl ne
1497	ashford pl ne
1499	ashford pl ne
1249	becket dr ne
1250	becket dr ne
1257	becket dr ne
1265	becket dr ne
1270	becket dr ne
1273	becket dr ne
1280	becket dr ne
1281	becket dr ne
1288	becket dr ne
1291	becket dr ne
1296	becket dr ne
1299	becket dr ne
1304	becket dr ne
1307	becket dr ne
1312	becket dr ne
1315	becket dr ne
1320	becket dr ne
1328	becket dr ne
1331	becket dr ne
1336	becket dr ne
1344	becket dr ne
1353	becket dr ne
1354	becket dr ne
1364	becket dr ne
1381	brenton dr ne
1391	brenton dr ne
1399	brenton dr ne
1415	brenton dr ne
1429	brenton dr ne
3886	brenton way ne
3889	brenton way ne
3892	brenton way ne
3897	brenton way ne
3900	brenton way ne
3907	brenton way ne
3908	brenton way ne
4016	candler lake ct ne
4020	candler lake ct ne
4026	candler lake ct ne
4030	candler lake ct ne
3980	candler lake west ne
3986	candler lake west ne
3992	candler lake west ne
3998	candler lake west ne
4010	candler lake west ne
4020	candler lake west ne
4030	candler lake west ne
4039	candler lake west ne
4040	candler lake west ne
4046	candler lake west ne
4050	candler lake west ne
4051	candler lake west ne
4058	candler lake west ne
4092	candler lake west ne
1239	chaucer ln ne
1244	chaucer ln ne
1247	chaucer ln ne
1254	chaucer ln ne
1257	chaucer ln ne
1262	chaucer ln ne

1269	chaucer ln ne			
1270	chaucer ln ne			
1277	chaucer ln ne			
1280	chaucer ln ne			
1285	chaucer ln ne			
1288	chaucer ln ne			
1296	chaucer ln ne			
1297	chaucer ln ne			
1306	chaucer ln ne			
1309	chaucer ln ne			
1316	chaucer ln ne			
1319	chaucer ln ne			
1324	chaucer ln ne			
1327	chaucer ln ne			
1335	chaucer ln ne			
1336	chaucer ln ne			
1343	chaucer ln ne			
1351	chaucer ln ne			
3872	chaucer wood ne			
3873	chaucer wood ne			
3880	chaucer wood ne			
3881	chaucer wood ne			
3886	chaucer wood ne			
3889	chaucer wood ne			
3895	chaucer wood ne			
3896	chaucer wood ne			
3901	chaucer wood ne			
3902	chaucer wood ne			
3908	chaucer wood ne			
3916	chaucer wood ne			
3918	chaucer wood ne			
3962	chesson ct ne			
3963	chesson ct ne			
3974	chesson ct ne			
3975	chesson ct ne			
3980	chesson ct ne			
3986	chesson ct ne			
ahn-1	e nancy creek dr			
1528	e nancy creek dr ne			
3911	edenton ct ne			
3912	edenton ct ne			
3917	edenton ct ne			
3922	edenton ct ne			
3925	edenton ct ne			
3935	edenton ct ne			
3943	edenton ct ne			
3951	edenton ct ne			
3957	edenton ct ne			
4066	murphy candler ct ne			
4068	murphy candler ct ne			
4074	murphy candler ct ne			
4078	murphy candler ct ne			
4082	murphy candler ct ne			
3845	parkcrest dr ne			
3848	parkcrest dr ne			
3853	parkcrest dr ne			
3856	parkcrest dr ne			
3863	parkcrest dr ne			
3864	parkcrest dr ne			
3872	parkcrest dr ne			
3873	parkcrest dr ne			
3880	parkcrest dr ne			
3883	parkcrest dr ne			
3888	parkcrest dr ne			
3896	parkcrest dr ne			
3902	parkcrest dr ne			
3908	parkcrest dr ne			
3914	parkcrest dr ne			
3917	parkcrest dr ne			
3920	parkcrest dr ne			
3925	parkcrest dr ne			

3928	parkcrest dr ne			
3933	parkcrest dr ne			
3936	parkcrest dr ne			
3943	parkcrest dr ne			
3944	parkcrest dr ne			
3952	parkcrest dr ne			
3962	parkcrest dr ne			
3866	rains ct ne			
3867	rains ct ne			
3872	rains ct ne			
3873	rains ct ne			
3878	rains ct ne			
3881	rains ct ne			
3886	rains ct ne			
3889	rains ct ne			
3894	rains ct ne			
3897	rains ct ne			
3905	rains ct ne			
3940	st clair ct ne			
3941	st clair ct ne			
3950	st clair ct ne			
3953	st clair ct ne			
3955	st clair ct ne			
3958	st clair ct ne			
3961	st clair ct ne			
3966	st clair ct ne			
3969	st clair ct ne			
3974	st clair ct ne			
3977	st clair ct ne			
3985	st clair ct ne			
3986	st clair ct ne			
3986	st clair ct ne	bsmnt		
3993	st clair ct ne			
3994	st clair ct ne			
3999	st clair ct ne			
4000	st clair ct ne			
4006	st clair ct ne			
3834	the ascent ne			
3835	the ascent ne			
3842	the ascent ne			
3843	the ascent ne			
3850	the ascent ne			
3851	the ascent ne			
3851	the ascent ne	main		
3858	the ascent ne			
3859	the ascent ne			
3866	the ascent ne			
3867	the ascent ne			
3872	the ascent ne			
3874	the ascent ne			
3875	the ascent ne			
3880	the ascent ne			
3882	the ascent ne			
3882	the ascent ne	bsmt		
3835	w nancy creek ct ne			
3843	w nancy creek ct ne			
3849	w nancy creek ct ne			
3851	w nancy creek ct ne			
3854	w nancy creek ct ne			
3862	w nancy creek ct ne			
1243	w nancy creek dr ne			
1254	w nancy creek dr ne			
1257	w nancy creek dr ne			
1265	w nancy creek dr ne			
1270	w nancy creek dr ne			
1273	w nancy creek dr ne			
1281	w nancy creek dr ne			
1281	w nancy creek dr ne	985		
1284	w nancy creek dr ne			
1289	w nancy creek dr ne			
1294	w nancy creek dr ne			

1297	w nancy creek dr ne			
1302	w nancy creek dr ne			
1305	w nancy creek dr ne			
1310	w nancy creek dr ne			
1313	w nancy creek dr ne			
1321	w nancy creek dr ne			
1326	w nancy creek dr ne			
1329	w nancy creek dr ne			
1334	w nancy creek dr ne			
1337	w nancy creek dr ne			
1342	w nancy creek dr ne			
1345	w nancy creek dr ne			
1352	w nancy creek dr ne			
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1360	w nancy creek dr ne			
1363	w nancy creek dr ne			
1372	w nancy creek dr ne			
1373	w nancy creek dr ne			
1385	w nancy creek dr ne			
1420	w nancy creek dr ne			
1448	w nancy creek dr ne			
1456	w nancy creek dr ne			
1494	w nancy creek dr ne			
1526	w nancy creek dr ne			
1526	w nancy creek dr ne	pool		
1528	w nancy creek dr ne			
1551	w nancy creek dr ne			
1552	w nancy creek dr ne			
3816	w nancy creek pl ne			
3843	w nancy creek pl ne			
3849	w nancy creek pl ne			
3851	w nancy creek pl ne			

(298 rows)

EXHIBIT
Qwest 2
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	:	**DOCKET NO. T-03632A-04-0425**

DIRECT TESTIMONY OF KAREN A. STEWART

ON BEHALF OF

QWEST CORPORATION

(Issue 1: Retirement of Copper Facilities)

December 20, 2004

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II. ISSUE 1: RETIREMENT OF COPPER FACILITIES (Sections 9.2.1.2.3, 9.2.1.2.3.1, and 9.2.1.2.3.2) 2

III. CONCLUSION 17

I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND BUSINESS ADDRESS.

A. My name is Karen A. Stewart. I am a Director in the Qwest Services Corporation Regulatory Compliance Organization. My office is located at 421 SW Oak Street, Portland, Oregon.

Q. PLEASE REVIEW YOUR EDUCATION, WORK EXPERIENCE AND PRESENT RESPONSIBILITIES.

A. I received a Bachelor of Science degree in Business Administration from Portland State University in 1980, and a Masters degree in Business Administration from the University of Oregon in July, 1994. I have been employed by Qwest and its predecessor companies since 1981. I have held a variety of positions in Qwest, including sales, product management, regulatory affairs, issues management, and E911 project management and technical design.

I am currently a member of the Qwest Regulatory Compliance organization and have represented Qwest in a number of workshops conducted under section 271 of the Telecommunications Act of 1996 ("the Act") related to Qwest's provisioning of unbundled network elements ("UNEs") in Arizona.

Q. HAVE YOU PREVIOUSLY TESTIFIED?

A. Yes. I have testified in the states of Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony addresses Issue 1, as set forth in Covad's Petition for Arbitration. In particular, I focus on Qwest's and Covad's competing interconnection agreement ("ICA") language relating to the FCC's ruling in the *Triennial Review Order* ("*TRO*")[1] confirming the right of incumbent local exchange carriers ("ILECs") to retire the copper loops that are currently used in their networks. Qwest and Covad have agreed that they will address the other issues relating to the *TRO* (Issues 2 and 3) in their post-hearing briefs, and I therefore do not address those issues in my testimony.

My testimony relating to copper retirement demonstrates that Covad is seeking to impose obligations on Qwest that the FCC has rejected and that violate requirements of the Act. I show that Qwest's proposed ICA language, by contrast, accurately incorporates the rights and obligations established by FCC rules and should be adopted.

II. ISSUE 1: RETIREMENT OF COPPER FACILITIES (Sections 9.2.1.2.3, 9.2.1.2.3.1, and 9.2.1.2.3.2)

Q. PLEASE PROVIDE AN OVERVIEW OF THE DISPUTE RELATING TO THE RETIREMENT OF COPPER FACILITIES.

A. As Qwest and other carriers have increasingly moved from copper to fiber facilities, it has become a common practice to retire copper facilities in many circumstances when fiber facilities are deployed. The ability to retire copper facilities is important from a cost perspective, since, without that ability, carriers would be required to incur the costs of maintaining two networks. If carriers were faced with that duplicative cost, they would have reduced financial ability to deploy facilities to replace copper and,

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[1] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd. 16978 ¶ 195 (2003), *aff'd in part and rev'd and vacated in part, U.S. Telecom Association v. FCC*, 359 F.3d 554 (D.C. Cir. 2004).

1 therefore, reduced ability to deploy facilities that can support advanced
2 telecommunications services. Accordingly, in the *TRO*, the FCC confirmed the right of
3 ILECs to retire copper loops and copper subloops that they are replacing with fiber
4 facilities without obtaining regulatory approval before doing so.[2] The only retirement
5 conditions that the FCC established are that an ILEC provide notice of its intent to
6 retire specific copper facilities so that, in some cases, CLECs can object to the FCC.

7 The dispute relating to this issue arises from Covad's attempt to condition Qwest's right
8 to retire copper facilities on onerous conditions that the FCC did not adopt and that, if
9 adopted, would reduce Qwest's ability to replace copper facilities with more advanced
10 network facilities. Specifically, in section 9.2.2.3.1 of its proposed ICA, Covad
11 attempts to prohibit Qwest from retiring copper facilities unless it provides Covad or
12 Covad's end-users an "alternative service" over a "compatible facility." Further, under
13 Covad's proposal, Qwest could not retire a copper facility unless the alternative service
14 it would be required to provide neither "increased the cost" nor degraded the quality of
15 service for Covad or its end-user. These burdensome conditions are nowhere to be
16 found in the *TRO* or in any other FCC order. They are entirely of Covad's own making,
17 unsupported by the Act or any rules implementing the Act. Adding to this absence of
18 legal support, Covad's proposal is so ambiguous that it is incapable of being
19 implemented in a reliable and predictable manner. For example, Covad's proposed ICA
20 language does not define the term "alternative service," does not explain what would
21 constitute an increase in cost, and does not provide a standard for determining whether
22 there is a "degradation" in quality. The three regulators that have ruled on Covad's
23 proposal thus far -- the Colorado Commission and ALJs with the Washington and

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[2] *TRO* at ¶ 271.

1 Minnesota Commissions -- have accordingly rejected it and ruled that it is inconsistent
2 with the *TRO*.

3 Qwest's proposed language for sections 9.2.1.2.3.1 and 9.2.1.2.3.2, by contrast, is not
4 only consistent with the *TRO*, it also provides significant protections to Covad that are
5 not required by the *TRO*. Thus, in addition to including the retirement notice
6 requirements established by the *TRO*, Qwest's language establishes that Qwest (1) will
7 leave copper loops and subloops in service where it is technically feasible to do so and
8 (2) will coordinate with Covad the transition of new facilities "so that service
9 interruption is held to a minimum."

10 **Q. WHAT IS MEANT BY THE TERM "RETIRING" COPPER FACILITIES?**
11 A. As used in this context, "retiring" means to take facilities out of service. In some cases,
12 such as with aerial facilities, taking them out of service can mean actually removing
13 wire and cable from telephone poles. In other cases, facilities can be taken out of
14 service by being deactivated or deleted from network inventory systems but not
15 physically removed. In either case, the retirement of the facility eliminates the need to
16 maintain it.

17 **Q. UNDER THE FCC'S RULING CONFIRMING THE ILECS' RIGHT TO**
18 **RETIRE COPPER FACILITIES, IS IT NECESSARY FOR ILECS TO OBTAIN**
19 **REGULATORY APPROVAL BEFORE RETIRING COPPER LOOPS AND**
20 **SUBLOOPS?**
21 A. No. The *TRO* confirms the ILECs' right to retire copper loops and subloops that are
22 being replaced with fiber, which is a ruling that advances the FCC's objective of

1 increasing economic incentives for carriers to deploy fiber facilities.[3] Specifically, in
2 paragraph 271 of the *TRO*, the FCC stated that it "decline[s] to prohibit incumbent
3 LECs from retiring copper loops or subloops that they have replaced with fiber." The
4 FCC explained that the retirement of copper loops being replaced with fiber is
5 permissible and that, in appropriate cases, ILECs must provide notice of such
6 retirements pursuant to the FCC's network modification disclosure requirements:
7 "[W]e reiterate that our section 251(c)(5) network modification disclosure requirements
8 . . . apply to the retirement of copper loops and copper subloops."[4] In addition, in
9 granting ILECs the right to retire copper loops that are being replaced with fiber, the
10 FCC rejected CLEC proposals that would have required ILECs to obtain regulatory
11 approval before retiring copper facilities.[5]

12 **Q. HAS THE FCC ESTABLISHED COPPER RETIREMENT RULES THAT ARE**
13 **SPECIFIC TO SITUATIONS IN WHICH AN ILEC IS REPLACING COPPER**
14 **LOOPS WITH FIBER-TO-THE-HOME ("FTTH") LOOPS?**

15 A. Yes. As noted above, in paragraph 271 of the *TRO*, the FCC established the general
16 rule that ILECs have a right to "retir[e][ ] copper loops or copper subloops that they
17 have replaced with fiber." After confirming this general rule, the FCC then established
18 notice requirements that are specific to the situation where an ILEC is replacing a
19 copper loop or subloop with a FTTH loop. Specifically, ILECs must provide notice of
20 such planned retirements to the FCC and, after receiving notice from the FCC of an
21 ILEC's intent to retire a copper facility, a CLEC is permitted to object to the retirement

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[3] *TRO* at ¶ 281.

[4] *TRO* at ¶ 271.

[5] *TRO* at ¶ 281

in a filing with the FCC. Unless the FCC affirmatively allows the objection, it is deemed denied 90 days after the FCC's issuance of the retirement notice.[6] Significantly, the FCC made it clear that these unique notice requirements "apply only to the retirement of copper loops and copper subloops, but not to the retirement of copper feeder plant."[7]

Q. DOES QWEST'S PROPOSED ICA LANGUAGE COMPLY WITH THESE FCC RULINGS RELATING TO THE RETIREMENT OF COPPER FACILITIES?

A. Yes. Qwest's language complies with and goes beyond the requirements in the *TRO*. First, pursuant to section 9.1.15 of the ICA – a recently added section that the parties have agreed upon – Qwest will provide notice of *all* planned copper retirements, including notices relating to the retirement of copper feeder in addition to notices for the retirement of copper loops and subloops. Second, under section 9.1.15, Qwest will provide notice not just when it is replacing a copper facility with a FTTH loop, but whenever a copper facility is being replaced with any fiber facility. Third, consistent with the *TRO*, Qwest's proposed section 9.2.1.2.3 of the ICA establishes that in addition to complying with the FCC's notice requirements, Qwest will comply with any applicable state requirements. Fourth, while the FCC rule relating to notice of network modifications permits an ILEC to provide notice by *either* filing a public notice with the FCC *or* by providing notice through industry publications or an Internet site, Qwest has committed in sections 9.1.15 and 9.2.1.2.3 to provide three different types of notice: (1) through postings on its website; (2) by a public filings with the FCC; and (3)

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[6] *TRO* at ¶ 282. The *TRO* does not preempt evaluations by state commissions of whether loop retirements comply with state law. *Id.* at ¶ 284.

[7] *TRO* at ¶ 281 & n.829.

through e-mail notices that Qwest will send to CLECs. Qwest provides the website notice on its "disclosure website" at **http://www.qwest.com/disclosures.** This disclosure website has been used for other disclosures in recent years, and CLECS are familiar with it location and use.

The information Qwest provides in its notices includes the state and wire center where the facility is located, the specific location of the facility within the wire center, the anticipated date that the facility will be retired, and a description of the immediate effect of the retirement.

Q. ALTHOUGH IT IS NOT NECESSARY FOR QWEST TO OBTAIN REGULATORY APPROVAL BEFORE RETIRING COPPER FACILITIES, DOES QWEST NEVERTHELESS TAKE INTO CONSIDERATION THE NEEDS OF CLECS BEFORE RETIRING THESE FACILITIES?

A. Yes. First, before deciding to retire copper loops that are serving Qwest and/or CLEC end-users customers, Qwest routinely evaluates whether it is technically feasible to leave the copper loops in place. In many instances, Qwest decides not to retire copper loops when it deploys fiber facilities. Second, when it does retire a copper loop that a CLEC is using to provide DSL service, Qwest gives the CLEC the option of continuing to provide DSL service to the end-user customer through the use of CLEC-owned remote digital subscriber loop access multiplexers ("DSLAMs"). The CLEC can use Qwest remote collocation space to collocate a DSLAM and to continue providing DSL service to its end-user customers. Third, Qwest coordinates circuit changes with CLECs to ensure that transitions from copper facilities to new fiber facilities are orderly and involve minimal disruptions of local exchange service. Fourth, when Qwest replaces copper facilities with new copper facilities, it jointly coordinates the

1 transition to the new facilities with CLECs to minimize service disruptions.

2 **Q. DOES THE *TRO* PROVIDE SUPPORT FOR THE CONDITIONS COVAD**
3 **SEEKS TO IMPOSE ON QWEST?**

4 A. No. In fact, the FCC considered and rejected conditions proposed by other CLECs that
5 would have similarly compromised the right of ILECs to retire copper facilities.
6 Several CLECs proposed that ILECs should not be permitted to retire any copper
7 facilities without taking affirmative steps to avoid effects on CLEC service.[8] For
8 example, one party to the FCC's *TRO* proceeding proposed that ILECs should not be
9 permitted to retire copper loops unless they permitted CLECs access to their broadband
10 facilities. The FCC rejected this and other proposals, concluding that its notice rules
11 "serve as adequate safeguards."[9] There is no suggestion – and certainly no requirement
12 – anywhere in the *TRO* or in any other FCC order that an ILEC is permitted to retire a
13 copper facility only if, as Covad proposes, it provides an "alternative service" that
14 neither "degrades service" nor "increases the cost" to Covad or its end-user customers.

15 **Q. HAVE OTHER STATE COMMISSIONS EVALUATED WHETHER**
16 **COVAD'S "ALTERNATIVE SERVICE" PROPOSAL IS CONSISTENT**
17 **WITH THE *TRO*?**

18 A. Yes. In an order issued just last week, on December 15, 2004, a Minnesota
19 administrative law judge rejected Covad's copper retirement proposal in its entirety.

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[8] *TRO* at ¶ 281 & n.822.

[9] *TRO* at ¶ 281.

1 In doing so, she explained that "[t]here is no legal support in the TRO for Covad's
2 position concerning 'alternative' services."[10]

3 In addition, a decision issued last month in the Qwest/Covad arbitration in
4 Washington, an administrative law judge rejected Covad's proposal on the ground
5 that it is inconsistent with the FCC's rulings in the *TRO*: "Covad's proposal requiring
6 Qwest to provide an alternative arrangement at no additional cost to Covad is not
7 consistent with the requirements of the Triennial Review Order."[11] In so ruling, the
8 ALJ observed that the FCC has "rejected proposals to place specific conditions on an
9 ILEC's right to retire copper facilities" and has only required that ILECs provide
10 notice of planned retirements."[12]

11 Similarly, the Colorado Commission has rejected Covad's proposal, finding that it is
12 without legal support.[13] In addition, the Colorado Commission recently rejected
13 Covad's new position that Qwest's right to retire copper facilities should be limited to
14 situations in which Qwest is replacing copper loops with FTTH loops, ruling that

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[10] *In Matter of the Petition of Covad Communications Co. for Arbitration to Resolve Issues Relating to an Interconnection Agreement with Qwest Corporation*, MPUC Docket No. P-5692, 421/IC-04-549, OAH Dcoket No. 3-2500-15908-4, Arbitrator's Report at ¶ 23 (Dec. 15, 2004) ("Minnesota Arbitration Order").

[11] *In the Matter of the Petition for Arbitration of Covad Communications Company with Qwest Corporation Pursuant to 47 U.S.C. Section 252(b) and the Triennial Review Order*, Washington Commission Docket No. UT-043045, Order No. 04, Arbitrator's Report and Decision at ¶ 38 (Nov. 2, 2004).

[12] *Id.* at 13.

[13] *Petition of Qwest Corporation for Arbitration of an Interconnection Agreement*, Docket No. 04B-160T, Initial Commission Decision, Decision No. C04-1037 at 54 (rel. Aug. 27, 2004).

1 Qwest is therefore permitted to retire copper loops that it replaces with hybrid copper-
2 fiber loops.[14]

3 Thus, in the three arbitrations in which this issue has been reviewed, Covad's proposal
4 has been rejected and found not to comply with governing law.

5 **Q. IF QWEST WERE REQUIRED TO PROVIDE AN ALTERNATIVE SERVICE**
6 **OVER COMPATIBLE FACILITIES, AS COVAD PROPOSES, WHAT EFFECT**
7 **COULD THAT HAVE ON QWEST'S DECISIONS WHETHER TO DEPLOY**
8 **THE FIBER FACILITIES THAT SUPPORT ADVANCED**
9 **TELECOMMUNICATION SERVICES?**

10 A. Imposing Covad's requirements would reduce Qwest's economic incentive and ability
11 to deploy fiber facilities, since compliance with those requirements would force Qwest
12 to consider all such costs in any investment decision concerning whether to deploy
13 fiber. If Qwest is faced with costs of providing an "alternative service" over
14 "compatible facilities" (as defined by Covad) each time it considers whether to replace
15 copper facilities with fiber, the economics of that decision will be changed in a way that
16 will make the deployment of fiber less likely. In addition, Covad's proposal would
17 prohibit Qwest from recovering the costs of this undefined "alternative service" if the
18 costs exceed the amount Covad is currently paying Qwest for access to copper loops.
19 A requirement to provide an alternative service for which Qwest may not recover its
20 costs would create an economic disincentive for deploying fiber that is clearly

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[14] *Petition of Qwest Corporation for Arbitration of an Interconnection Agreement*, Docket No. 04B-160T, Decision No. C04-1348, Order Granting in Part and Denying in Part Application for Rehearing, Reargument, or Reconsideration at 10 (rel. Nov. 16, 2004).

1 inconsistent with the Act's objective, as set forth in section 706, of increasing the
2 deployment of advanced telecommunications facilities.

3 While the FCC stated in the *TRO* that it was not preempting state commissions from
4 evaluating whether an ILEC's policies relating to loop retirements comply with state
5 law, any state law requirements relating to this issue must be consistent with the Act's
6 objective of encouraging the deployment of advanced telecommunications facilities and
7 its requirement that ILECs are permitted to recover the costs they incur to provide
8 interconnection and access to unbundled network elements.

9 **Q. PLEASE EXPLAIN FURTHER HOW QWEST'S ABILITY TO RETIRE**
10 **COPPER FACILITIES RELATES TO THE GOAL OF ENCOURAGING THE**
11 **DEPLOYMENT OF FACILITIES THAT SUPPORT BROADBAND SERVICES.**
12 A. In the *TRO*, the FCC identified the deployment of broadband services as one of its
13 paramount objectives, emphasizing that "[b]roadband deployment is a critical domestic
14 policy objective that transcends the realm of communications."[15] Accordingly, the
15 FCC sought to formulate rules that would "help drive the enormous infrastructure
16 investment required to turn the broadband promise into a reality."[16]

17 An important component of the FCC's regulatory regime for promoting investment in
18 broadband is its ruling confirming the right of ILECs to retire copper loops. The
19 economic incentive of a carrier to deploy fiber loops increases if the carrier is permitted
20 to retire copper loops when it deploys fiber. Without a right to retire copper, a carrier
21 evaluating whether to deploy fiber would be faced with the duplicative costs of

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[15] *TRO* at ¶ 212.

[16] *Id.*

1 maintaining *both* the copper and the fiber facilities. A critical shortcoming of Covad's
2 proposal is that it would require Qwest to either (1) not retire copper loops and incur
3 the resulting duplicative maintenance costs or (2) retire copper loops but only after
4 providing an "alternative service" for which full cost recovery would not be allowed.
5 Both of these options reduce Qwest's ability to deploy fiber facilities and are
6 inconsistent with the right of Qwest to recover its costs for providing access to network
7 elements to CLECs.

8 **Q. DO YOU HAVE ADDITIONAL CONCERNS RELATING TO COVAD'S**
9 **PROPOSAL FOR COPPER RETIREMENTS?**

10 A. Yes. Covad's proposal also is improper because, as discussed above, it would prevent
11 Qwest from recovering its costs and also is so ambiguous as to be incapable of clear
12 implementation. Covad's proposal would require Qwest to provide an "alternative
13 service" at no increase in the cost that Covad is currently incurring in Arizona to
14 provide DSL service to its end-user customers. This artificial cap on what Covad
15 would be required to pay for an alternative service violates Qwest's right under the Act
16 to recover the costs it incurs to provide unbundled network elements and
17 interconnection services. Specifically, section 252(d)(1) of the Act requires that rates
18 for interconnection and network element charges be "just and reasonable" and based on
19 "the cost (determined without reference to a rate-of-return or other rate-based
20 proceeding) of providing the interconnection or network element."

21 Under Covad's proposal, Qwest would only be permitted to charge a maximum
22 monthly recurring rate of $2.42 for the alternative service, since Covad is currently
23 paying the Commission-prescribed monthly rate of $2.42 for access to the high
24 frequency portion of the unbundled loop. This rate would serve as a cap on Qwest's

1 cost recovery under Covad's proposal, regardless of the amount of the costs Qwest
2 would incur to provide an alternative service. This artificial cap could prevent Qwest
3 from recovering its costs in violation of the Act's cost recovery requirement. Moreover,
4 this rate was established by this Commission after specifically reviewing the recurring
5 costs of line sharing, not some undefined "alternative" service. It is simply
6 inappropriate to use the cost for one product, to establish a rate for a different
7 "alternative" service.

8 **Q. WHAT CONCERNS DO YOU HAVE RELATING TO THE AMBIGUITY OF**
9 **COVAD'S PROPOSAL?**

10 A. It is fundamental that ICA terms and conditions, as with any contract, should be clearly
11 defined to apprise parties of their rights and obligations and to thereby avoid or
12 minimize disputes. Covad's "alternative service" proposal falls far short of this basic
13 requirement.

14 The most glaring contractual shortcoming of Covad's proposal is the absence of any
15 definition of the "alternative service" that Qwest would have to provide upon retiring a
16 copper loop. Nowhere in its proposal does Covad define this term, which is central to
17 its proposal. Under the plain language of the ICA, therefore, Qwest would have no way
18 of knowing what alternative service to provide or whether such a service would meet
19 the requirements of the ICA. Covad likewise fails to define the requirement that the
20 alternative service "not degradate the service or increase the costs to CLEC or End-
21 User Customers of CLEC." It does not propose, for example, any metrics to determine
22 whether the service has degraded. Nor does it offer any ICA language for measuring
23 whether the costs of service have increased.

24 In short, Covad's language fails to define with any clarity the parties' rights and

obligations and would inevitably lead to costly and time-consuming disputes in the implementation and administration of the ICA.

Q. PLEASE EXPLAIN HOW COVAD HAS RECENTLY REVISED ITS PROPOSAL RELATING TO COPPER RETIREMENT.

A. Covad initially proposed ICA language that had its "alternative service" requirement only applying when Qwest replaces a copper loop with a FTTH loop. In recent filings in other states, however, Covad has changed its position by eliminating application of the requirement to FTTH loops and, instead, proposing it for situations where Qwest replaces a copper loop with a hybrid copper-fiber loop. In view of Covad's continuing refusal to be clear about the type of "alternative service" it is seeking, Qwest is concerned that Covad ultimately may be seeking access to the broadband capabilities of hybrid loops.

Q. IN THE *TRO*, DID THE FCC ISSUE A RULING CONCERNING WHETHER ILECS ARE REQUIRED TO PROVIDE UNBUNDLED ACCESS TO HYBRID LOOPS?

A. Yes. In paragraphs 288 and 290 of the *TRO*, the FCC ruled that ILECs are not required to unbundle the broadband capabilities of hybrid loops. In reaching that result, the FCC specifically considered and rejected arguments that Covad presented in that proceeding in an attempt to obtain unbundled access to the broadband capabilities of these loops:

> We decline to require incumbent LECs to unbundle the next-generation network, packetized capabilities of their hybrid loops to enable requesting carriers to provide broadband services to the mass market. AT&T, WorldCom, Covad, and others urge the Commission to extend our unbundling requirements to the packet-based and fiber optic portions of incumbent LEC hybrid loops. We conclude, however, that applying section 251(c) unbundling obligations to these next-generation network elements would blunt the deployment of

> advanced telecommunications infrastructure by incumbent LECs and the incentive for competitive LECs to invest in their own facilities, in direct opposition to the express statutory goals authorized in section 706. The rules we adopt herein do not require incumbent LECs to unbundle any transmission path over a fiber transmission facility between the central office and the customer's premises (including fiber feeder plant) that is used to transmit packetized information. Moreover, *the rules we adopt herein do not require incumbent LECs to provide unbundled access to any electronics or other equipment used to transmit packetized information over hybrid loops, such as the xDSL-capable line cards installed in DLC systems* or equipment used to provide passive optical networking (PON) capabilities to the mass market.[17]

As this ruling shows, the FCC has made it clear that ILECs are not required to unbundle the broadband capabilities of their hybrid loops. To the extent that Covad is seeking access to those capabilities, its request violates the *TRO*.

Q. IS THIS FCC RULING RELATING TO HYBRID LOOPS RELEVANT TO COVAD'S REVISED PROPOSAL FOR COPPER RETIREMENT?

A. Yes. As I discussed above, Qwest is concerned that the underlying intent of Covad's new proposal may be to gain unbundled access to the broadband capabilities of hybrid loops -- precisely what the FCC rejected in the *TRO*. In this regard, it is significant that Covad has not offered a definition of the "alternative service" that Qwest would have to provide before retiring a copper facility. Given the complete vagueness of that term, if Covad's proposal were adopted, it is quite possible Covad would claim that access to the broadband capabilities of hybrid loops is the "alternative service" to which it would be entitled. That outcome would directly violate the FCC's ruling.

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[17] *TRO* at ¶ 288. (Footnotes omitted and emphasis added).

Q. DID THE COLORADO COMMISSION RECENTLY ADDRESS COVAD'S REVISED PROPOSAL?

A. Yes. The Colorado Commission ruled very clearly that Covad's new focus on hybrid loops and its application of its "alternative service" proposal to those loops does not make the proposal lawful. The Commission explained:

> In our reading of the TRO, ¶¶ 277-94, the FCC does not differentiate between requirements when "home run" copper is replaced with copper-fiber hybrid loops. Covad cites ¶¶ 277-279 of the TRO, stating that the copper retirement rules only apply to the extent that hybrid loops are an interim step to establishing all fiber FTTH loops. Nowhere in these paragraphs do we find this statement. In fact, the FCC indicates at footnote 847 that an ILEC can remove copper loops from plant so long as they comply with the FCC's Part 51 notice requirements, without any exclusion given to hybrid loops.

As this ruling shows, Covad's newly revised language does not cure the flawed nature of its proposal.

Q. PLEASE SUMMARIZE YOUR POSITION RELATING TO THIS ISSUE?

A. Qwest has proposed language that complies fully with the FCC's requirements relating to the retirement of copper facilities and also goes beyond those requirements to minimize the possibility of service disruptions for Covad's end-user customers. By contrast, Covad has proposed unlawful conditions that would decrease Qwest's incentive to deploy fiber facilities, could prevent Qwest from recovering its costs, and, because of their ambiguity, would lead to inevitable disagreements and disputes in the parties' implementation of the ICA. Accordingly, the Commission should adopt Qwest's proposed ICA language relating to this issue.

1 **III. CONCLUSION**

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

3 A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION.	)	**DOCKET NO. T-03632A-04-0425** **T-01051B-04-0425**

STATE OF Oregon
COUNTY OF Multnomah

AFFIDAVIT OF
KAREN A. STEWART

: **SS**

Karen A. Stewart, of lawful age being first duly sworn, depose and states:

1. My name is Karen A Stewart. I am Director for Qwest Services Corporation in Portland, OR. I have caused to be filed written direct testimony in Docket No. T-03632A-04-0425/ T-01051B-04-0425.

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.

Karen A. Stewart

Karen A. Stewart

SUBSCRIBED AND SWORN to before me this ninth day of December, 2004.

Carla M Butler

Notary Public

My Commission Expires: 6/1/07

OFFICIAL SEAL
CARLA M. BUTLER
NOTARY PUBLIC-OREGON
COMMISSION NO. 368928
MY COMMISSION EXPIRES JUNE 1, 2007

EXHIBIT
Qwest 3
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	:	**DOCKET NOS. T-03632A-04-0425** **T-01051B-04-0452**

REBUTTAL TESTIMONY
OF
KAREN A. STEWART
FOR
QWEST CORPORATION

(Issue 1: Retirement of Copper Facilities)

January 18, 2005

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1 **I. OVERVIEW**

2 **Q. PLEASE STATE YOUR NAME.**

3 A. My name is Karen A. Stewart. I filed direct testimony in this proceeding on
4 December 20, 2004. I described my background and job responsibilities with Qwest
5 Corporation in that testimony.

6 **Q. WHAT IS THE PURPOSE OF YOUR RESPONSE TESTIMONY?**

7 A. My response testimony addresses the direct testimony of Covad witness, Michael
8 Zulevic, relating to Issue 1 – Retirement of Copper Facilities. In particular, I respond
9 to Mr. Zulevic's assertions that the conditions Covad seeks to impose on Qwest's right
10 to retire copper facilities are consistent with the FCC's rulings in the *Triennial Review*
11 *Order* ("*TRO*")[1] and would not affect Qwest's economic incentive to deploy fiber
12 facilities. As I discuss below, Covad's proposal is not consistent with the *TRO*, as the
13 FCC considered and rejected imposing the types of conditions that Covad is seeking.
14 The only requirement the FCC imposed is that incumbent local exchange carriers
15 ("ILECs") must comply with the FCC's notice requirements relating to network
16 modifications when they retire copper facilities, which Qwest clearly does.

[1] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd. 16978 ¶ 195 (2003) ("TRO"), *aff'd in part and rev'd and vacated in part, U.S. Telecom Association v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) ("*USTA II*").

1 As I also address below, Covad's proposals reveal disregard for the FCC's clearly
2 stated policy of promoting the deployment of fiber facilities. In the *TRO* and in other
3 orders, the FCC has recognized that it has a Congressionally-mandated obligation to
4 promote fiber deployment so that consumers can have broad access to advanced
5 telecommunications services.[2] A critical component of the FCC's effort to meet this
6 obligation is its decision not to require ILECs to provide unbundled access to fiber-to-
7 the-home ("FTTH") loops, fiber-to-the-curb ("FTTC") loops, and the broadband
8 capabilities of hybrid copper-fiber loops ("hybrid loops"), along with the FCC's
9 related decision confirming the ILECs' right to retire copper loops that are replaced
10 by fiber facilities.[3] Mr. Zulevic's testimony makes it clear that Covad's proposal
11 relating to copper facilities disregards this important policy objective and that, in
12 Covad's view, this Commission should be unconcerned about promoting the
13 deployment of fiber facilities. However, promoting the deployment of these facilities
14 and making advanced telecommunications services widely available to consumers are
15 critical objectives of the Act and sound public policy. The Act and the FCC's
16 pronouncements do not permit undermining these objectives through the type of
17 onerous retirement conditions that Covad is proposing.

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[2] *TRO* at ¶ 278.
[3] *Id.*

II. ISSUE 1 – RETIREMENT OF COPPER FACILITIES

Q. ON PAGES 10-13 OF HIS DIRECT TESTIMONY, MR. ZULEVIC DESCRIBES HOW COVAD'S PROPOSAL REQUIRING QWEST TO PROVIDE AN "ALTERNATIVE SERVICE" WHEN IT RETIRES COPPER FACILITIES WOULD BE IMPLEMENTED. DOES HIS DESCRIPTION PROVIDE ANY FURTHER INSIGHT INTO WHETHER COVAD'S PROPOSAL IS CONSISTENT WITH THE *TRO* AND THE ACT?

A. Mr. Zulevic's description confirms that there is no support in the Act or the *TRO* for Covad's proposal. At page 13 of his testimony, he explains that Covad's proposed language would require Qwest to provide an undefined "alternative service" at "no increase in cost or decrease in service quality until [a Covad customer] choose[s] to disconnect his/her Covad service." These conditions are not found anywhere in the *TRO* or in the Act.

In the *TRO* proceeding, some parties requested that ILECs be prohibited from retiring copper loops unless they take "transitional measures" that would give CLECs some form of continued access to copper loops or provide CLECs with access to ILEC

1 broadband facilities.[4] The FCC rejected these proposals, choosing instead to require
2 only that an ILEC provide notice of its intent to retire specific copper facilities so that
3 a CLEC can object to the FCC. The FCC found that its notice requirements would
4 "serve as adequate safeguards."[5] Covad's proposed conditions on Qwest's retirement
5 right clearly go far beyond any requirements imposed by the FCC and therefore are
6 not consistent with the *TRO*.

7 **Q. HAVE OTHER STATE COMMISSIONS EVALUATED WHETHER**
8 **COVAD'S "ALTERNATIVE SERVICE" PROPOSAL IS CONSISTENT**
9 **WITH THE *TRO*?**

10 A. Yes. In each of the three arbitration decisions that have been issued so far in the
11 ongoing interconnection arbitrations between Covad and Qwest, Covad's copper
12 retirement proposal has been rejected and found not to comply with the *TRO*. No
13 state commission has found the proposal to be lawful, and it has not been adopted
14 anywhere. The Colorado Commission rejected Covad's proposal, finding that it is

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[4] *Id.* at ¶ 281 & n.822 and ¶ 291 & n.839.

[5] *Id.* at ¶ 281. While the FCC concluded that CLECs are not impaired without access to FTTH loops, it ruled that "in fiber loop overbuild situations where the incumbent LEC elects to retire existing copper loops . . . the incumbent LEC [must] offer unbundled access to those fiber loops, and in such cases the fiber loops must be unbundled for narrowband services only." *Id.* at ¶ 273. Thus, if an ILEC retires a copper loop in a fiber-to-the-home overbuild situation, it has an obligation to provide an unbundled voice channel for narrowband service only – not for broadband service. An "overbuild" situation is distinguished from a newly deployed or "greenfield" fiber loop that does not replace a copper loop. *Id.*

1 without legal support.[6] Similarly, the administrative law judge in the Washington
2 arbitration ruled that Covad's "proposal requiring Qwest to provide an alternative
3 arrangement at no additional cost to Covad is not consistent with the requirements of
4 the Triennial Review Order."[7] In so ruling, the Arbitrator relied on the fact that the
5 FCC has "rejected proposals to place specific conditions on an ILEC's right to retire
6 copper facilities" and has only required that ILECs provide public notice of planned
7 retirements.[8] Likewise, in an order issued in the Minnesota arbitration last month, an
8 administrative law judge ruled that "[t]here is no legal support in the TRO for Covad's
9 position concerning 'alternative' services."[9]

10 **Q. AT PAGE 13 OF HIS TESTIMONY, MR. ZULEVIC ASSERTS THAT**
11 **THE RULINGS IN THE *TRO* CONFIRMING THE RIGHT OF ILECS**
12 **TO RETIRE COPPER FACILITIES APPLY ONLY WHEN AN ILEC**
13 **REPLACES A COPPER FACILITY WITH A FTTH OR A FTTC LOOP.**
14 **IS HIS ASSERTION CORRECT?**

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[6] *See Petition of Qwest Corporation for Arbitration of an Interconnection Agreement*, Docket No. 04B-160T, Initial Commission Decision, Decision No. CO4-1037 at 54 (Aug. 27, 2004).

[7] *In the Matter of the Petition for Arbitration of Covad Communications Company with Qwest Corporation Pursuant to 47 U.S.C. Section 252(b) and the Triennial Review Order*, Washington Commission Docket no. UT-043045, Order No. 04, Arbitrator's Report and Decision at ¶ 38 (Nov. 2, 2004) ("Washington Arbitrator's Report").

[8] *Id.*

[9] *In the Matter of the Petition of Covad Communications Company to Resolve Issues Relating to an Interconnection Agreement with Qwest Corporation*, Minnesota Commission Docket No. P-5692, 421/IC-04-549, OAH Docket No. 3-2500-15908-4, Arbitrator's Report at ¶ 23 (Dec. 15, 2004) ("Minnesota Arbitrator's Report").

A. No. In the *TRO*, the FCC confirmed that ILECs are permitted to retire copper facilities when they replace copper with fiber in all circumstances, not just when the copper loop is replaced with a FTTH or a FTTC loop. Specifically, in the line sharing portion of the *TRO* at paragraph 271, the FCC specifically "decline[d] to prohibit incumbent LECs from retiring copper loops or copper subloops *that they have replaced with fiber*."[10] As this quote clearly demonstrates, the FCC did not limit the right of ILECs to retire copper facilities solely to situations involving the installation of FTTH or FTTC loops. Instead, ILECs are permitted to retire any copper loops and subloops that they have replaced "with fiber." In his discussion of the *TRO*, Mr. Zulevic not only fails to acknowledge this statement by the FCC, but he also fails to cite any ruling by the FCC in the *TRO* or in any other order that supports Covad's very narrow reading of ILEC's copper retirement rights.

Q. IS MR. ZULEVIC'S NARROW INTERPRETATION OF ILEC COPPER RETIREMENT RIGHTS CONSISTENT WITH THE FCC'S POLICY OF ENCOURAGING CARRIERS TO DEPLOY FIBER FACILITIES?

A. No. As I discuss in my direct testimony at pages 11-12, the FCC has emphasized the importance of encouraging carriers to deploy fiber facilities in order to bring advanced telecommunication services to carriers throughout the country. The FCC

[10] Emphasis added.

again emphasized the importance of this Congressionally-mandated objective in a recent order relating to FTTC loops. In that order, in which the FCC ruled that FTTC loops are subject to the same limited unbundling obligations that apply to FTTH loops, the FCC emphasized the importance of "eliminat[ing] disincentives to invest in broadband facilities and, therefore, further section 706's goals."[11]

If the right of ILECs to retire copper facilities were limited to situations involving installations of FTTH loops, as Mr. Zulevic incorrectly claims, ILECs would have reduced incentive to deploy fiber. This reduced incentive would arise because, in the absence of a retirement right, an ILEC would have to maintain both its copper facilities and the newly deployed fiber facility. Faced with the prospect of duplicative maintenance costs, an ILEC would be less likely to install fiber facilities. That result would directly undermine the FCC's policy of encouraging the deployment of fiber.

Q. WHAT DOES MR. ZULEVIC'S TESTIMONY REVEAL ABOUT WHETHER COVAD CONSIDERED THE IMPORTANCE OF ENCOURAGING THE DEPLOYMENT OF FIBER FACILITIES IN FORMULATING ITS POSITION RELATING TO THE RETIREMENT OF COPPER FACILITIES?

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[11] *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket Nos. 01-338, 96-98, 98-147, FCC 04-248, Order on Reconsideration at ¶ 13 (rel. Oct. 18, 2004).

1 A. Mr. Zulevic's testimony confirms that Covad has disregarded the FCC's clearly stated
2 policy objective of encouraging the deployment of fiber facilities. In view of the
3 FCC's statements about the importance of fiber deployment to consumer welfare,
4 Covad is wrong in assuming that investment incentives are irrelevant to the issue of
5 copper retirement. By proposing language that would decrease incentive to deploy
6 fiber and by failing even to acknowledge the importance of policies that promote
7 investment in fiber facilities, Covad is acting inconsistently with a fundamental goal
8 of the Act.

9 **Q. AT PAGES 10 AND 13 OF HIS TESTIMONY, MR. ZULEVIC STATES**
10 **THAT COVAD'S NEWLY REVISED PROPOSAL IS INTENDED TO**
11 **ADDRESS THE SITUATION IN WHICH QWEST IS RETIRING A**
12 **COPPER LOOP AND REPLACING IT WITH A "HYBRID LOOP." IN**
13 **THE *TRO*, DID THE FCC ISSUE A RULING CONCERNING**
14 **WHETHER ILECS ARE REQUIRED TO PROVIDE UNBUNDLED**
15 **ACCESS TO HYBRID LOOPS?**

16 A. Yes. In paragraphs 288 and 290 of the *TRO*, the FCC ruled that ILECs are not
17 required to unbundle the broadband capabilities of hybrid loops, which are loops
18 comprised of both fiber and copper. In reaching that result, the FCC specifically

considered and rejected arguments that Covad presented in an attempt to obtain unbundled access to the broadband capabilities of these loops:

> We decline to require incumbent LECs to unbundle the next-generation network, packetized capabilities of their hybrid loops to enable requesting carriers to provide broadband services to the mass market. AT&T, WorldCom, Covad, and others urge the Commission to extend our unbundling requirements to the packet-based and fiber optic portions of incumbent LEC hybrid loops. We conclude, however, that applying section 251(c) unbundling obligations to these next-generation network elements would blunt the deployment of advanced telecommunications infrastructure by incumbent LECs and the incentive for competitive LECs to invest in their own facilities, in direct opposition to the express statutory goals authorized in section 706. The rules we adopt herein do not require incumbent LECs to unbundle any transmission path over a fiber transmission facility between the central office and the customer's premises (including fiber feeder plant) that is used to transmit packetized information. Moreover, *the rules we adopt herein do not require incumbent LECs to provide unbundled access to any electronics or other equipment used to transmit packetized information over hybrid loops, such as the xDSL-capable line cards installed in DLC systems* or equipment used to provide passive optical networking (PON) capabilities to the mass market.[12]

As this ruling shows, the FCC has made it clear that ILECs are not required to unbundle the broadband capabilities of their hybrid loops. In proceedings in other states, Covad has stated that Qwest could satisfy Covad's "alternative service" proposal by providing access to the broadband capabilities of hybrid loops, clearly suggesting that a purpose of its proposal is to obtain access to these hybrid facilities. Its attempt to obtain this access violates the *TRO*.

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[12] *TRO* at ¶ 288. (Footnotes omitted and emphasis added).

Q. IS THIS FCC RULING RELATING TO HYBRID LOOPS RELEVANT TO COVAD'S REVISED PROPOSAL FOR COPPER RETIREMENT?

A. Yes. As stated, Qwest is concerned that the underlying intent of Covad's new proposal is to gain unbundled access to the broadband capabilities of hybrid loops -- precisely what the FCC rejected in the *TRO*. In this regard, it is significant that Covad has not offered a definition of the "alternative service" that Qwest would have to provide before retiring a copper facility. Given the complete vagueness of that term, if the proposal were adopted, it is probable that Covad would claim that access to the broadband capabilities of hybrid loops is the "alternative service" to which it would be entitled. A requirement for Qwest to provide that access would directly violate the FCC's ruling relating to hybrid loops.

Covad's testimony further suggests Covad's intent to obtain unbundled access to hybrid loops through the proposed "alternative service" requirement. Mr. Zulevic states at page 19: "Conversely, of course, Qwest could interpret it in a number of ways, which would meet Covad's needs and not require Qwest to maintain copper plant it otherwise would have retired." The only way Qwest would not be required to maintain the copper plant is if it provided the "alternative service" by unbundling its hybrid feeder fiber to provide unbundled access to the electronics or other equipment used to transmit packetized information over hybrid loops, such as the xDSL-capable line cards installed in digital loop carrier systems.

1 **Q. AT PAGE 12 OF HIS TESTIMONY, MR. ZULEVIC ASSERTS THAT**
2 **COVAD'S PROPOSAL PROMOTES "PARITY" BECAUSE IT WOULD**
3 **RESULT IN COVAD AND ITS RETAIL DSL CUSTOMERS HAVING**
4 **ACCESS TO "EQUIPMENT" THAT QWEST USES TO PROVIDE DSL**
5 **CUSTOMERS TO ITS CUSTOMERS. IS COVAD ENTITLED TO**
6 **HAVE ACCESS TO THAT EQUIPMENT?**
7 A. No. Although he does not state it expressly, the "equipment" that Mr. Zulevic is
8 referring to are xDSL-capable line cards, the type of next-generation equipment that
9 the FCC specifically declined to require ILECs to unbundle in the *TRO*. As
10 demonstrated by the FCC ruling set forth above, Qwest is under no obligation to
11 provide unbundled access to its xDSL-capable line cards. Covad's attempt at
12 requiring this unbundling in the name of "parity" is an obvious attempt to circumvent
13 the FCC's ruling in the *TRO*. Its attempt to obtain this impermissible unbundling
14 through its use of the vague "alternative service" requirement should be rejected by
15 this Commission, as it already has been in Colorado, Minnesota, and Washington.

16 **Q. AT PAGE 12 OF HIS TESTIMONY, MR. ZULEVIC ALSO ATTEMPTS**
17 **TO SUPPORT HIS "PARITY" CONTENTION BY STATING THAT**
18 **COVAD'S PROPOSAL WOULD PERMIT UNBUNDLED ACCESS**
19 **ONLY TO THE EQUIPMENT QWEST ALREADY HAS IN PLACE TO**

PROVIDE DSL SERVICE TO ITS OWN CUSTOMERS. DOES THE COVAD LANGUAGE AT 9.1.15.1 HAVE ANY SUCH LIMINATATION, AS MR. ZULEVIC CLAIMS?

A. No. The first point, of course, is that Covad is not entitled to any unbundled access to this type of next-generation equipment. But, even if the FCC had not expressly disallowed such unbundled access, Covad's proposal would not result in parity. As is clear from Mr. Zulevic's use of the words "would be able to provide," and Covad's proposed 9.1.15.1 use of the words ". . .which Qwest itself could provide a retail DSL service" Covad's alternative service proposal would require Qwest to install and provide access to the next-generation equipment on any Qwest loop over which Qwest *could* provide DSL service to its own customers, not just access to the existing equipment on loops that Qwest is actually using to provide DSL service. Clearly, Covad's proposed interconnection agreement language does not limit Covad's access to loops over which Qwest is actually providing DSL service to its customers. Accordingly, Covad is not seeking "parity" between its DSL customers and Qwest's customers; instead, it is seeking to require Qwest to provide Covad with access to next-generation equipment even in situations where Qwest's own customers are not served by such equipment.

Q. AT PAGE 17 OF HIS TESTIMONY, MR. ZULEVIC IDENTIFIES QWEST DSL VOLUME PLAN AGREEMENT ("VISP") AS AN ALTERNATIVE SERVICE QWEST COULD PROVIDE. ISN'T VISP ALREADY AVAILABLE FOR COVAD TO PURCHASE?

A. Yes, VISP is already available for Covad to purchase and can be utilized when a hybrid loop serves the end user location. However, Mr. Zulevic is proposing that Qwest be required to provide access to Qwest DSL Volume Plan Agreement, or "VISP service," apparently at the state-prescribed recurring rate for the high frequency portion of the unbundled loop. I am inferring that Covad advocates that rate based on Covad's proposal that any "alternative service" that Qwest provides should not increase the cost to Covad or its end-user (a position reflected in the Covad proposed language for section 9.2.1.2.3.1 of the ICA and Mr. Zulevic's testimony at page 13).

Under Covad's proposal, Qwest would be permitted to charge the monthly recurring rate of $2.42 for the alternative service, since Covad is currently paying Commission-prescribed monthly rate of $2.42 for access to the high frequency portion of the unbundled loop. That rate would serve as a cap on Qwest's cost recovery under Covad's proposal, regardless of the amount of the costs Qwest would incur to provide an alternative service. This artificial cap could prevent Qwest from recovering its costs in violation of the Act's cost recovery requirement. Despite Covad's claims to

1 the contrary, a rate of $2.42 may not allow Qwest to recover its costs of providing
2 VISP or any other "alternative service" a CLEC may demand.

3 In addition, it plainly is not appropriate to use the cost of one service to set the rate
4 for potentially an entirely different service. If the Covad proposal is adopted, neither
5 Qwest nor this Commission could attest that all line sharing rates accurately reflect
6 the costs of providing such services at the conclusion of these proceedings.

7 If the estimated savings for Covad of $2,400 set forth at page 25 of Mr. Zulevic's
8 testimony (the flip side of the Qwest revenue lost) is an accurate statement of the
9 amount at stake here, one wonders why Covad is going through the resource-
10 intensive exercise of seeking arbitration of this issue, particularly when Covad is
11 essentially asking the Commission to disregard federal law governing the treatment of
12 the unbundling of such services.

13 **Q. DOES MR. ZULEVIC'S TESTIMONY SUPPORT COVAD'S CLAIM**
14 **THAT THE RETIREMENT OF COPPER FACILITIES WILL LEAD**
15 **TO SIGNIFICANT SERVICE DISRUPTIONS FOR COVAD'S**
16 **CUSTOMERS?**

17 A. No. On the contrary, Mr. Zulevic emphasizes at page 22 of his testimony that Qwest
18 fiber placement activates have not impacted Covad and that "we reasonably assume

that the impact will not be huge." He states that Covad has similarly experienced minimal impact in BellSouth's region even though, according to his testimony, BellSouth "has been far more aggressive than Qwest in replacing copper with fiber."[13]

Q. GIVEN THE VERY LIMITED SCOPE OF ANY POTENTIAL SERVICE DISRUPTIONS RESULTING FROM QWEST'S RETIREMENT OF COPPER LOOPS, IS IT REASONABLE FOR COVAD TO PROPOSE THE RETIREMENT CONDITIONS IT IS SEEKING?

A. No. Under Covad's proposal, every time Qwest retires a copper loop that is serving a Covad customer, it would be required to provide an "alternative service" over a "compatible facility." Although Covad does not define this "alternative service," providing such a service would almost certainly require Qwest to incur costs that, under Covad's proposal, Qwest would not be entitled to recover. It would be illogical to impose such an ambiguous and potentially costly requirement when, as Mr. Zulevic emphasizes, Covad does not expect any significant problems resulting from Qwest's retirement of copper loops over the remaining few years of grandfathered line sharing arrangements.

[13] Zulevic Direct at 22.

1 Moreover, as I discuss in my direct testimony, Covad's requirements would reduce
2 Qwest's incentive to deploy fiber facilities.[14] If Qwest is faced with the costs of either
3 continuing to maintain copper facilities or providing an "alternative service" over
4 "compatible facilities" each time it considers whether to replace copper facilities with
5 fiber, the economics of that decision will be changed in a way that will make the
6 deployment of fiber less likely. It would be nonsensical to create this disincentive
7 given Covad's acknowledgement that it does not expect Qwest's retirement of copper
8 loops to lead to any significant service disruptions.

9 **Q. DOES MR. ZULEVIC'S TESTIMONY PROVIDE ANY ADDITIONAL**
10 **INFORMATION CONCERNING WHETHER COVAD'S PROPOSED**
11 **CONDITIONS ARE CONSISTENT WITH THE GOAL OF**
12 **INCREASING NETWORK EFFICIENCY?**

13 A. Yes. Mr. Zulevic demonstrates the inefficiency of Covad's proposal. At page 9 of his
14 direct testimony, he acknowledges that "the maintenance costs for fiber cable are
15 much lower than they are for copper, resulting in long-term cost savings once fiber
16 and the associated equipment is in place." Under Covad's proposal, if Qwest chose
17 not to provide an "alternative service" upon deploying fiber facilities, it would be
18 required to incur *both* the substantially higher maintenance costs for copper and the

[14] Stewart Direct at 10-12.

1 lower maintenance costs for fiber. That result would be very inefficient and would
2 further reduce Qwest's incentive to deploy fiber. Qwest should not be encumbered by
3 conditions that prevent it from realizing the network and cost efficiencies that can be
4 achieved by deploying fiber facilities.

5 **Q. IS MR. ZULEVIC CORRECT IN SUGGESTING AT PAGE 9 OF HIS**
6 **TESTIMONY THAT COVAD'S PROPOSED CONDITIONS WILL**
7 **PRESERVE CONSUMER CHOICE?**

8 A. No. Mr. Zulevic is viewing "consumer choice" from a perspective that is too narrow.
9 He is focusing on the choice of what is, by his own acknowledgement, only a
10 "handful" of customers at most. The more relevant perspective is how the
11 deployment of fiber facilities affects overall consumer choice, not just the choice of a
12 very small number of individual consumers. From that perspective, it is clear that the
13 replacement of copper facilities with fiber significantly adds to consumer choice, as
14 the deployment of fiber substantially increases the bandwidth that is available and
15 allows a carrier to deploy voice, data, and video services over a single loop. Mr.
16 Zulevic himself acknowledges that the additional bandwidth provided by fiber
17 increases competition, and in turn consumer choice, when he states at page 9 of his
18 direct testimony that it allows Qwest "to compete with the cable companies for
19 virtually all the services cable customers generally subscribe to." It is this type of

1 increased competition, brought about through the deployment of fiber that generates
2 true facilities-based competition and increased consumer choice.

3 Moreover, even for the handful of Covad customers that potentially could be affected
4 by the retirement of copper loops, it is not at all clear that they would lose "consumer
5 choice" by being unable to obtain service from Covad. Even if Qwest does not leave
6 copper loops in service, Covad can continue providing service to its customers served
7 over those loops by deploying remote DSLAMs. While Mr. Zulevic states at page 24
8 of his testimony that it is does not make sense for Covad to deploy DSLAMs, in the
9 *TRO*, the FCC specifically sought to promote CLEC investment in remote DSLAMs
10 and other next-generation network equipment. In ruling that ILECs do not have to
11 unbundle packetized fiber loops, as discussed above, the FCC found that giving
12 CLECs access to copper distribution subloops instead of packetized fiber loops would
13 "promote competitive CLEC investment in next generation equipment (*e.g.*, packet
14 switches, remote DSLAMs, etc.) and transmission facilities (*e.g.*, fiber loop facilities
15 built to points in incumbent LEC networks closer to the home)."[15] Thus, the FCC
16 seems to believe that it is economically feasible for CLECs to deploy remote
17 DSLAMs.

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[15] *TRO* at ¶ 291.

1 **Q. IN HIS DISCUSSION OF "RETIREMENT OF COPPER FACILITIES,"**
2 **MR. ZULEVIC STATES ON PAGE 8 OF HIS TESTIMONY THAT**
3 **PRIOR TO THE *TRO*, COVAD "COULD PROVIDE DSL SERVICE TO**
4 **END USERS OVER HYBRID COPPER-FIBER LOOPS IF A PACKET**
5 **SWITCHING FUNCTIONALITY -- AN ILEC DSLAM -- EXISTED ON**
6 **THAT LINE." IS THAT STATEMENT COMPLETE?**
7 A. No. Mr. Zulevic's statement seems to imply that prior to the *TRO*, Covad had access
8 to unbundled packet switching ("UPS") if Qwest had deployed UPS. However, in the
9 *UNE Remand Order*, the FCC ruled that ILECs are not required to provide access to
10 UPS except in limited circumstances:

11 *We decline at this time to unbundle the packet switching functionality,*
12 *except in limited circumstances.* Among other potential factors, we
13 recognize that the presence of multiple requesting carriers providing
14 services over their own packet switches is probative of whether they
15 are impaired without access to unbundled packet switching. The
16 record demonstrates that competitors are actively deploying facilities
17 used to provide advanced services to serve certain segments of the
18 market – namely, medium and large business – and hence *they cannot*
19 *be said to be impaired in their ability to offer service*, at least to these
20 segments without access to the incumbent's facilities.[16]
21
22 Under this ruling, Covad was required to place a DSLAM at a remote terminal where
23 hybrid loops were deployed if Qwest had deployed a DSLAM at a remote terminal.

---

[16] Third Report and Order and Fourth Further Notice of Proposed Rulemaking, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, 15 FCC Rcd 3696 at ¶ 306 (1999) ("*UNE Remand Order*").

1 Covad was entitled to UPS in this scenario only if, among other criteria, Qwest had
2 deployed a remote DSLAM while concurrently not permitting Covad to deploy its
3 own remote DSLAM. Mr. Zulevic's statements suggest that under the terms of the
4 *UNE Remand Order*, Covad would never have been required to locate a DSLAM at a
5 remote terminal and was entitled to access to UPS. That is not a correct statement of
6 the FCC's pre-*TRO* rules.[17]

7 **Q. AT PAGES 29-31 OF HIS TESTIMONY, MR. ZULEVIC ASSERTS**
8 **THAT THE NOTICE QWEST HAS COMMITTED TO PROVIDE TO**
9 **CLECS WHEN IT IS RETIRING COPPER FACILITIES IS**
10 **INADEQUATE. ARE HIS CRITICISMS JUSTIFIED?**

11 A. No. In response to CLEC concerns, Qwest has agreed to send an e-mail notification
12 to all CLECs at the time it posts the network disclosures regarding copper
13 retirements. CLECs routinely use Qwest's network disclosure postings to obtain
14 information about Qwest's network. This process for disseminating information to
15 CLECs is efficient and, contrary to the suggestion in Mr. Zulevic's testimony, is not
16 burdensome for CLECs. The combination of Qwest's e-mail notifications and its
17 postings of network disclosures ensure that CLECs will receive notifications of any

[17] *See* pre-*TRO* 47 CFR 51.319 (c)(5) (establishing four requirements for access to unbundled packet switching).

1 plans to retire copper facilities. Finally, Qwest has agreed in its proposed language to
2 comply with all applicable FCC rules relating to notice, thereby ensuring that Covad
3 will receive the notice it is entitled to under the FCC's rules.

4 **Q. HAVE THE ALJS IN THE MINNESOTA AND WASHINGTON**
5 **ARBITRATIONS ADDRESSED COVAD'S DEMANDS RELATING TO**
6 **NOTICE?**

7 A. Yes. The ALJs in both the Minnesota and Washington arbitrations specifically
8 considered and rejected Covad's notice demands. The Washington ALJ found that
9 the information Covad is requesting Qwest to provide in notices "may be
10 burdensome." She adopted Qwest's language, explaining: "Given that Qwest
11 commits to providing the information required by the FCC rules, such as the location
12 of the facilities to be retired, the issue is resolved in favor [of] Qwest's language for
13 Section 9.1.15 and 9.2.1.2.3."[18] The Minnesota ALJ similarly found that Covad's
14 demands relating to notice are unnecessary and improperly attempt to shift
15 responsibility from Covad to Qwest. In rejecting Covad's demands, she explained
16 that "the issue seems to be that Covad wants Qwest to assume the responsibility for
17 doing the research in advance and to put the results in the notice, or to put directions
18 for using the Qwest website in the notice. The latter seems redundant when, by law,

[18] Washington Arbitrator's Report at ¶ 36.

1 the name and telephone number of a contact person who can provide additional
2 information about the planned change must be on the notice. Qwest has met its
3 burden of proving that the information it provides is sufficient to comply with 47
4 U.S.C. § 51.327."[19]

5 **Q. IS THERE A CERTAIN ASPECT OF COVAD'S PROPOSAL**
6 **RELATING TO NOTICE THAT CAUSES YOU PARTICULAR**
7 **CONCERN?**

8 **A.** Yes. Among Covad's unreasonable notice demands is its proposal that would require
9 Qwest to inform Covad whether the retirement of a copper loop will effect the service
10 Covad is providing to specific customers. While Qwest provides network facilities to
11 Covad, it does not know the specific services Covad is providing to its customers
12 over these facilities. A requirement for Qwest to tell Covad whether service to its
13 customers would be affected by the retirement of a copper loop would therefore
14 require Qwest to speculate about the services Covad is providing. If Qwest guessed
15 wrong, Covad would undoubtedly seek recourse and attempt to hold Qwest
16 responsible. Qwest should not be put in that unfair position.

[19] Minnesota Arbitrator's Report at ¶ 25 (footnote omitted).

1 **Q. IS THERE ANY MERIT TO MR. ZULEVIC'S ASSERTION AT PAGE**
2 **31 OF HIS TESTIMONY THAT IT WOULD BE "ANTI-**
3 **COMPETITIVE" FOR QWEST NOT TO IDENTIFY SPECIFIC**
4 **COVAD CUSTOMERS WHOSE SERVICE COULD BE IMPACTED BY**
5 **A COPPER RETIREMENT?**
6 A. No. Mr. Zulevic states that unless Qwest identifies the specific Covad customers who
7 may be impacted by a copper retirement, Qwest will be capable of "targeting and
8 taking Covad customers." That is a gross exaggeration. As Covad acknowledges,
9 Qwest has never disconnected a single Covad customer from service in Arizona or in
10 any of Qwest's 13 other states by retiring a copper loop. That is hardly the conduct of
11 a company that is "targeting" and trying to "take" Covad's customers away. Instead,
12 the fact that Qwest has never disconnected a Covad customer through retirement of a
13 loop demonstrates that Qwest attempts to implement its copper retirement rights in a
14 manner that minimizes or avoids service disruptions for CLEC customers. As part of
15 that policy, Qwest also provides CLECs with detailed notice of copper retirements
16 that is consistent with the FCC's requirements.

17 **III. CONCLUSION**

18 **Q. PLEASE SUMMARIZE YOUR POSITION RELATING TO THIS**
19 **ISSUE.**

1 A. Qwest has proposed language that complies fully with the FCC's requirements
2 relating to the retirement of copper facilities, and Qwest goes beyond those
3 requirements to minimize the possibility of service disruptions for Covad's customers.
4 By contrast, Covad has proposed onerous retirement conditions that are not in the
5 *TRO*, that would decrease Qwest's incentive to deploy fiber facilities, and that are not
6 supported by any actual or anticipated experience with the retirement of copper loops.
7 Accordingly, the Commission should adopt Qwest's proposed ICA language relating
8 to this issue.

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

10 A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION.	)	**DOCKET NO. T-03632A-04-0425 T-01051B-04-0425**

STATE OF Oregon
COUNTY OF Multnomah

AFFIDAVIT OF KAREN A. STEWART

: **SS**

Karen A. Stewart, of lawful age being first duly sworn, depose and states:

1. My name is Karen A. Stewart. I am a Director for Qwest Corporation in Portland, Oregon. I have caused to be filed written rebuttal testimony in Docket No. T-03632A-04-0425/T-01051B-04-0425.

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.

Karen A Stewart
Karen A. Stewart

SUBSCRIBED AND SWORN to before me this Seventeenth day of January, 2005.

Carla M Butler
Notary Public

My Commission Expires: 6/1/2007

OFFICIAL SEAL
CARLA M. BUTLER
NOTARY PUBLIC-OREGON
COMMISSION NO. 368928
MY COMMISSION EXPIRES JUNE 1, 2007

EXHIBIT
Qwest 4
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	)	Docket No. T-03632A-04-0425 T-01051B-04-0152

DIRECT TESTIMONY OF MICHAEL NORMAN

ON BEHALF OF

QWEST CORPORATION

DECEMBER 20, 2004

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IDENTIFICATION OF WITNESS

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

A. My name is Michael Norman. My business address is 700 W. Mineral Ave., Littleton Colorado. I am employed as a Director within the Technical and Regulatory Group of the Local Networks Organization of Qwest Corporation (Qwest).

Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE, AND PRESENT RESPONSIBILITIES.

A. I have been employed in the telecommunications industry for over 25 years. I began my career in 1978 as a contractor for AT&T in Washington State surveying routes to place cable in rural areas. In 1980, I was hired by Qwest (formerly Mountain Bell and then U S WEST) into the Local Network Organization. During my 14 years in the Local Network Organization I have held several different engineering positions including Outside Plant Engineering, Tactical Planning, Central Office Engineering, and Network Planning. In 1999, I was hired by Qwest Wireless as a Lead Network Engineer where I participated in building and planning a new state of the art Code Division Multiple Access ("CDMA") network.

In 2003, I began my current job as a Director in the Technical & Regulatory Group to represent Qwest in regulatory proceedings and to ensure compliance with regulatory requirements.

PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to provide technical expertise on Disputed Issue No. 5 (Regeneration Requirements (Sections 8.2.1.23.1.4, 8.3.1.9, 9.1.10)). I will demonstrate that Qwest's language for the parties' Interconnection Agreement ("ICA") is operationally and technically reasonable and consistent with the FCC's rules and regulations.

ISSUE 5: CLEC TO CLEC REGENERATION REQUIREMENTS (SECTIONS 8.2.1.23.1.4, 8.3.1.9, 9.1.10)

Q. PLEASE EXPLAIN ISSUE NO. 5.

A. Covad's proposal requires Qwest to provide channel regeneration for CLEC-to-CLEC connections as a wholesale interconnection product. Covad would have Qwest provide such service at no charge to Covad.[1]

Q. TO PUT THIS DISPUTE INTO CONTEXT, PLEASE GENERALLY DESCRIBE THE PARTIES' FUNDAMENTAL DISAGREEMENT.

A. Based upon the Parties' interpretation of the FCC's rules and regulations, the Parties disagree upon whether Qwest is required to provide a wholesale channel regeneration product on a CLEC-to-CLEC connection.

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[1] In its proposed language for sections 8.2.1.23.1.4 and 8.3.1.9, Covad appears to carve out an exception to its general request that Qwest provide regeneration on CLEC-to-CLEC connections for free, although the language is confusing.

Q. WHAT IS CHANNEL REGENERATION AND WHY IS IT NECESSARY?

A. Channel regeneration is required when the length of a circuit prevents the transmission of the proper signal strength to the point such that there is degradation in signal quality. There are industry standards, based on signal quality, that limit the length of the cables that join pieces of equipment. If the length of the cable exceeds the requirements as provided by the American National Standard Institute ("ANSI") Standard T1.102-2003 "Digital Hierarchy-Electrical Interface; Annex B" then, regeneration of the signal is required to satisfy acceptable circuit performance.

Q. WHAT IS QWEST'S POSITION REGARDING CHANNEL REGENERATION ON A CLEC-TO-QWEST CONNECTION?

A. Qwest delivers all CLEC-ordered circuits between the CLEC's collocation space and Qwest's network with the proper signal quality by first designing the circuit and then, as part of provisioning, Qwest tests the circuit to ensure the service quality is met. Qwest designs circuits to ensure that the cable between the Qwest-provided active elements and the Qwest Central Office cross-connects will meet proper signal level before delivering the circuit to the CLEC. In addition, Qwest partners with the CLEC to test both ends to maintain circuit integrity. During the 271 proceedings, charges for CLEC-to-Qwest channel regeneration were thoroughly debated and, despite being permitted by the FCC and state commissions to charge for channel regeneration on such a connection, Qwest agreed that it would not charge for providing this regeneration unless regeneration was not required by ANSI standards but was specifically requested by a CLEC.

Q. DOES THIS ARBITRATION PROCEEDING INVOLVE CLEC-TO-QWEST CHANNEL REGENERATION?

A. No. The issue in this proceeding is whether Qwest must provide channel regeneration on a CLEC-to-*CLEC* connection free of charge, not whether Qwest must provide channel regeneration on a CLEC-to-*Qwest* connection. As mentioned above, where channel regeneration is required under the ANSI standard, Qwest has agreed to provide channel regeneration at no charge to CLECs when they interconnect with *Qwest's* facilities.

Q. WHY SHOULD CLEC-TO-*QWEST* CONNECTIONS, AND ANY RESULTING REGENERATION REQUIREMENT, BE TREATED DIFFERENTLY THAN CLEC-TO-*CLEC* CONNECTIONS?

A. For connections between a CLEC and Qwest in a Qwest central office, Qwest is a party to the connection and as stated above, has agreed not to charge to regenerate a signal between it and a CLEC. The rationale behind this is that in a Qwest to CLEC scenario, Qwest is providing the CLEC with services from its network (e.g. unbundled loops) and which are purchased through the ICA. In this situation, Qwest designs the circuit and maintains the ability to test and maintain the connection because it is a party to the connection. When a CLEC, such as Covad, wants to connect with another CLEC in the central office it is pursing a business relationship that does not include Qwest. For example, CLEC A may want to use CLEC B's fiber ring rather than Qwest's network for transport. Qwest is not involved in the design of the circuit or the choice of transmission facilities between the CLECs. Qwest's involvement is limited to either providing cable routing when the CLECs

connect directly from one collocation space to another or by providing jumper wire connections between the CLEC cables that are brought to the common Interconnection Distribution Frame ("ICDF"). In each instance, the CLEC is actually self-provisioning the connection and is responsible for the circuit. If a CLEC, who is interconnecting with another CLEC or with its own non-adjacent collocation space, asks Qwest to assume responsibility for the connection from one CLEC to another, rather than doing it itself, Qwest will provide the connection with regeneration, if necessary, but will charge a market rate for the service. Qwest's ability to charge a market rate encourages the CLEC to invest in its own facilities, thereby furthering the goals of the Telecommunications Act.

Q. IS QWEST OBLIGATED BY THE FCC TO PROVIDE A CLEC-TO-CLEC CONNECTION OR REGENERATION?

A. No. In its *Fourth Advanced Services Order,* the FCC discussed CLEC-to-CLEC connections and amended 47 C.F.R. 51.323(h) to list specifically the only situations in which an ILEC has an obligation to provide a connection between the collocated equipment of two CLECs.[2] Specifically, ILECs must provide a connection between two CLEC collocation spaces: 1) if the ILEC does not permit the CLECs to provide the connection for themselves[3]; or 2) under Section 201 when the requesting carrier submits

---

[2] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, Fourth Report and Order* (*Fourth Advanced Services Order*), CC Docket No. 98-147, (FCC 01-204) Rel. August 8, 2001.

[3] Pursuant to 47 C.F.R. § 51.323(h)(1) an ILEC is not required to provide a connection if ". . . the incumbent LEC permits the collocating parties to provide the requested connection for themselves . . . ."

1 certification that more than 10 percent of the amount of traffic will be interstate.[4] Qwest
2 permits CLECs to connect to each other outside of their collocation space; therefore it has
3 removed itself from the CLEC-to-CLEC relationship and has no FCC-imposed obligation
4 to provide a CLEC-to-CLEC connection, much less regeneration for a CLEC-to-CLEC
5 connection.

6 **Q. PLEASE EXPLAIN WHAT YOU MEAN WHEN YOU SAY THAT QWEST**
7 **PERMITS CLECS TO CONNECT WITH EACH OTHER?**

8 A. Certainly. As I have explained earlier, CLECs can connect with each other in two different
9 ways. First they can perform a direct connect where CLEC A or CLEC B provides the
10 cabling between the two collocation spaces. In the second method of connection, CLEC A
11 takes its cable from its collocation to a Qwest ICDF. Likewise, CLEC B takes its cable to
12 the same ICDF and a jumper wire is run connecting the two CLECs. Through these two
13 scenarios, Qwest permits CLECs to perform either a direct connection or a cross
14 connection outside of their collocation space.[5]

---

[4] Pursuant to 47 C.F.R. § 51.323(h)(2) "[a]n incumbent LEC is not required to provide a connection between the equipment in the collocated space of two or more telecommunications carriers if the connection is requested pursuant to section 201 of the Act . . . ."

[5] See ICA Sections 8.2.1.23 and 8.2.1.23.1.

Q. WHAT OPTIONS, OTHER THAN PURCHASING A FINISHED SERVICE, ARE AVAILABLE WHEN REGENERATION IS NECESSARY TO MEET THE ANSI STANDARD ON A CLEC-TO-CLEC CONNECTION?

A. When a CLEC chooses to connect directly to another CLEC, and if regeneration is required, either CLEC may regenerate the signal from its collocation space or regenerate the signal from a mid span point between collocations, thereby boosting the signal to meet the requirements of the ANSI standard. In both situations, Qwest is not involved in provisioning the connection or resulting regeneration. Since the CLEC's facilities must traverse Qwest's route, however, pursuant to Section 8.2.1.23 of the Parties' ICA, Qwest will identify the route and provide the CLEC with information regarding the footage between it and its CLEC partner, so that the CLECs may properly design and provision the connection. CLECs connecting through ICDF have the same opportunity to boost the signal from their collocations space or at a mid-span point.

Q. ALTHOUGH QWEST IS NOT OBLIGATED TO PROVIDE CLEC-TO-CLEC CHANNEL REGENERATION, DOES QWEST OFFER CLEC-TO-CLEC CHANNEL REGENERATION?

A. Yes. In cases where regeneration is required on circuits between two CLECs, Qwest offers the connection and channel regeneration as a "finished service" to CLECs under its FCC 1 Access Tariff. Where a CLEC chooses not to provision its own circuit or hire its own contractor to provision the circuit and instead requests that Qwest provide the CLEC-to-CLEC connection requiring channel regeneration, the CLEC may purchase a private line or

1 access service from Qwest and Qwest will design the end-to-end service which will include
2 any necessary channel regeneration.

3 **Q. WHAT IS A FINISHED SERVICE?**

4 A. A finished service is a complete end-to-end service, such as a private line or access service,
5 offered by Qwest to wholesale or retail customers at the tariffed rate. The definition of
6 'finished services' was agreed to through the 271 workshops.[6]

7 **Q. WHAT IS THE BASIS FOR COVAD'S POSITION AND IS IT LEGALLY**
8 **SUSTAINABLE?**

9 A. Covad cites to the FCC's *Second Report and Order* for the proposition that Qwest should
10 provide CLEC-to-CLEC regeneration "on the same terms Qwest provides regeneration for
11 other cabling arrangements in its central offices."[7] There is nothing in the *Second Report*
12 *and Order*, however, which supports Covad's position most notably because the *Second*
13 *Report and Order* involves a discussion of ILEC to CLEC connections and not CLEC-to-
14 CLEC connections. Furthermore, Covad's implicit argument that Qwest determines
15 whether a CLEC-to-CLEC connection will require regeneration because it controls the
16 assignment of collocation space, and therefore, Qwest should be responsible for any
17 regeneration charge fails, not only because Qwest's processes for assigning collocation

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[6] *See* ICA and 14th Revised SGAT at Section 4, Definition of Finished Service.

[7] *See* Issue 5 of Covad's Petition (no page numbers are provided) *citing* In the Matter of Local Exchange Carrier's Rates, Terms and Conditions for Expanded Interconnection Through Physical Collocation for Special Access and Switched Transport, Second Report and Order, CC Docket No. 93-162, FCC 97-208 (Rel. June 13, 1997), ¶¶ 117-118 (the "*Second Report and Order*").

space are not at issue here, but also because Qwest does not make a unilateral determination of where a CLEC's collocation space will be placed. The FCC's rules require an ILEC to provide a report to a requesting carrier that details the space available in a particular central office such that the CLEC can indicate its collocation location preferences prior to the assignment of collocation space. Covad can, therefore, acquire information about space that is available in a central office and request that it be placed in a particular location in that office. In addition, Qwest offers CLECs the option of requesting a tour of its central offices to view the available space after which the CLEC may request, and Qwest will assign to CLEC any space that is available. Thus, collocation assignment is not a unilateral decision made by Qwest, and Covad's position is not sustainable under the FCC's rules and regulations, whereas, Qwest's reliance on the *Fourth Advanced Services Order* and resulting rule modifications is sound.

Q. IS COVAD'S PROPOSAL FOR QWEST TO PROVIDE REGENERATION FOR CLEC-TO-CLEC CONNECTIONS AT NO CHARGE TO COVAD REASONABLE?

A. No. Covad's requested language would require Qwest to provide regeneration free of charge for any and all hypothetical future joint ventures and circuit arrangements at no charge to CLECs. Covad makes such a request under the unfounded assumption that Qwest purposely provisions collocation space for CLECs on different floors or at opposite corners of the central office, thereby making regeneration necessary, and thereby increasing the cost of CLEC cross-connections. On the other hand, in his direct testimony filed in Phase II of the wholesale cost docket CLEC representative Rex Knowles states: "Often,

such equipment is located only a short distance away because Qwest generally groups collocating CLECs together within the wire center."[8]

Qwest provides collocation space on a first come first served basis, and therefore does not control the timing of individual CLEC collocation requests, the amount of space requested, or the evolution of CLEC relationships. It is predictable that CLEC business decisions over time may require circuit connections that need regeneration. It is unreasonable to expect Qwest to absorb the cost of regeneration when Qwest is not involved in the exchange of traffic or the provision of any service related to the interconnection between third parties.

SUMMARY AND CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY?

A. As set forth above, Qwest's language on this disputed issue is consistent with Qwest's obligations under the FCC's rules and regulations, while Covad's proposed language has no sustainable basis in law. Accordingly, the Commission should adopt Qwest's language on this disputed issue.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

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[8] Phase II Wholesale Cost Docket proceeding CLEC witness Rex Knowles, XO Regulatory V.P. filed May 16, 2001 on Page 15, lines 10 and 11.

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION.	)	**DOCKET NO. T-03632A-04-0425 T-01051B-04-0425**

STATE OF COLORADO
COUNTY OF ARAPAHOE

AFFIDAVIT OF MICHAEL NORMAN

: **SS**

Michael Norman, of lawful age being first duly sworn, depose and states:

1. My name is Michael Norman . I am a Director for Qwest Corporation in Littleton, Co. I have caused to be filed written Direct and Response testimony in Docket No. T-03632A-04-0425, T-01051B-04-0425.

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.

SUBSCRIBED AND SWORN to before me this 13th day of December, 2004.

Notary Public

My Commission Expires: 4/5/2008

DONNA GOLDMAN
STATE OF COLORADO
NOTARY PUBLIC

EXHIBIT
Qwest 5
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	))))))	Docket No. T-03632A-04-0425 T-01051B-04-0452

REBUTTAL TESTIMONY OF MICHAEL NORMAN

ON BEHALF OF

QWEST CORPORATION

[Public Version]

JANUARY 18, 2005

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I. IDENTIFICATION OF WITNESS

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

A. My name is Michael Norman. My business address is 700 W. Mineral Ave., Littleton Colorado. I am employed as a Director within the Technical and Regulatory Group of the Local Networks Organization of Qwest Corporation (Qwest).

Q. ARE YOU THE SAME MICHAEL NORMAN WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS ARBITRATION PROCEEDING?

A. Yes, I am.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the direct testimony filed by Mr. Mike Zulevic of Covad regarding CLEC-to-CLEC regeneration (Sections 8.2.1.23.1.4, 8.3.1.9, 9.1.10). My reply to Mr. Zulevic's direct testimony is written in sequential order to help dispel continued misunderstanding introduced by Covad.

III. ISSUE 5: CLEC TO CLEC REGENERATION REQUIREMENTS (SECTIONS 8.2.1.23.1.4, 8.3.1.9, 9.1.10).

Q. IN HIS TESTIMONY MR. ZULEVIC SUGGESTS THAT WHEN REGENERATION IS REQUIRED BETWEEN TWO CLECS OR BETWEEN A CLEC'S NON-ADJACENT COLLOCATION LOCATIONS, IT IS THE RESULT OF QWEST'S INEFFICIENT ASSIGNMENT OF COLLOCATION SPACE, AND, THEREFORE, QWEST SHOULD BE REQUIRED TO PROVIDE THE NECESSARY REGENERATION FREE OF CHARGE. IS THIS AN ACCURATE ANALYSIS?

A. No. It is critical to point out that what Covad is asking for is an order from this Commission requiring Qwest to provide regeneration for free even when Qwest is simply not involved with services being provided to the end user customer. Let me explain what I mean. First, with a CLEC to CLEC cross-connection, Qwest's involvement in the overall plan and design of the CLEC's network is non-existent except when the CLEC submits to Qwest an application for collocation space. In the submittal process, the CLEC requests that Qwest provide space and terminations but Covad is not asked and does not provide to Qwest a business model or plan specifying what type of service offerings the CLEC will be providing to its end-user customer.

Second, traditionally Qwest and Covad provided services jointly to a common customer by sending their respective signals to a common point within the Qwest network where those signals could then be merged in order to transmit them over a common line or wire to the end user customer. This is an ILEC (Qwest) to CLEC relationship. In that situation, if the signal needs regeneration, Qwest will provide the regeneration, and has agreed to do so at no charge, because those signals are provided to a Qwest customer, using the Qwest network. In such a

1 situation, Qwest is part of the transaction and has responsibility for the overall design and
2 operation of the circuit.

3 Covad has now developed a business plan whereby it will "partner" with other CLECs in order
4 to provide service to a non-Qwest customer. Such a business plan requires Covad to connect
5 with another CLEC, i.e. establish a CLEC to CLEC connection, and Qwest is not a party to that
6 relationship. Absent any involvement in the relationship, and as I discuss in my direct
7 testimony, since there is no FCC requirement that Qwest provide regeneration in such a
8 situation, Qwest should not be required to bear the cost of Covad's new business plan.

9 **Q. ON PAGE 33, MR. ZULEVIC POINTS TO EXHIBIT A OF THE ARIZONA SGAT**
10 **WHICH RELECTS QWEST'S AGREEMENT NOT TO CHARGE FOR**
11 **REGENERATION ON AN ILEC-TO-CLEC CONNECTION. IS THIS RELEVANT TO**
12 **COVAD'S POSITION HERE?**

13 A. No. Covad has improperly confused the concepts of an ILEC-to-CLEC connection with a
14 CLEC-to-CLEC connection. As I state in my direct testimony, Qwest has agreed not to charge
15 for regeneration on an ILEC-to-CLEC connection, and Exhibit A to the Arizona SGAT reflects
16 that agreement.[1] The rationale behind this is that in a Qwest to CLEC scenario, Qwest is a party
17 to the connection, and provides a service to the end-user customer. In a CLEC-to-CLEC
18 connection, Qwest is not involved in the relationship between the two CLECs, has no control or
19 involvement in the facilities shared between them, and does not provide a service to the CLEC
20 end-user customer. However, if a CLEC requests that Qwest establish the cross connect

between that CLEC and its third party partner even though that CLEC could provision its own facility, Qwest will provide the facility, including the testability, but will charge a market rate for that connection.

Q. ON PAGES 34-35 OF MR. ZULEVIC'S DIRECT TESTIMONY HE PROVIDES A TECHNICAL EXPLANATION OF WHY A SIGNAL MAY REQUIRE REGENERATION EVEN IF TWO COLLOCATION LOCATIONS ARE CLOSE TO ONE ANOTHER. DOES QWEST AGREE WITH HIS ASSESSMENT?

A. Not entirely. Qwest agrees that there are industry standards which must be considered when engineering a cable route within a central office between collocation locations, and that those standards may require a cable length that exceeds the physical distance between the collocations. It is important to note, however, that by definition the industry standards are not determined by Qwest, and therefore, in following the industry standards Qwest would not create a regeneration requirement for a CLEC to connect to another CLEC. The standards are the standards and Qwest, like Covad, must adhere to those standards. Qwest disagrees with Mr. Zulevic's statement on page 35 that there would ever be a situation whereby several hundred feet of cable could be required even if collocation spaces are physically 10 feet apart.

[1] See ICA and 14th Revised SGAT Exhibit A.

Q. MR. ZULEVIC DISCUSSES NEW LANGUAGE FOR SECTIONS 8.2.1.23.1.4 AND 8.3.1.9 ON PAGES 36 AND 37. DOES THIS LANGUAGE ALTER QWEST'S POSITION?

No. Instead of the language originally proposed in its petition, Mr. Zulevic has set forth a new, un-negotiated proposal. For Section 8.2.1.23.1.4 Covad proposes the following new sentence: "Qwest shall assess charges for CLEC-to-CLEC regeneration, if any, on the same terms and conditions, and at the same rates as for ILEC or Qwest-to-CLEC regeneration." As with its original proposal, this new proposal asks this Commission to order Qwest to provide regeneration for free, even when Qwest is a bystander to the services Covad and its partner are providing to their customer. Since Covad is not sending its signals through Qwest's network or combining those signals with a Qwest signal to serve a common customer but, is instead sending its signal in combination with another CLEC to serve a common Covad/CLEC customer then, absent a legal requirement, Qwest should not be ordered to provide regeneration free of charge.

Q. IS QWEST'S POSITION ON CLEC-TO-CLEC REGENERATION ANTI-COMPETITIVE AS MR. ZULEVIC SUGGESTS ON PAGES 37-38?

A. No. Mr. Zulevic implies that the FCC's efficiency requirements as they pertain to the assignment of collocation space serve as the foundation upon which this Commission should order Qwest to provide CLEC-to-CLEC regeneration free of charge. Qwest is mandated by the FCC to manage collocation space on a first come, first served basis in a just, reasonable, and non-discriminatory manner. Qwest provisions collocation space on a "first come first served

1 basis" and encourages the CLEC to forecast its space needs in order to adequately plan for
2 space requirements. Each request is evaluated based upon space availability at the time it is
3 received to determine the most appropriate location in the premises to fulfill the CLEC's needs.
4 If the request is for additional space (i.e., an augment to the initial space), Qwest attempts to
5 make contiguous space available. If adjoining space is not available, Qwest engineers a route
6 between the CLEC's collocation spaces to provide cable racking connecting a CLEC's non-
7 adjoining collocation spaces. If regeneration is required between CLEC collocation spaces, it is
8 not because Qwest has made a discriminatory decision regarding assignment of collocation
9 space.

10 Mr. Zulevic's assumption that a CLEC who orders collocation today will be located far away
11 from Qwest or a CLEC who ordered collocation in 1999 is inaccurate. Qwest does not
12 determine if and when a CLEC will enter into an interconnection relationship with another
13 CLEC and certainly does not force any CLEC into any type of architecture. Collocation spaces
14 can be abandoned or decommissioned by CLECs thereby freeing up space for CLECs seeking
15 collocation space. Therefore, there is no way to predict what collocation spaces will be
16 available for assignment at any given time, and based upon the currently available space in the
17 majority of Qwest's central offices across the region, Mr. Zulevic agrees that the need for
18 regeneration would be the exception rather than the rule.[2]

[2] Zulevic Direct P.42 L. 11-16

Q. WHAT IF THE CLEC IS NOT SATISFIED WITH THE ASSIGNED SPACE PROVIDED BY QWEST? WILL QWEST WORK WITH THE CLEC TO DETERMINE IF AN ALTERNATIVE LOCATION IS AVAILABLE?

A. Yes. Qwest first provides the CLEC with a feasibility form which indicates first choice, second choice, desired space, and availability. The feasibility study confirms the location reserved pursuant to the CLEC's request for collocation. If the CLEC is not satisfied with the assigned location, Qwest will allow a CLEC representative to tour the entire premises escorted by Qwest personnel. If an alternative location is identified and requested by the CLEC on the site visit and this location is available, Qwest will reserve that space for the CLEC. Furthermore, pursuant to section 8.2.1.9 of the ICA, a CLEC may request a space availability report that includes the following:

a) available Collocation space in a particular Qwest Premises;

b) number of collocators;

c) any modifications in the use of the space since the last report;

d) measures that Qwest is taking to make additional space available for Collocation;

e) whether sufficient power is available to meet the specific CLEC request;

f) number of CLECs in queue at the Premises, if any;

g) whether the Wire Center is equipped with DS3 capability; and

h) the number and description of Qwest and its Affiliates and CLEC reservations of space.

Prepared with this information, a CLEC can request specific available collocation space in a Qwest central office and then design its facilities in a way that is most efficient for its specific business plan. Thus, contrary to the assertion of Mr. Zulevic, Qwest does not unilaterally

1 decide where to place a CLEC's collocation facilities, and Qwest does not purposely separate a
2 CLEC from connecting to itself, or with another CLEC, in order to create a distance that would
3 require regeneration.

4 **Q. ON PAGE 38 MR. ZULEVIC ASSERTS THAT THE FCC RULES, SPECIFICALLY 47**
5 **C.F.R. § 51.323(h), SUPPORTS COVAD'S CLAIM THAT REGENERATION SHOULD**
6 **BE PROVIDED BY QWEST FOR FREE. DO YOU AGREE?**

7 A. No. As set forth in this FCC rule, Qwest is not required to provide CLEC cross connections *if*
8 *Qwest permits CLECs to provide their own cross connections.* Under the undisputed terms of
9 Section 8.2.1.23.1 of the proposed ICA Qwest allows CLECs to provide their own cross
10 connections. Thus, where there is no obligation to provide the cross connection, there can be no
11 obligation to ensure that the connection meets ANSI standards. In other words, there is no
12 obligation for Qwest to provide regeneration.

13 **Q. BEGINNING ON PAGE 38 OF HIS DIRECT TESTIMONY, MR. ZULEVIC CITES TO**
14 **SECTION 251(C)(6) OF THE ACT, THE FOURTH ADVANCED SERVICES ORDER**
15 **AND 47 C.F.R. § 51.323(H) FOR THE PROPOSITION THAT QWEST MUST CHARGE**
16 **THE SAME RATE FOR A CLEC TO CLEC CONNECTION AS IT DOES FOR AN**
17 **ILEC TO CLEC CONNECTION. DO YOU AGREE WITH HIS RATIONALE?**

18 A. No. Section 251(c)(6) of the Act generally discusses an ILEC's responsibilities regarding
19 collocation. It defines Qwest's duty to provide access "on rates, terms, and conditions that are
20 just, reasonable, and non-discriminatory for physical collocation of equipment necessary for
21 interconnection or access to unbundled network elements at the premises." As mentioned in my

1 direct testimony, the Fourth Advanced Services Order lead to an amendment of 47 C.F.R.
2 §51.323(h) whereby the FCC enumerated those instances when an ILEC must provision a
3 CLEC to CLEC connection. By virtue of Qwest's willingness to permit CLECs to provision
4 their own cross-connections, the requirements of 47 C.F.R. §51.323(h) are not applicable to
5 Qwest, and Mr. Zulevic's argument is without merit.

6

7 **Q. PLEASE COMMENT UPON MR. ZULEVIC'S TESTIMONY ON PAGES 41-42**
8 **WHERE HE DISCUSSES AN EXPERIENCE REGARDING THE MINNEAPOLIS**
9 **DOWNTOWN CENTRAL OFFICE?**

10 A. In researching Covad's history of collocation in the Minneapolis Downtown central office, I
11 found that Covad has never rejected a Qwest collocation assignment proposal out of BEGIN
12 CONFIDENTIAL ___ END CONFIDENTIAL jobs requesting collocation in that office. In
13 fact, there is no documentation suggesting that in Qwest's region, Qwest has ever denied a
14 Covad request for a specific space assignment. Covad has accepted each feasibility study and
15 resulting collocation assignment and only requested one change in Minneapolis, which Qwest
16 satisfied by moving Covad's collocation space. Furthermore, I am unaware of any documents
17 supporting Mr. Zulevic's testimony.

18

19 In Arizona, between 1999 and 2004, Covad requested collocation space from Qwest BEGIN
20 CONFIDENTIAL:
21 END CONFIDENTIAL that were either cancelled by Covad or the job

expired for unknown reasons to Qwest. Further, with the existing space that is available for such collocation requests, Mr. Zulevic's speculation that Covad may find itself in a situation where regeneration will commonly be required is inaccurate.

Q. MR. ZULEVIC SUGGESTS ON PAGE 42 LINE 16 THROUGH PAGE 43 LINE 5 THAT SPACE AVAILABILITY WILL EVENTUALLY BE "LESS AVAILABLE" AND FURTHER SUGGESTS THAT WITH THE CHANGING COMPETITIVE ENVIRONMENT "THE NEED TO CONNECT COLLOCATIONS WITHIN THE SAME CENTRAL OFFICE WILL ALSO INCREASE", THE IMPLICATION BEING THAT QWEST SHOULD BE REQUIRED TO PROVIDE REGENERATION AT NO COST FOR CLEC-TO-CLEC CONNECTIONS BECAUSE OF THIS CHANGE IN THE INDUSTRY. IS THIS REASONABLE?

A. No. ~~No~~ MN. In fact, for Phoenix Main and Scottsdale Main space availability is such that if a CLEC were to request space, both cageless and caged collocation is available at eighty percent discount to the CLEC. Based upon current availability, Qwest does not anticipate denying a collocation request due to space exhaustion in the foreseeable future. It is predictable that CLEC business decisions over time may require circuit connections that need regeneration. It is unreasonable to expect Qwest to absorb the cost of regeneration as the result of third party partnerships, when Qwest is not involved in the exchange of traffic or the provision of any service related to the interconnection between third parties. Qwest cannot control the timing of individual CLEC collocation requests, the amount of space requested, or the evolution of CLEC relationships. Though Qwest always stands ready to assist Covad and its CLEC partner by

providing regeneration of the joint circuit between them, if necessary, Qwest will not provide this capability for free, nor should Qwest be required to provide it on a wholesale basis at TELRIC rates.

Q. PLEASE COMMENT ON MR. ZULEVIC'S TECHNICAL DISCUSSION REGARDING SIGNAL STRENGTH ON PAGE 43 OF HIS TESTIMONY.

A. Mr. Zulevic attempts to explain a complex technology; however, his explanation over simplifies the engineering principles. Central office design has many more variables associated with the overall design of each and every circuit connection. His proposed network architectural solution, mid-span regeneration, is only one of multiple possible solutions. In his testimony, Mr. Zulevic puts forth a proposal based on flawed assumptions. If a Covad circuit is actually designed per ANSI standards as claimed by Mr. Zulevic the signal strength would not necessarily leave Covad's equipment at "optimum signal strength."[3] In fact, it is common practice for a carrier to design a circuit leaving its equipment at less than optimal strength based on the "design to" point.[4]

Covad and its CLEC partner could regenerate the signal traveling between them from either of their collocation spaces to a "Design-To" point in order to meet the ANSI standards described by Mr. Zulevic. They could also purchase collocation space and place repeaters in the space to

[3] Zulevic Direct P 43 L 10-18

[4] "Design-To" point where signal levels must meet ANSI standards

provide a mid-span boost. If Covad believes that a mid-span boost is more efficient from an engineering perspective, it has that option available to it.

Q. MR. ZULEVIC FURTHER EXPLAINS ON PAGE 44 THAT MID-POINT REGENERATION IS THE MOST EFFICIENT EQUIPMENT PLACEMENT METHOD IN THE CENTRAL OFFICE. DO YOU AGREE WITH THE TECHNICAL REASONS GIVEN BY COVAD TO JUSTIFY MID-POINT REGENERATION?

A. No. Mr. Zulevic explains that mid point regeneration is necessary for DS3s because a signal cannot be transmitted at a high level to reach the other end without risking "bleed over" into adjacent cabling. He further explains that a Covad regenerated signal would cause digital cross-talk and lead to spectrum interference with the signals being transmitted over all adjacent transmission cables using the same cable racking, such that signals transmitted by other carriers are completely scrambled. This is a technical issue which he uses to claim that Qwest should be required to provide mid-span regeneration for free.

Qwest designs its coaxial cable at the DS3 level by using shielded cable to purposely separate transmit signals from receive signals. The shielded cable protects the integrity of the signal from "bleeding over" whether or not 1) the cable is adjacent to another cable; 2) the cable is located in the same cable rack; or 3) when and if regeneration may be required. This is true of a DS1 design in a Qwest central office as well. Therefore, Mr. Zulevic's claim that there are technical limitations to boosting a signal at a CLEC's collocation space is simply wrong.

Q. ON PAGES 45-46 OF MR. ZULEVIC'S TESTIMONY HE DISCUSSES QWEST'S PRODUCT (COCC-X), CLAIMING THAT QWEST HAS PREVIOUSLY PROVIDED REGENRATION OF THAT CONNECTION FOR FREE. IS THAT TRUE?

A. No. Qwest has never provided the COCC-X product for free. COCC-X is a cross connect wire that serves to bridge the gap between two CLEC termination points on a common ICDF. Qwest originally offered this product at the request of the CLECs during the 271 proceedings. COCC-X cross connect is nothing more than a jumper wire on a common ICDF where the wire length ranges anywhere from 20 feet to 100 feet, and therefore would never, in and of itself ~~would~~ MN exceed the ANSI standards and require regeneration. The wire connects point A with point B. The wire would connect a Covad termination point on the ICDF with a termination point occupied by another CLEC on the same ICDF. COCC-X is provided to the CLEC only where the CLEC provides Connecting Facility Assignments ("CFA"), meaning that the CLEC must tell Qwest exactly where to connect the jumper wire on the common ICDF (i.e., the CLECs must tell Qwest where point A and point B are located on the common ICDF). Regeneration is not offered as a part of this product, because it would never be needed on a 100 ft. jumper cable. Regeneration would only be required if the distance between CLEC A and CLEC B, including the jumper cable, exceeded the ANSI standard. Where COCC-X is used, however, the CLEC is responsible for the design of the circuit from its collocation space to the ICDF and Qwest is not, nor can it be, responsible for ensuring adequate end to end signals. Qwest is responsible only for installation of the jumper wire on the common ICDF.

Q. MR. ZULEVIC EXPLAINS THAT QWEST PROPOSED UPDATES TO TECHNICAL PUBLICATION 77386 DELETING CHAPTER 15. COULD YOU PLEASE COMMENT ON WHY QWEST REMOVED CHAPTER 15 FROM ITS TECHNICAL PUBLICATION?

A. Yes. In an effort to clarify which party would provide regeneration between Qwest and the CLEC, Chapter 15 was removed, relieving the CLEC of any responsibility to provide regeneration when the *CLEC connects to Qwest (i.e., an ILEC to CLEC relationship)*. The paragraph in Mr. Zulevic's direct says "the CLEC's are no longer responsible for determining if regeneration is required, Qwest is now responsible for that determination. As a result of this change in responsibility, the tech pub is being updated to remove all statements and NC/NCI codes that indicate that the CLECs need to order regeneration, or are responsible for determining when regeneration is required." This language is specifically based on an *ILEC-CLEC* relationship. In chapter 5 of the technical publication, basic responsibilities remain the same where "the CLEC has the responsibility to design the service for their customer." This is especially true where the CLEC is engaged in a third party relationship with another CLEC to serve end user customers and Qwest is a bystander to that transaction.

Q. IN HIS TESTIMONY MR. ZULEVIC PRESENTED DOCUMENTS IDENTIFIED AS EXHIBITS MZ-6 AND MZ-7 FOR THE PROPOSITION THAT QWEST HAS AND SHOULD CONTINUE TO PERFORM ALL CROSS CONNECTION FUNCTIONS, INCLUDING REGENERATION, AS PART OF ITS COCC-X PRODUCT. DO YOU AGREE?

A. No. Nothing in the exhibits can be read to suggest that Qwest will provide CLEC-to-CLEC regeneration free of charge or that the COCC-X product includes regeneration. Additionally, there is nothing in these exhibits which refute the fact that the COCC-X product is nothing more than a jumper wire from two termination points identified by the CLEC on a common ICDF as discussed earlier in my testimony. Both of these exhibits represent discussions held between Qwest and participating CLECs in the Change Management Process ("CMP"). They include responses from Qwest informing the CLEC community what Qwest would do from a technical perspective. The responses have nothing to do with pricing of the services provided.

For example, Exhibit MZ-7 discusses a change Qwest was making to its Technical Publication #77386 ("Tech Pub"). In the change request, Eschelon was concerned that Qwest did not define how it would meet the ANSI standards on a CLEC-to-CLEC cross-connect at the ICDF. Qwest's response was that the Tech Pub change was not eliminating regeneration but, merely removing CLEC responsibility in an ILEC-to-CLEC relationship. Furthermore, this exhibit provides a detailed analysis of the connection at issue and does not discuss the cost of the product.

1 Exhibit MZ-6 predates Exhibit MZ-7, but is, in effect, the same type of discussion and response.
2 Specifically, the exhibit references a concern Eschelon had regarding Qwest's definition of how
3 it would meet the ANSI standards on a CLEC-to-CLEC cross connect through the ICDF and
4 asked that Qwest commit to providing a signal that adhered to the ANSI standards. Once again,
5 Qwest assured the CLEC community that it would adhere to the ANSI standards on an ILEC-to-
6 CLEC connection. As with Exhibit MZ-7, there is nothing in Exhibit MZ-6 suggesting that if
7 regeneration was required under the ANSI standards on a CLEC-to-CLEC cross connect, that
8 Qwest would provide such regeneration free of charge or even at a TELRIC rate. Qwest has
9 never committed to offer regeneration for free, or at TELRIC rates, for CLEC-to-CLEC cross
10 connects. And, since Qwest is essentially a bystander to the CLEC-to-CLEC relationship, there
11 is no good policy reason why Qwest should have to provide regeneration to the CLECs for free,
12 or at TELRIC rates.

13 **Q. MR. ZULEVIC SUGGESTS ON PAGE 49 THAT QWEST MAKES NO REFERENCE**
14 **TO "FINISHED SERVICES" IN ITS DOCUMENTATION. IS THIS TRUE?**

15 A. No. The changes made in Technical Publication 77386 do not alter the facts in this case. A
16 CLEC engineer may design and provision its own cables and circuits between collocation
17 spaces. If regeneration is required, the CLEC engineer will then choose to provide regeneration
18 using its own facilities or a request must be submitted to Qwest to provide regeneration via a
19 finished service.. The CLEC bases its decision on design parameters required for its own use
20 and its end user customer. In Section 16 of the Tech Pub the documentation is replete with
21 instructions on how to order finished services once a circuit is designed. Qwest offers only one

product to fulfill the regeneration request by the CLEC under its FCC No. 1 Access Tariff. The "finished service" product, Expanded Interconnection Channel Terminations ("EICT") is located under Section 21.5.2 of the Tariff where the charges are listed as follows under Private Line Transport Service EICT. The prices reflect a per termination charge.

Type	USOC	NRC	RC
DS1 (1.544 Mbps)	TKCJX	313.25	17.22
DS3 (44.736Mbps)	TKCKX	329.00	52.50

IV. SUMMARY AND CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY?

A. As set forth above, Qwest's language on this disputed issue is consistent with Qwest's obligations under the FCC's rules and regulations, while Covad's proposed language has no sustainable basis in law. Accordingly, the Commission should adopt Qwest's language on this disputed issue.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

1627645.1

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION.	)	**DOCKET NO. T-03632A-04-0425 T-01051B-04-0425**

STATE OF COLORADO
COUNTY OF ARAPAHOE

AFFIDAVIT OF MICHAEL NORMAN

: **SS**

Michael Norman, of lawful age being first duly sworn, depose and states:

1. My name is Michael Norman. I am a Director for Qwest Corporation in Littleton, Co. I have caused to be filed written Response testimony in Docket No. T-03632A-04-0425, T-01051B-04-0425.

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.

Michael Norman

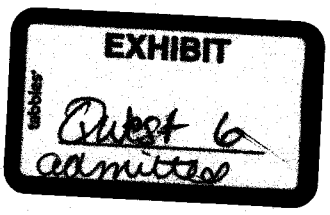
SUBSCRIBED AND SWORN to before me this 18th day of January, 2005.

Donna Goldman
Notary Public

My Commission Expires: 4/5/2008.

DONNA GOLDMAN
STATE OF COLORADO
NOTARY PUBLIC

BEFORE THE ARIZONA CORPORATION COMMISSION



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

IN THE MATTER OF THE PETITION OF DEICA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	)	DOCKET NO. T-03632A-04-0425

DIRECT TESTIMONY OF WILLIAM R. EASTON

ON BEHALF OF

QWEST CORPORATION

PAYMENT ISSUES

(Disputed Issue Nos. 8-1, 8-2, and 8-3)

DECEMBER 20, 2004

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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 and member of the Institute of Management Accountants.

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 commissions and the FCC 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 product offerings and projections of revenue. In

October of 2001 I moved from Wholesale Finance to the Wholesale Advocacy group, where I am currently responsible for advocacy related to Wholesale products and services. In this role I work extensively with the Product Management, Network and Costing organizations.

Q. HAVE YOU TESTIFIED PREVIOUSLY IN ARIZONA?

A. Yes. I have testified previously in Docket Nos. T-01051B-97-0689, U-3021-96-448, T-02428A-03-0553, T01051B-02-0871 and T-01051B-04-0152.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to explain Qwest's positions, and the policies underlying those positions on Disputed Issue No. 8 - Payment Issues. There are three distinct subparts to this issue in this arbitration proceeding: 8-1 (Due Dates for Amounts Payable); 8-2 (Timing for Discontinuing Orders); and 8-3 (Timing for Disconnecting Services).[1] At the time Covad filed its Petition for Arbitration there was a fourth payment issue involving the definition of "repeatedly delinquent", which has since been resolved by the parties.

[1] Covad does not break this disputed issue into separate subparts. I do so here so that the precise language and dispute related to each subpart is identified and addressed.

1 My testimony will show that Qwest's position on these payment issues strikes a
2 commercially reasonable and appropriate balance between meeting the billing and payment
3 needs and concerns of both Covad and Qwest. It will also show that Covad has failed to
4 demonstrate why there should be any deviation from those standards which are generally
5 applicable industry-wide.

6 **Q. IN ITS PETITION FOR ARBITRATION, COVAD CHARACTERIZES ISSUE NO.**
7 **8 AS BEING ABOUT "PROVISIONS RELATED TO BILLING AND BILLING**
8 **DISPUTE RESOLUTION." IS THIS AN ACCURATE DESCRIPTION OF THE**
9 **ISSUE?**

10 A. No. The language in dispute involves separate subsections of Section 5.4 of the
11 interconnection agreement entitled "Payment," which is the section where the parties
12 address issues concerning payment obligations. While Covad has characterized Issue 8 as
13 focusing on "billing" issues, Issue 8 (and Section 5.4 of the agreement) is more
14 appropriately described as "payment" issues: Section 5.4 relates to the obligation of the
15 billed party to make payments and to the billing party's recourse in the event of non-
16 payment.

17 **Q. BY WAY OF BACKGROUND, DOES THE PAYMENT LANGUAGE IN THE**
18 **AGREEMENT APPLY TO BOTH PARTIES?**

19 A. Yes. The language at issue in this interconnection agreement applies to both parties since
20 the agreement anticipates that either party may provide services to the other and be entitled
21 to payment for the services provided. One of the unique aspects of Qwest's relationship

with Covad, however, is that Covad does not provide any services to Qwest. Consequently, Covad is likely not concerned about the terms governing payment for services rendered to Qwest. This perhaps explains why Covad is so aggressively seeking to put off the time for paying its bills as well as the time when Qwest can take action to protect itself from further business risk by discontinuing the processing of new orders and disconnecting service. Covad's proposed extended times are at odds with standard and commercially-reasonable practice, and would improperly require Qwest to continue to provide services (without compensation) to Covad for extended periods even though Covad does not even dispute the amounts due.

III. DISPUTED ISSUE NO. 8-1: DUE DATES FOR AMOUNTS PAYABLE

Q. PLEASE EXPLAIN DISPUTED ISSUE 8-1.

A. Issue 8-1 relates to Section 5.4.1 of the interconnection agreement, which specifies the number of days Covad has to pay its bills.

Q. WHAT LANGUAGE IS QWEST PROPOSING FOR SECTION 5.4.1?

A. Qwest proposes the following language:

> 5.4.1 Amounts payable under this Agreement are due and payable within thirty (30) calendar Days after the date of invoice, or within twenty (20) calendar Days after receipt of the invoice, whichever is later (payment due date). If the payment due date is not a business day, the payment shall be due the next business day.

1 **Q. HOW DOES COVAD'S PROPOSED LANGUAGE DIFFER FROM QWEST'S**
2 **PROPOSED LANGUAGE?**
3 A. Covad proposes that amounts payable be due and payable within 45 days, rather than the
4 30 days Qwest is proposing.

5 **Q. WHY DOES QWEST BELIEVE THAT 30 DAYS IS A MORE APPROPRIATE**
6 **TIME PERIOD?**
7 A. The 30 day time period balances Covad's need for sufficient time to analyze monthly bills
8 and issue payment with Qwest's right to timely compensation for services rendered. This is
9 the same 30 day time period that is in the current interconnection agreement between
10 Qwest and Covad, under which the parties have been operating since early 1999. This is
11 also the same 30 day time period in Qwest's SGAT, in numerous interconnection
12 agreements with CLECs, as well as in Qwest's FCC access tariff (FCC No. 1) and the
13 Qwest Arizona Access Service Tariff.

14 **Q. WOULD COVAD'S PROPOSAL HAVE AN IMPACT ON QWEST'S CASH**
15 **FLOW?**

16 A. Yes. Under Covad's proposal, Qwest would be receiving payment of the undisputed
17 amounts 15 days later than it currently does and would be deprived, therefore, of use of this
18 money for 15 days. Covad's proposal amounts to a 15-day interest free loan from Qwest
19 to Covad.

1 **Q. WHAT IF THERE IS A DISPUTE OVER A CHARGE ON THE BILL? IS THE**
2 **BILLED AMOUNT STILL DUE WITHIN 30 DAYS?**
3 A. No. The agreed to language in Section 5.4.4 of the agreement discusses in detail how
4 disputed amounts are to be handled, stating that the undisputed portions of the bill shall be
5 paid. If a portion of the bill is disputed and the dispute is resolved in favor of the billed
6 party, the disputed amount and associated interest will be credited or paid to the billed
7 party. Conversely, if the dispute is resolved in favor of the billing party, the disputed
8 portion of the bill becomes due and late payment charges are applied. The language in
9 Sections 5.4.4 and 5.18.5 also allows the billed party to dispute a charge at a later date if it
10 should discover an error after the bill has been paid.

11 **Q. HOW DOES QWEST'S LANGUAGE FOR THE PAYMENT PERIOD COMPARE**
12 **WITH THE LANGUAGE THAT IS IN QWEST'S ARIZONA SGAT?**
13 A, Qwest's proposed language for Section 5.4.1 of the agreement is identical to the language
14 that is contained in Qwest's Arizona SGAT.

15 **Q. WAS THIS ISSUE ADDRESSED DURING THE 271 WORKSHOPS?**
16 A. Yes. During the 271 workshops, in which Covad actively participated, the issue of
17 allowing adequate time to analyze monthly bills was discussed at length. Many of the
18 concerns that Covad raises in this case were thoroughly discussed during these workshops.
19 Ultimately, all issues pertaining to the appropriate time frame for payment, including the
20 timing of discontinuance of orders and disconnection of service which are discussed in
21 more detail below, were resolved and the resulting consensus language is the same as that

1 proposed by Qwest herein. Furthermore, in its recently negotiated Commercial Line
2 Sharing Agreement with Qwest, Covad agreed to payment, discontinuance and
3 disconnection terms which are identical to those proposed by Qwest in this proceeding.

4 **Q. IN PROCEEDINGS IN OTHER STATES, COVAD HAS ARGUED THAT THE**
5 **PAYMENT LANGUAGE AGREED TO IN THE 271 WORKSHOPS IS**
6 **IRRELEVANT HERE. HOW DO YOU RESPOND?**

7 A. I disagree. The 271 proceedings were structured to facilitate an in-depth discussion of the
8 "general terms and conditions" of Qwest's SGAT. The issue of allowing sufficient time to
9 analyze bills and the issue of the appropriate payment due date were discussed at length by
10 Covad and other CLECs during the General Terms and Conditions workshops. The
11 outcome of these discussions was consensus billing and payment language, which is the
12 same language that Qwest is proposing for the parties' interconnection agreement.

13 While it has been several years since the 271 workshops that resulted in this consensus
14 language, there are no intervening facts or circumstances that support any change in the
15 payment language. To the contrary, Qwest and Covad have been operating under the same
16 30 day time period for the payment of bills since early 1999. Just as Covad did not object
17 to the 30 day payment due date consensus language during the 271 proceedings, it has not
18 identified any problems with this time period during the course of the parties' business
19 operations under their existing interconnection agreement.

1 **Q. IN ITS REQUEST FOR ARBITRATION COVAD ARGUES THAT QWEST IS**
2 **LIKELY TO BE MORE CONCERNED NOW THAN IT WAS DURING THE 271**
3 **PROCEEDINGS OVER PAYMENT ISSUES GIVEN THE STATE OF THE**
4 **INDUSTRY AND SEVERAL HIGH PROFILE CASES IN WHICH CLECS HAVE**
5 **FAILED TO PAY QWEST FOR SERVICES. HOW DO YOU RESPOND?**
6 A. The proper focus of this arbitration dispute is whether the Commission should adopt
7 Covad's request to deviate from current industry practice. The industry standard (30 days)
8 is commercially reasonable and balances the legitimate business interests and concerns of
9 the parties. The fact that a number of CLECs have failed to pay Qwest for services that
10 Qwest has provided to them, leaving Qwest with millions of dollars in uncollectible
11 receivables, underscores the legitimacy of the language Qwest proposes here and
12 undermines Covad's argument for *extending* the amount of time within which Covad (and
13 CLECs opting in to this agreement) may withhold payment for services they have received
14 from Qwest and do not dispute they owe Qwest. Covad's proposal would delay Qwest's
15 ability to take commercially-reasonable protective action and exacerbate the risk to Qwest
16 of non-recovery.

17 **Q. HAVE OTHER CLECS AGREED TO THE SAME LANGUAGE QWEST**
18 **PROPOSES HERE?**
19 A. Yes. For example, AT&T/TCG recently completed interconnection negotiations with both
20 parties agreeing to the payment language that Covad challenges here. Not surprisingly,
21 since this language was agreed upon with the CLEC community, numerous CLECs are

1 operating under this payment language here and across Qwest's service territory. In
2 Arizona, 14 CLECs have opted into the Arizona SGAT which contains Qwest's proposed
3 payment language.

4 **Q. WHAT ABOUT COVAD'S ARGUMENTS THAT IT NEEDS MORE TIME TO**
5 **ANALYZE AND PROCESS QWEST'S BILLS?**

6 A. These arguments are belied by the fact that Covad has had years of experience with
7 Qwest's bills and has had ample opportunity to raise any specific concerns about its ability
8 to efficiently analyze and process these bills within the time frame allotted for payment.
9 Through years of experience with Qwest's bills, Covad should have acquired sufficient
10 familiarity and expertise with Qwest's bills to analyze them promptly and efficiently or to
11 seek appropriate business solutions to any general or specific billing problems it might
12 identify.

13 **Q. IN ITS PETITION FOR ARBITRATION, COVAD NOTES THAT "WHILE SOME**
14 **BILLS ARE SENT IN ELECTRONIC FORMAT, OTHERS ARE SENT IN PAPER**
15 **FORMAT ONLY." PLEASE COMMENT.**

16 A. Although the statement is technically correct, Covad omits that the vast majority of
17 Qwest's billing is done electronically. In the case of UNE/Resale, a paper bill is still the
18 official bill of record. However, in addition to the paper bills, Covad receives electronic
19 files for the UNE/Resale bills which provide it with the information that it needs to analyze
20 and review the bills. The only other paper bill Covad is currently receiving is out of the
21 BART system for one-time/non-recurring charges related to collocation. On a region wide

basis, this one-time/non-recurring charge for collocation represents only about [redacted] of Covad's total monthly billed amounts

Q. APPROXIMATELY HOW MANY PAGES OF BART BILLING DOES COVAD RECEIVE EACH MONTH FROM QWEST?

A. In total, for *all* the Qwest states in which it operates, Covad receives approximately [redacted] pages of BART billing per month.

Q. DOES QWEST HAVE PERSONNEL WHO ARE AVAILABLE TO EXPLAIN ITS BILLS TO COVAD AND TO ASSIST WITH ANY BILLING INQUIRIES FROM COVAD?

A. Yes. Qwest has a staff of Service Delivery Coordinators whose responsibilities include explaining CLEC bills and answering any questions a CLEC might have about the bills. Qwest has three Service Delivery Coordinators who have been designated to work with Covad.

Q. DOES QWEST HAVE INCENTIVES TO ENSURE THAT ITS BILLS ARE ACCURATE?

A. Yes, it does. There are performance measures related to billing completeness and accuracy that are a part of Qwest's Performance Assurance Plan. To the extent billing is inaccurate, there are penalty payments assessed to Qwest. It is in the best interest of both Qwest and Covad that Qwest's bills are complete and accurate.

1 **Q. HAS COVAD HAD DIFFICULTY MEETING THE 30 DAY DUE DATE IN THE**
2 **PAST?**
3 A. No. Qwest's experience has been that Covad pays its bills within the 30 day payment due
4 date.

5 **Q. IN ARBITRATION PROCEEDINGS HELD IN OTHER STATES, COVAD**
6 **ARGUED THAT SINCE COVAD HAD A GOOD BILLING RELATIONSHIP**
7 **WITH QWEST, QWEST SHOULD NOT BE CONCERNED ABOUT EXTENDING**
8 **PAYMENT TIME FRAMES. DO YOU AGREE?**
9 A. No. Given the rights of other CLECs to opt into this new Qwest-Covad interconnection
10 agreement, any CLEC could choose to receive the extended time frames advocated by
11 Covad here.[2] As a result, Covad's prior payment performance is not the relevant factor in
12 determining whether it is appropriate to require Qwest to continue to provide services for
13 extended periods even though the bill is undisputed. Further, Covad's prior payment
14 performance may not be predictive of Covad's future payment performance. While Covad
15 cites its prior payment performance as a reason why Qwest need have no concerns about
16 Covad, it simultaneously argues for significant extensions of time frames within which
17 Qwest would have no remedy for Covad's nonpayment.

18 **Q. COVAD HAS STATED IN PREVIOUS PROCEEDINGS THAT IT PLANS TO**

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[2] Although the FCC recently eliminated the "pick and choose" option, under FCC rules any carrier may still opt into an interconnection agreement in its entirety, thereby taking advantage of the payment terms, including timing of discontinuing orders and disconnecting service, advocated by Covad in this proceeding.

1 **PARTNER WITH OTHER CLECS TO PROVIDE LINE SPLITTING AND LOOP**
2 **SPLITTING SERVICES. IS THIS SUFFICIENT REASON FOR COVAD TO**
3 **HAVE EXTENDED TIME TO PAY FOR SERVICES IT ORDERS FROM**
4 **QWEST?**

5 A. No. Covad has apparently chosen to change its business strategy and to partner with other
6 CLECs to provide line splitting or loop splitting services. This is, however, no justification
7 for requiring *Qwest* to assume additional risk and deferred payment as a result of a change
8 in Covad's business strategy that does not involve Qwest. That Covad's plans to partner
9 with other CLECs may require significant billing coordination between Covad and its new
10 business partners is an issue that must be addressed by Covad and those new business
11 partners. Covad and its new business partners have no incentive to adopt efficient billing
12 arrangements or to sort out billing issues between themselves if payment *to Qwest* for the
13 services ordered from Qwest can be deferred and the business costs and risk of nonpayment
14 shifted to Qwest.

15 **Q. DO OTHER QWEST CUSTOMERS OPERATE UNDER PARTNERSHIP**
16 **ARRANGEMENTS SIMILAR TO WHAT COVAD MAY BE CONTEMPLATING?**

17 A. Yes. Qwest currently has a number of customers purchasing Line Splitting, a product
18 which allows one company to provide voice service and another company to provide data
19 service over the same line. These customers are operating under the same 30 day payment
20 terms that Covad is disputing here.

21 **Q. WHAT IS COVAD'S PAYMENT POLICY FOR ITS END-USER CUSTOMERS?**

1 A. When billing its customers, Covad uses the same 30 day period that Qwest is proposing to
2 use. Attached as Exhibit WRE-1 is a page from Covad's website:
3 http://www.covad.com/onlinesupportcenter/resources/explainer/invoice.shtml. This page
4 contains a sample Covad bill which indicates that the payment due date is 30 days after the
5 invoice date.

6 Covad serves its customers through services it purchases from Qwest. Hence, even as
7 Covad receives payment from its own customers in 30 days for services that include
8 services provided by Qwest, Covad seeks to extend by 50% the amount of time when
9 Covad itself must pay Qwest for these services.

10 **IV. DISPUTED ISSUE NO. 8-2: TIMING FOR DISCONTINUING ORDERS**

11 **Q. PLEASE EXPLAIN DISPUTED ISSUE 8-2.**

12 A. Issue 8-2, which relates to Section 5.4.2 of the interconnection agreement, has to do with
13 the period of time the billing party must wait before discontinuing processing orders in
14 cases of non payment.

15 **Q, WHAT LANGUAGE IS QWEST PROPOSING FOR SECTION 5.4.2?**

16 A. Qwest is proposing the following language:

17 5.4.2 One Party may discontinue processing orders for the failure of the
18 other Party to make full payment for the relevant services, less any
19 disputed amount as provided for in Section 5.4.4 of this Agreement, for

1 the relevant services provided under this Agreement within thirty (30)
2 calendar Days following the payment due date. The Billing Party will
3 notify the other Party in writing at least ten (10) business days prior to
4 discontinuing the processing of orders for the relevant services. If the
5 Billing Party does not refuse to accept additional orders for the relevant
6 services on the date specified in the ten (10) business days notice, and the
7 other Party's non-compliance continues, nothing contained herein shall
8 preclude the Billing Party's right to refuse to accept additional orders for
9 the relevant services from the non-complying Party without further notice.
10 For order processing to resume, the billed Party will be required to make
11 full payment of all charges for the relevant services not disputed in good
12 faith under this Agreement. Additionally, the Billing Party may require a
13 deposit (or additional deposit) from the billed Party, pursuant to this
14 section. In addition to other remedies that may be available at law or
15 equity, the billed Party reserves the right to seek equitable relief including
16 injunctive relief and specific performance.

17 **Q. HOW DOES QWEST'S LANGUAGE DIFFER FROM COVAD'S PROPOSED**
18 **LANGUAGE?**

19 A. Under the Covad proposal, the billing party (Qwest) would have to wait 90 days, not 30,
20 following the payment due date before it could discontinue processing orders.

21 **Q. WHY DOES QWEST OPPOSE COVAD'S PROPOSED 90 DAY PERIOD?**

22 A. Qwest is entitled to timely payment for services rendered and to take remedial action if risk
23 of non-payment is apparent. Under Qwest's proposal, an invoice is not due and payable
24 until 30 days after the invoice date and Qwest cannot take action until another 30 days after
25 that. Since Qwest renders some of its services in the month *before* the invoice date, under
26 the Qwest proposal, Qwest will wait to take action until nearly three months after it has
27 provided the service. Under the Covad proposal, Qwest would be required to wait 135
28 days after the invoice date (45 days to payment due date plus an additional 90 days) before
29 Qwest could take action in cases of non-payment. Taking into account the fact that the

1 service may have been rendered in the month prior to the invoice date, Covad proposes that
2 Qwest wait almost six months after the service was provided before it may discontinue
3 processing new orders. Qwest should not have to wait nearly six months to take action in
4 cases of failure to make payment *for undisputed charges*. Every day of delay may result in
5 additional bad debt, and imposes additional cash flow costs upon Qwest. Because the
6 discontinuance applies only to *undisputed charges*, there is no basis for requiring Qwest to
7 continue to provision services to Covad long after Covad has ceased paying Qwest for
8 services that Qwest has already provided and that Covad does not dispute have been
9 properly billed.

10 **Q. WAS THIS ISSUE ADDRESSED IN THE 271 PROCEEDINGS?**

11 A. Yes. During the 271 proceedings in which Covad actively participated, this issue was
12 discussed at length. Ultimately the Commission approved the consensus SGAT language
13 providing the 30 day time period Qwest advocates in this case.

14 **Q. IS THERE ANY BASIS FOR TRIPLING THE AMOUNT OF TIME THAT QWEST**
15 **MUST WAIT BEFORE IT MAY PROTECT ITSELF BY DISCONTINUING**
16 **PROCESSING ORDERS FOR NONPAYMENT?**

17 A. No. Covad identifies no new facts or circumstances requiring Qwest to continue to process
18 new orders for this extended period of time during which it is *undisputed* that Covad owes
19 Qwest for services that Qwest provided to Covad months earlier. The CLEC community
20 agreed during the 271 process that the thirty day period strikes the proper balance between
21 CLECs' and Qwest's interests. Qwest's proposed language carries forward that balance

1 whereas Covad's proposed language, without justification, shifts to Qwest enormous
2 additional risk of never being paid for the services it provides.

3 **Q. WHAT TIMING FOR DISCONTINUING ORDERS DID AT&T/TCG AND**
4 **QWEST AGREE UPON IN THEIR RECENT INTERCONNECTION**
5 **NEGOTIATIONS?**

6 A. AT&T/TCG and Qwest agreed to the same 30-day period that Qwest is proposing in this
7 proceeding. This 30-day period is in Qwest's SGATs and in numerous interconnection
8 agreements.

9 **V. DISPUTED ISSUE NO. 8-3: TIMING FOR DISCONNECTING SERVICES**

10 **Q. PLEASE EXPLAIN DISPUTED ISSUE 8-3.**

11 A. Issue 8-3, which relates to Section 5.4.3 of the interconnection agreement, has to do with
12 the period of time the billing party must wait before disconnecting service in cases of non-
13 payment.

14 **Q, WHAT LANGUAGE IS QWEST PROPOSING FOR SECTION 5.4.3?**

15 A. Qwest proposes the following language:

16 5.4.3 The Billing Party may disconnect any and all relevant services for
17 failure by the billed Party to make full payment, less any disputed amount
18 as provided for in Section 5.4.4 of this Agreement, for the relevant
19 services provided under this Agreement within sixty (60) calendar Days
20 following the payment due date. The billed Party will pay the applicable

1 reconnect charge set forth in Exhibit A required to reconnect each resold
2 End User Customer line disconnected pursuant to this paragraph. The
3 Billing Party will notify the billed Party at least ten (10) business days
4 prior to disconnection of the unpaid service(s). In case of such
5 disconnection, all applicable undisputed charges, including termination
6 charges, shall become due. If the Billing Party does not disconnect the
7 billed Party's service(s) on the date specified in the ten (10) business days
8 notice, and the billed Party's noncompliance continues, nothing contained
9 herein shall preclude the Billing Party's right to disconnect any or all
10 relevant services of the non-complying Party without further notice. For
11 reconnection of the non-paid service to occur, the billed Party will be
12 required to make full payment of all past and current undisputed charges
13 under this Agreement for the relevant services. Additionally, the Billing
14 Party will request a deposit (or recalculate the deposit) as specified in
15 Section 5.4.5 and 5.4.7 from the billed Party, pursuant to this Section.
16 Both Parties agree, however, that the application of this provision will be
17 suspended for the initial three (3) Billing cycles of this Agreement and
18 will not apply to amounts billed during those three (3) cycles. In addition
19 to other remedies that may be available at law or equity, each Party
20 reserves the right to seek equitable relief, including injunctive relief and
21 specific performance.

22 **Q. HOW DOES THIS DIFFER FROM COVAD'S PROPOSED LANGUAGE?**

23 A. Under Covad's proposal, Qwest would have to wait 120 days, not 60, after the due date
24 before it could begin disconnecting service in cases of non-payment.

25 **Q. WHY DOES QWEST OPPOSE THE 120 DAY PERIOD?**

26 A. As I have discussed above, Qwest is entitled to timely payment for services rendered and to
27 take remedial action if the risk of non-payment is apparent. Under the Qwest proposal,
28 Qwest could not begin disconnection until 90 days after the invoice date (30 days to
29 payment due date plus 60 days before disconnection). The additional two months
30 requested by Covad significantly increases Qwest's financial exposure. Under the Covad
31 proposal, it would be 165 days after the invoice date (45 days to payment due date plus and

1 additional 120 days) before Qwest could disconnect services in cases of non-payment.
2 Taking into account the fact that the service itself may have been rendered in the month
3 prior to the invoice date, this is almost seven months after the service was provided. This
4 is an unreasonable amount of time. Again, the disconnection timing at issue here applies
5 only to undisputed amounts. Disputed amounts are handled pursuant to the language in
6 Section 5.4.4, as I described earlier.

7 **Q. IN ITS PETITION COVAD ARGUES THAT EXTENDING THE TIME IS**
8 **CRITICAL GIVEN THE SEVERE CONSEQUENCES. HAS QWEST EVER**
9 **DISCONTINUED TAKING COVAD ORDERS OR DISCONNECTED SERVICE?**

10 A. No.

11 **Q. WAS THIS ISSUE ALSO ADDRESSED IN THE 271 WORKSHOPS?**
12 A. Yes. During the 271 workshops, this issue was also discussed at length. Ultimately, the
13 issue was resolved with Covad and other CLECs agreeing upon the 60 day proposal that
14 Qwest is making in this case.

15 **Q. WHAT SERVICE DISCONTINUANCE LANGUAGE DID AT&T/TCG AND**
16 **QWEST AGREE TO IN THE RECENT INTERCONNECTION NEGOTIATIONS?**
17 A. AT&T/TCG and Qwest agreed to the same language that Qwest proposes in this
18 proceeding. Again, the 60 days that Qwest proposes is consistent with Qwest's SGATs and
19 numerous interconnection agreements.

Q. DOES THE ARIZONA CORPORATION COMMISSION HAVE RULES RELATED TO THE DISCONNECTION OF SERVICE TO CUSTOMERS?

A. Yes. Rule R14-2-508, Section C.2 states that "Bills for telephone services may be considered delinquent 15 days after the date the bill is rendered." Section C.3 states that "Delinquent accounts for which payment has not been received may be terminated 22 days after the bill is rendered." Rule R14-2-509, Sections C., D. and E. layout notice requirements and require the utility to give "at least 5 days advance written notice prior to the termination date."

Q. WHAT IS COVAD'S DISCONNECTION POLICY FOR ITS END USER CUSTOMERS?

A. Attached as Exhibit WRE-2 is a copy of the Covad Customer Service Policies, which are posted on Covad's website:

http://www.covad.com/onlinesupportcenter/resources/legal/docs/Customer Policies_Direct_030104.pdf

Page 16 of Covad's policy states that: "If Customer fails to pay any bill when due, Covad shall have the right to terminate the services and charge any disconnection and/or early termination fee that would apply if Customer had elected to terminate the Services." Unlike the language Covad proposes here, this language does not require Covad to wait for any period past the due date before it disconnects services.

VI. SUMMARY/CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The payment issues that Covad now disputes were addressed at length by Covad and other CLECs during the 271 process. The payment deadline and the timing for taking protective action that Qwest proposes for the parties' interconnection agreement are identical to the times that were agreed to in the 271 process and that are in Qwest's Arizona SGAT. No new facts or circumstances support the deviations that Covad proposes. Covad's proposals would, if accepted, place Qwest at additional risk of not being paid for the services it renders. Because Qwest's payment language is commercially reasonable, is the result of consensus reached during the 271 process and balances the needs of both the billed and billing parties, Qwest respectfully submits it should be adopted in this arbitration proceeding.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

EXHIBIT WRE-1

COVAD

Covad Communications

Monthly Invoice

XYZ
Account Payable Department
123 Main Street,
Anywhere, USA 12345

Invoice Date:	04/05/03
Invoice No:	461887
Account No:	32488
Billing Period:	04/05/03-05/04/03

Remit To:
Covad Communications
Department 33408
P.O. Box 39000
San Francisco, CA 94139

Total Amount Due:	$769.82
Payment Due Date:	05/05/03

Please print and mail the first page of this email with your payment to the above address

BILL-AT-A-GLANCE

Previous Unpaid Balance		$ 300.00
Payment - Thank You		$ (300.00)
Adjustments	Detail below	$ (3.00)
Balance		$ (3.00)
Current Charges		$ 717.60
Taxes on Current Charges		$ 55.22
TOTAL AMOUNT DUE		$ 769.82
Amount Due in Full by		05/05/03

ACCOUNT SUMMARY

Name	Account Number	Amount
John Smith	12239	$ 74.90
James Smith	12888	$ 143.70
Mary Smith	12200	$ 499.00
CURRENT CHARGES (excludes tax)		$ 717.60

ADJUSTMENT SUMMARY

Name	Account Number	Service	Charge	Amount
John Smith	12239	Adjustment	Monthly Service	$ (1.00)
James Smith	12888	Adjustment	Monthly Service	$ (1.00)
Mary Smith	12200	Adjustment	Monthly Service	$ (1.00)
TOTAL ADJUSTMENTS				$ (3.00)

TAX SUMMARY

Taxes	Amount
State	$ 50.89
County	$ -
City	$ 4.33
Local	$ -
TOTAL TAXES	$ 55.22

COVAD NEWS

Try Covad's new Hosting Services - risk-free!! All hosting plans are backed by a 30-day satisfaction guarantee and we'll waive the set-up fee (value $50) for a limited time! Covad email and Web hosting services allow you to quickly and easily establish your presence on the Internet.

CONTACT US

To view your account details online or to update your account information and payment method, log onto www.covad.net. For questions about this bill, or to make a one time credit card payment please contact Covad Customer Care at 1-888-642-6823. Thank you.

To make it easy for you to pay your invoice or make a query, we've put information that identifies your bill and account all in one place — right in this corner!

Find out at a glance how much you owe in total and when to pay it.

Ready to mail your check? Here's where to send your payment and what information you should include on your check.

Get a quick overview of your bill, including your balance from the last bill, payments processed, adjustments, current charges and taxes on current charges.

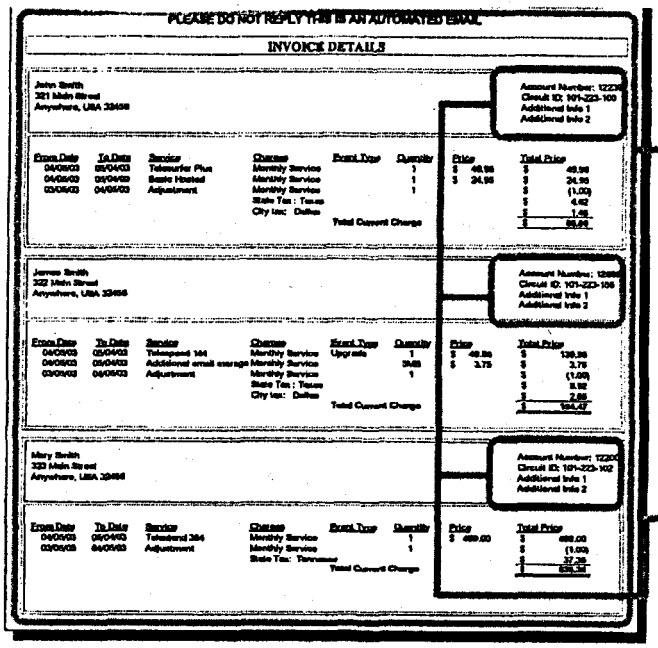
This is a summary of your current charges before taxes, including monthly recurring and non-recurring charges. If you have multiple lines, you'll see the current charge for each sub-account listed in this box.

Any adjustments we make to your current charges will appear in this box.

Want to know where your taxes are going? Our bill breaks down by jurisdiction the taxes on your current charges.

Be sure to check this box each month for the latest information about our products, services and promotions.

Got a question about your bill or need to make a change to your Covad service? Refer to this box to find out where to go or whom to call for your customer service needs.



Details, details. Here's where to find a quick, easy-to-read explanation of the current charges on your bill. This section itemizes the services we're billing for, and includes monthly recurring charges, non-recurring charges, taxes and any adjustments made to your current bill. If you have multiple lines, you'll find details on each sub-account in a separate box.

For information about your account — including your service address and circuit ID — just turn your attention to this section of your invoice.

EXHIBIT WRE-2

Covad Service Customer Policies

Version 030804

TELESPEED AND TELEXTEND INTERNET SERVICE DESCRIPTION 1

TELESURFER AND TELESOHO INTERNET SERVICE DESCRIPTION 8

DIAL INTERNET SERVICE DESCRIPTION 10

INTERNET SERVICES POLICIES 10

HOSTING SERVICES DESCRIPTION 12

TELEDEFEND SECURITY SERVICES DESCRIPTION 14

COVAD BILLING POLICIES 15

OTHER FEES FOR COVAD INTERNET SERVICES 18

GLOSSARY 21

Covad, Covad.net, TeleSurfer Link, TeleSurfer, TeleSoho, TeleSpeed and TeleDefend are registered trademarks of Covad Communications. TeleXtend is a service mark of Covad Communications.

TELESPEED AND TELEXTEND INTERNET SERVICE DESCRIPTION

TELESPEED INTERNET SERVICE

The TeleSpeed Internet Services are Covad's business-oriented Internet Services based on Symmetric Digital Subscriber Line ("SDSL") services provisioned on separate lines from the Customer's phone service. TeleSpeed Internet Services are designed for individuals and businesses who use the Internet for conducting their work and running their businesses. All TeleSpeed orders require a Covad Professional Installation. The availability of TeleSpeed Internet Services depends upon the distance of the Customer from the Central Office of the local telephone company and the condition of the wire from the Central Office to the Customer's premises, otherwise referred to as the Customer Circuit. The TeleSpeed family of Internet Services consists of various speeds, listed in the table below:

Service Name	Maximum Throughput Downstream	Maximum Throughput Upstream	Distance Limitations
TeleSpeed 144	144 kbps	144 kbps	39,600 feet (Verizon East – 18,000 feet)
TeleSpeed 192	192 kbps	192 kbps	15,000 feet
TeleSpeed 384	384 kbps	384 kbps	15,000 feet
TeleSpeed 768	768 kbps	768 kbps	13,000 feet
TeleSpeed 1.1	1,100 kbps	1,100 kbps	12,000 feet
TeleSpeed 1.5	1,500 kbps	1,500 kbps	7,000 feet

To determine the speed a Customer may be able to receive, Covad measures the speed the Customer could get from its equipment at its location to Covad's equipment in the local telephone company's central office. While the distance from the Customer's location to the phone company's central office is a good indication of the speed the Customer may be able to get, there are specific technical limitations that also are considered. Based on certain parameters, it may be necessary for certain orders to be downgraded to the next available speed. If Covad can determine during the provisioning of the order that a

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Customer's location does not qualify for the ordered speed, the order will be automatically downgraded to the next available product. While TeleSpeed 1.1 and TeleSpeed 192 are not available for new orders, it is possible that Customers will be downgraded to these products during the provisioning process.

TELEXTEND INTERNET SERVICE

TeleXtend Internet Services are Covad's premium business Internet Services. Using standard T1 technology, TeleXtend Internet Service overcomes the distance limitations inherent in SDSL and Asymmetric Digital Subscriber Line ("ADSL") services, enabling most Customers, located within the serving area of a Covad collocation facility, to receive symmetric speeds of up to 1,500 kbps. All TeleXtend orders require a Covad Professional Installation. The TeleXtend family of Internet Services is offered at full T1 and fractional T1 bandwidth.

Service Name	Maximum Throughput Downstream	Maximum Throughput Upstream
TeleXtend 384	384 kbps	384 kbps
TeleXtend 768	768 kbps	768 kbps
TeleXtend 1.5	1,500 kbps	1,500 kbps

IP ADDRESS PROVISIONING FOR TELESPEED AND TELEXTEND INTERNET SERVICES

Covad provides either one (1) static and public IP address with Network Address Translation ("**NAT**") or five (5) usable static and public IP addresses without NAT as basic IP configuration options for TeleSpeed and TeleXtend Internet Services. The default IP address setting is 1 static IP with NAT. Additional static and public IP addresses without NAT, in configurations of 13, 29, 61, 125, or 253 usable IP addresses, are available at the time of ordering or after installation for additional setup and recurring charges and for use in accordance with the standards applied by the American Registry Internet Numbers ("**ARIN**") for the use of all IP space. Customers who wish to purchase 13 or more IP addresses are required to provide information to Covad, in accordance with ARIN guidelines, justifying the usage of the IP addresses before Covad will allocate the additional IP addresses. Covad will provide such Customer-provided information to ARIN upon request from ARIN.

ISP SERVICES FOR TELESPEED AND TELEXTEND INTERNET SERVICES

As part of the TeleSpeed and TeleXtend Internet Services, the Customer will receive the following ISP services:

- Fifteen (15) POP3 email accounts at Covad.net domain
- Fifteen (15) MB web hosting space at Covad.net domain
- Free dial-up services until TeleSpeed or TeleXtend Internet Service is installed
- Ten (10) free hours of local dial-up each month. Additional hours charged at $1.50 per hour or fraction thereof.
- 24x7x365 customer support
- Access to online SMART Account Manager at www.covad.net

PROFESSIONAL INSTALLATION FOR TELESPEED AND TELEXTEND INTERNET SERVICES

TeleSpeed and TeleXtend Internet Services require Professional Installation services by a Covad Field Service Technician. Covad will schedule an installation time with the Customer to complete the installation process after Covad has confirmed that the Customer's Local Exchange Carrier ("**LEC**") has provisioned the appropriate loop to the Customer's premises. Professional Installation includes the following on-site services, where required (a limit of 2 hours of included on-site time for each Professional Installation):

- Basic inspection of inside wiring. Maximum of 30 minutes including tracing or toning across phone closets; and
- Customer Premises Equipment ("CPE ") hardware installation of Covad-qualified equipment.

The Professional Installation fee does not include the cost of the CPE. Professional Installation service does not include installation or repair of inside wiring. Customer is responsible for quality and repair of inside wiring.

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SERVICE LEVEL AGREEMENT FOR TELESPEED AND TELEXTEND INTERNET SERVICES

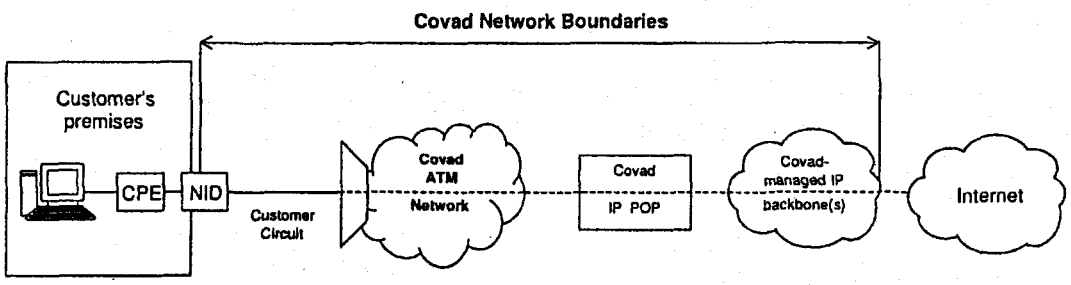
The Covad Service Level Agreement ("**SLA**") is applicable only to TeleSpeed and TeleXtend Internet Services, and applies only to the Covad Network and TeleSpeed or TeleXtend Customer Circuits. The SLA does not apply to any other services, including but not limited to, TeleSurfer and TeleSoho Internet Services and ISP services (including but not limited to DNS, email, and web hosting). The SLA is applicable only to TeleSpeed and TeleXtend Customers under contract with Covad.

All terms used in this section and not otherwise defined shall have the meaning attributed to such terms in the Customer Agreement (the "**Agreement**") between Customer and Covad.

DEFINITIONS

Covad Network: "**Covad Network**" means the infrastructure, facilities, and equipment owned, operated, or controlled by Covad used to provide TeleSpeed and TeleXtend Internet Services. The Covad Network excludes CPE, inside wiring at the Customer's premises, and any network infrastructure, facilities, or other components not owned, leased, operated, or controlled by Covad. See **Figure 1.**

Figure 1: Covad Network boundaries.



Network Interface Device: "**Network Interface Device**" ("**NID**") is defined as the LEC-installed device that connects a Customer's inside wiring to the telephone network.

Customer Circuit: "**Customer Circuit**" is defined as the physical wiring between Covad's network equipment and the Customer's NID.

Covad IP PoP: A "**Covad IP Point of Presence**" is defined as a location where Covad's network equipment connects to the public Internet and/or the LEC equipment.

IP Region: An "**IP Region**" is the set of Covad Service Areas that are served by a particular IP PoP. A listing of Covad IP Regions is available from Covad upon request. Covad may, at its sole discretion, change the number and configuration of IP Regions and the assignment of Service Areas to particular IP Regions. Covad may serve individual Customer Circuits from an IP PoP in a different IP Region.

Installation Interval: For completed Customer Circuits on which billing has commenced, "**Installation Interval**" is calculated as the number of whole calendar days between (a) the later of (i) the date Covad received the Customer Circuit order from Customer or (ii) the date that Covad has approved Customer's credit application (if applicable) and (b) the Billing Start Date for that Customer Circuit order. This calculation excludes: (a) any period that Covad waits for a response, availability, or action from Customer, (b) any period that Covad waits to install the Customer Circuit resulting from Customer failure to respond, unavailability, lack of access to Customer's facilities, change of requested installation date, or other action or inaction, or (c) any period resulting from a Force Majeure Event.

Service Available: "**Service Available**" is defined as the ability for a Customer to exchange Internet Protocol ("**IP**") packets between the Customer's NID and any IP address (of Covad's choice) on the public Internet via the Covad Network.

Service Outage: There is a "**Service Outage**" on a specific Customer Circuit when IP packets cannot be exchanged between the Customer's NID and any IP address (of Covad's choice) on the public Internet via the Covad Network.

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A Service Outage excludes any failures to which any of the following have contributed in whole or in part:

a) Scheduled maintenance or other planned outages on the Covad Network;
b) Problems with, or maintenance on, Customer's applications or equipment (including, but not limited to, inside wiring, or changes to or reconfiguration of Customer's CPE not performed by Covad); or
c) A Force Majeure Event, as defined in the Agreement.

Time to Restore Service: **"Time to Restore Service ("TTR")"** is defined as the duration of a Service Outage. Time to Restore Service is calculated commencing with the date and time (as set forth on the trouble ticket) on which Covad initially reports the Service Outage on a trouble ticket containing all information necessary for Covad to respond to the trouble ticket and ending upon confirmation by Covad to Customer that the service is restored. This calculation excludes any period that Covad waits for a response, availability, or action from Customer, and further excludes any period Covad spends monitoring the affected Customer Circuit after Covad has restored service to the affected Customer Circuit.

Monthly Service Availability: **"Monthly Service Availability"** is defined as the percentage of minutes in a calendar month a Customer Circuit did not experience a Service Outage in that month. Specifically, Monthly Service Availability is a percentage calculated as:

1- [(aggregate Time to Restore Service for all Service Outages experienced by Customer Circuit in a calendar month) / (total minutes in same month)]*100

Severe Problem: A Customer Circuit is experiencing a **"Severe Problem"** if the aggregate Time to Restore Service for all Service Outages for such Customer Circuit is in excess of twenty-four (24) hours in any calendar month.

Chronic Problem: A particular Customer Circuit is experiencing a **"Chronic Problem"** if a subsequent Severe Problem occurs (a) within one (1) calendar month following the calendar month in which a Customer experienced a Severe Problem, *and* (b) Covad did not recommend to disconnect the Customer Circuit at the time of the prior Severe Problem.

Network Delay: **"Network Delay"** is defined as the time in milliseconds (**"ms"**) required for a round-trip ping test between the Customer's NID and a Covad IP PoP in a different IP Region, *provided* that the only traffic on the Customer Circuit during the ping test is the test traffic.

Average Network Delay: The **"Average Network Delay"** on a Customer Circuit is the hourly average of the Network Delay measurements conducted on that Customer Circuit. Average Network Delay is not measured when the Customer Circuit is experiencing a Service Outage.

Delivery: **"Delivery"** is defined as the percentage of IP packets successfully transmitted between the Customer's NID and a Covad IP PoP in a different IP Region in a period, *provided* that the only traffic on the Customer Circuit during the test is the test traffic.

Average Delivery: The **"Average Delivery"** on a Customer Circuit is an hourly average of the Delivery measurements conducted on that Customer Circuit. Average Delivery is not measured when the Customer Circuit is experiencing a Service Outage.

Time to Repair Service: **"Time to Repair Service"** is defined as the duration that the Average Network Delay or Average Delivery on a Customer Circuit exceeds the targets for Average Network Delay or Average Delivery set forth below. Measurement of Time to Repair Service commences with the date and time (as set forth on the trouble ticket) on which Covad reports the Network Delay or Delivery issue on a trouble ticket containing all information necessary for Covad to respond to the trouble ticket and ends upon confirmation by Covad to Customer that performance within the Average Network Delay or Average Delivery targets is restored. This calculation excludes any period that Covad waits for a response, availability, or action from Customer, and further excludes any period Covad spends monitoring the affected Customer Circuit after Covad has restored performance to within the targets for Average Network Delay or Average Delivery for the affected Customer Circuit.

SERVICE LEVELS AND REMEDIES

Installation Interval: Covad's target for Installation Interval for each Customer Circuit is:

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Service	Installation Interval Target
TeleSpeed Customer Circuit	30 calendar days
TeleXtend Customer Circuit	30 calendar days

If Covad does not meet the Installation Interval Target for a Customer Circuit per the above definition and Customer requests a credit, Covad will provide Customer with a credit (**"Installation Interval Credit"**) of fifty percent (50%) of the first whole month's monthly recurring charge for that Customer Circuit.

Monthly Service Availability: Covad's target for Monthly Service Availability for each TeleSpeed Customer Circuit and TeleXtend Customer Circuit is:

Service	Monthly Service Availability Target
TeleSpeed Customer Circuit	99.9%
TeleXtend Customer Circuit	99.99%

If Covad does not meet the Monthly Service Availability Target for a Customer Circuit per the above definition and Customer requests a credit, Covad will provide Customer a credit of three percent (3%) per hour of the monthly recurring charge for such Customer Circuit for each hour (or fraction thereof, rounded to the nearest fifteen (15) minutes) of Service Outage experienced by the Customer Circuit in excess of the Service Availability Target (**"Service Availability Credit"**); *provided* that in no case will the aggregate of all Service Availability Credits and Time to Restore Credits (defined below) exceed the total monthly recurring charge billed for such Customer Circuit during such month.

Example: For the purposes of illustrating the Service Availability Credit only, if a TeleSpeed 384 Customer Circuit (i.e., monthly recurring charge of $179.00) experiences a single Service Outage with Time to Restore Service of 14 hours, 22 minutes in January 2003, Covad will calculate the Service Availability Credit in the following manner:

1) Subtract Monthly Service Availability Target (in minutes) from the Time to Restore Service for the Service Outage for the month to determine the Time to Restore Service in excess of the Monthly Service Availability Target. In this case, the calculation is 14 hours, 22 minutes Time to Restore Service – 45 minutes allowable Service Outage time (1-99.9% of 44,640 minutes in January) = 13 hours, 37 minutes outage in excess of target;
2) Round to the nearest 15 minutes = 13 hours, 30 minutes;
3) Multiply by 3% per hour = 41% of monthly recurring charge;
4) Multiply by monthly recurring charge ($179.00) = **$73.39 Service Availability Credit**.

Time to Restore Service: Covad's target for Time to Restore Service for each Service Outage experienced by a TeleSpeed Customer Circuit or TeleXtend Customer Circuit is:

Service	Time to Restore Service Target
TeleSpeed Customer Circuit	24 hours
TeleXtend Customer Circuit	4 hours

If Covad does not meet the Time to Restore Service Target for a Service Outage on a Customer Circuit per the above definition and Customer requests a credit, Covad will provide Customer a credit of ten percent (10%) of the monthly recurring charge for that Customer Circuit (**"TTR Credit"**), in addition to any other applicable credits for Service Availability, *provided* that in no case will the aggregate of all Service Availability Credits and TTR Credits for that Customer Circuit in a month exceed the total monthly recurring charge billed by Covad for such Customer Circuit for service during such month.

Severe and Chronic Problems: For any Customer Circuit that Covad verifies has experienced a Severe Problem, Covad may recommend to disconnect the affected Customer Circuit. If Covad recommends to disconnect the affected Customer Circuit, Covad will provide a credit to Customer for the amount of such disconnection fee (if any) assessed by Covad.

For any Customer Circuit that Covad verifies has experienced a Chronic Problem, Customer may give Covad approval to disconnect such Customer Circuit, and Covad will provide a credit to Customer for the amount of any disconnection fee (if any) assessed by Covad.

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Average Network Delay: Covad's Average Network Delay target for all TeleSpeed & TeleXtend Customer Circuits is:

Service	Average Network Delay Target
TeleSpeed Customer Circuit	110 milliseconds ("ms")
TeleXtend Customer Circuit	110 ms

If Covad does not meet the Average Network Delay Target for a Customer Circuit in a month per the above definition and Customer requests a credit, Covad will credit the Customer ("**Network Delay Credit**") according to the following table:

If Average Network Delay Time to Repair Service exceeds:	Network Delay Credit is:
One (1) hour in a calendar month	Five percent (5%) of the monthly recurring charge for that Customer Circuit
Two (2) hours in a calendar month	Ten percent (10%) of the monthly recurring charge for that Customer Circuit

Average Delivery: Covad's targets for Average Delivery for all TeleSpeed and TeleXtend Customer Circuits are:

Network	Average Delivery Target
TeleSpeed Customer Circuit	99.9%
TeleXtend Customer Circuit	99.9%

If Covad does not meet the Average Delivery Target for a Customer Circuit per the above definition and Customer requests a credit, Covad will credit the Customer ("**Delivery Credit**") according to the following table:

If Average Delivery Time to Repair Service exceeds:	Delivery Credit is:
One (1) hour in a calendar month	Five (5%) of the monthly recurring charge for that Customer Circuit
Two (2) or more hours in a calendar month	Ten (10%) of the monthly recurring charge for that Customer Circuit

CLAIMS AND CREDIT AVAILABILITY

It is the Customer's responsibility to identify, request and document all bona fide SLA claims and corresponding credits. The easiest way for Customers to notify Covad of an SLA claim is to submit the email form located in the Customer Support section of SMART Account Manager. To be eligible for service credits, Customer must first report service availability, delay, or delivery events to Covad Customer Care. Covad will notify Customer of its resolution of the reported event. Customer must claim any applicable service credits by the 15th day of the month following the month in which (a) the reported incident was resolved (in the case of credits for Service Availability, Time to Restore Service, Network Delay, or Delivery credits) or (b) the Billing Start Date of the affected Customer Circuit (in the case of Installation Interval credits). Covad will verify the Customer's claim within thirty (30) days of a complete and properly submitted credit request, and will apply any applicable credits, as determined at Covad's sole discretion, to the Customer's invoice issued on the next billing anniversary date following Covad's thirty (30) day review. **NOTE:** ***Total credits in a given month on a TeleSpeed or TeleXtend Customer Circuit may not exceed the monthly recurring fees charged by Covad for such Customer Circuit during such month. Any excess credits will not carry over into later invoices.***

For the purposes of illustrating the timelines for Credit Availability only, if Covad resolves an incident in January 2003 – regardless of when Covad opened the trouble ticket for the incident – and Customer wishes to receive a credit for the incident, Customer must claim the applicable credits by February 15, 2003. If the claim is complete and is properly submitted, Covad will verify the claim by March 15, 2003, and will apply any applicable credit to Customer's next invoice. *Customer may not, under any circumstances, submit credit requests after the date to submit service credit requests set forth above has passed; Covad will not accept late credit requests.*

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Requests for SLA credits must be submitted to Covad Customer Care in writing or by email to support@covad.net. A separate credit request must be submitted for each Customer Circuit for which a claim is made. In addition, a separate credit request must be submitted for each type of credit (e.g., Service Availability Credit, Installation Interval Credit, etc.) requested if multiple types of claims are made on a single Customer Circuit; *provided, however*, that requests for Service Availability Credits and Time to Restore Credits for a single Customer Circuit may be made via the same credit request.

Covad will reject any credit requests that do not provide sufficient supporting information to allow Covad to verify the claim. Such information must include:

- The contact name for the TeleSpeed or TeleXtend Internet Service on which the incident occurred;
- The Covad circuit number for the TeleSpeed or TeleXtend Customer Circuit on which the incident occurred;
- The specific type of credit being requested;
- The date(s) of the resolution of the trouble ticket(s) (for credits for Service Availability, Time to Restore Service, Network Delay, or Delivery) or the Billing Start date (for credits for Installation Interval) for the incident; and
- Any other information that Covad may reasonably request to assist Covad in verifying Customer's credit request.

Covad does not guarantee that provision of the above information will be sufficient to allow Covad to verify the request. Covad will inform Customer of credit requests rejected for insufficient information, and Customer will be allowed to resubmit such requests with additional supporting information within five (5) business days of Covad's notification of its rejection of the credit request. After Customer resubmits the credit request with the additional supporting information, the standard verification and crediting timelines (outlined above) will apply. Covad will notify of results within 5 business days of receipt of such requested additional information.

Covad reserves the right to modify the format for submission of, and information required for, SLA credit requests.

Covad may, at its reasonable discretion and without notice, limit or eliminate Customer's eligibility and ability to submit SLA credit requests if (a) Customer has an undisputed past-due amount owed to Covad or (b) in Covad's sole determination, Covad determines that Customer has:

- Failed on one or more occasions to comply with the credit request policies and requirements described herein;
- Submitted an excessive number of rejected SLA credit requests; or
- Used, or attempted to use, the SLA credit process in a frivolous, abusive, or fraudulent manner.

Covad will restore Customer's ability to submit SLA credit requests once Customer (i) has paid all amounts owed Covad (in case of failure to pay outstanding invoices), or (ii) in all other cases, provides to Covad assurances sufficient for Covad to determine Customer has cured the conduct that initiated Customer's ineligibility to participate in the SLA.

TELESPEED EXTENDED COVERAGE AREAS SERVICES

Covad offers Customers service in Covad's extended coverage areas, which are beyond the areas covered by Covad's network (the "ECA Services"). However, the ECA Services differ from Covad's standard Services in various ways that are described below. If Customer purchases ECA Services, the following will apply:

Service Branding. The names of the SDSL ECA Services will be tied to the corresponding Covad Service Name set forth below. For all other purposes except as set forth herein, the ECA Service will be treated as the corresponding Covad Service. T1 and ADSL Services are not available as ECA Services.

Covad Service Name	ECA Service Name
TeleSpeed 144	TeleSpeed 144 ECA
TeleSpeed 192	TeleSpeed 192 ECA
TeleSpeed 384	TeleSpeed 384 ECA
TeleSpeed 768	TeleSpeed 768 ECA
TeleSpeed 1.1	TeleSpeed 1.1 ECA
TeleSpeed 1.5	TeleSpeed 1.5 ECA

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Professional Installation and Field Service. All ECA Services will be provisioned and all field service dispatches will be serviced by a Field Service Technician from one of Covad's partners rather than a Covad Field Service Technician. As a result, Covad waives all liability for installation or field service related issues, including but not limited to, personal injury, death or tangible or intangible property damage.

SLAs. All SLAs remain as set forth for standard Covad Services, with the exception that there will be no SLAs for Time to Restore Service (TTR), for Monthly Service Availability, or for Average Network Delay.

CPE. Customer-provided and Customer-managed CPE may not be used with ECA Services without prior written consent of Covad. The CPE available will be limited to: SDSL CPE: Efficient 5851 and IDSL CPE: Efficient 5871. Covad will provide a one-year limited warranty on this CPE as follows: If, during the warranty period, Covad deems the equipment to be faulty and believes that a replacement is needed, a replacement CPE will be shipped to the Customer within three (3) business days. If a technician visit is also required, Covad's standard fees for a technician dispatch will apply.

Move Orders and Changes. Disconnection and a new order will be required for moves and CPE may not be transferred to a new location. Moves within a Customer location also require a new installation and Customer will be billed for such new installation. Upgrade and downgrades during an order will not be permitted; however, Customers can upgrade or downgrade after the order has been installed by calling Covad (standard upgrade and downgrade terms and conditions apply).

SMART Account Manager. Certain SMART account manager functionality will not be available to manage the ECA Service accounts online and certain information may not be available for viewing in real-time.

Loop Conditioning. In the event that loop conditioning is required on a Customer Circuit, Covad may charge a fee of $199.00 per Customer Circuit

TELESURFER AND TELESOHO INTERNET SERVICE DESCRIPTION

TeleSurfer and TeleSoho services are Internet Services based on Asymmetric Digital Subscriber Line ("ADSL") services provisioned on a shared-line basis (meaning that the Customer will receive ADSL services over the same line on which he or she currently receives his or her voice service). The availability and performance of TeleSurfer and TeleSoho Internet Services depends the distance of the Customer from the Central Office of the local telephone company and the condition of the wire from the Central Office to the Customer's premises. To subscribe to Covad ADSL services, Customers must have local telephone service through one of the following companies: SBC, Verizon, Qwest, or BellSouth. If Customer has local phone service with one of the listed companies at the time of the Covad order, and subsequently changes their voice service while subscribing to Covad ADSL service, Customer will lose their Covad service and will be charged any applicable early termination/disconnection fees if the termination occurs during the Minimum Term. This is the nature of line-sharing services, and cannot be altered for individual customers.

Service Name	Installation Service	Maximum Throughput Downstream	Maximum Throughput Upstream	Distance Limitations
TeleSurfer Link*	Self Installation or Professional Installation	Up to 384 kbps	Up to 128 kbps	18,000 feet
TeleSurfer*	Self Installation or Professional Installation	Up to 608 kbps	Up to 128 kbps	18,000 feet
TeleSurfer Plus	Self Installation or Professional Installation	Up to 1,500 kbps	Up to 128 kbps	18,000 feet
TeleSoho	Self Installation or Professional Installation	Up to 1,500 kbps	Up to 384 kbps	18,000 feet
TeleSoho 3.0/768	Self Installation or Professional Installation	Up to 3,000 kbps	Up to 768 kbps	10,000 feet

** These services have been discontinued for new orders.*

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TeleSurfer and TeleSoho Internet Services are "*commercially reasonable efforts*" services. This means that Covad does not guarantee any upstream or downstream speeds. Service speeds are dependent on the distance of the Customer from the Central Office and the condition of the Customer Circuit, among other factors. TeleSurfer and TeleSoho Internet Services that pass at least 128 kbps of bandwidth downstream and 64 kbps of bandwidth upstream is considered to meet the service's performance standard ("**Performance Standard**"). The exception is TeleSoho 3.0/384 which has a performance standard of 1500 kbps downstream and 128 kbps upstream. Customers that order TeleSoho 3.0/768 service and cannot realize the Performance Standard, can disconnect their Service (within 30 days of the billing start date) or downgrade TeleSoho 1.5/384. TeleSurfer and TeleSoho Internet Services are *rate adaptive* ADSL services. This means that Customers may experience downstream speeds between 1,500 kbps and 3,000 kbps for TeleSoho 3.0/768, 128 kbps and 1,500 kbps for TeleSurfer Plus and TeleSoho 1.5/384, between 128 kbps and 608 kbps for TeleSurfer, and between 128 kbps and 384 kbps for TeleSurfer Link. For the purposes of determining this speed, Covad measures the speed the Customer can get from its equipment at its location to Covad's equipment in the local telephone company's central office.

IP ADDRESS PROVISIONING FOR TELESURFER AND TELESOHO INTERNET SERVICES

TeleSurfer Internet Services will be provisioned with one (1) dynamic IP address via PPPoE (Point to Point Protocol over Ethernet). Covad will provide the PPPoE software to the Customer in the Covad Self Installation Kit. Static IP addresses are not available with any TeleSurfer services.

TeleSoho Internet Services will be provisioned with one (1) fixed and public IP address with Network Address Translation. When NAT is chosen as the IP configuration, the static IP address is terminated on the Customer Premises Equipment and cannot be assigned to individual computers or devices. TeleSoho Customers may also choose five (5) static and public IP addresses without NAT for an additional fee.

ISP SERVICES FOR TELESURFER AND TELESOHO INTERNET SERVICES

As part of TeleSurfer and TeleSoho Internet Services (excluding TeleSurfer Link), the Customer will receive the following ISP services:

- Fifteen (15) email accounts at Covad.net domain
- Ten (10) MB web space at Covad.net domain
- Free dial-up services until TeleSurfer or TeleSoho Internet Service is installed
- Ten (10) free hours of local dial-up each month. Additional hours charged at $1.50 per hour or fraction thereof.
- 24x7x365 customer support
- Access to online SMART Account Manager

ISP SERVICES FOR TELESURFER LINK INTERNET SERVICE

As part of the TeleSurfer Link Internet Service, the Customer will receive the following ISP services:

- One (1) email account at Covad.net domain
- Free dial-up service until TeleSurfer Link Internet Service is installed
- Dial service charged at $1.50 per hour or fraction thereof
- 24x7x365 customer support
- Access to online SMART Account Manager

SELF INSTALLATION FOR TELESURFER AND TELESOHO INTERNET SERVICES

For all Self Installation Services, the Customer is responsible for performing all installation activities at the Customer's premises. Covad will ship the DSL equipment in a Self Installation Kit directly to the Customer after verification that Customer's LEC will provide the DSL capable loop. Covad offers technical telephone assistance to assist the Customer with any installation issues. If the Customer is unable to complete the installation, the Customer can request a Professional Installation by calling Covad Customer Care at 1-888-64-COVAD. Please note that Covad charges a fee for Professional Installation services. Covad will close the order and begin billing after the Customer's LEC confirms that the DSL capable loop has been delivered, or when Covad detects traffic on the Customer Circuit, whichever occurs first. The Self Installation Kit for TeleSurfer and TeleSoho Internet Services includes the following components:

- Ethernet Bridge (TeleSurfer Internet Services) or ADSL router (TeleSoho Internet Services)
- Ethernet cable

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- Phone cord/cable
- Five (5) analog DSL filters – 4 in-line filters and one wall mount filter
- User Guide and Troubleshooting CD
- Tango DSL Connection Software (TeleSurfer Internet Services)

PROFESSIONAL INSTALLATION FOR TELESURFER AND TELESOHO INTERNET SERVICES

If the Customer has selected a Professional Installation at the time of order entry, Covad will schedule an installation time with the Customer to install the DSL Installation Kit. Prior to the Professional Installation, Covad will ship the DSL equipment, including the bridge or router, to the Customer. The Customer can complete the installation of the DSL equipment, and request that the Professional Installation be cancelled by calling Covad Customer Care at least one (1) business day prior to the scheduled installation date to avoid a cancellation charge. In addition, if Customer is unable to install the Self Installation Kit, Customer may request a Professional Installation by calling Covad Customer Care at 1-888-64-COVAD. Please note that Covad charges a fee for Professional Installation services.

Professional Installation includes the following on-site services, where required (limit of 2 hours of on-site time for each Professional Installation):

- NID Splitter or in-line filter installation including cost of filters or splitter;
- Basic inspection of inside wiring. Maximum of 30 minutes including tracing or toning across phone closets;
- Hardware installation of Covad-provided DSL equipment;

Professional Installation fee does not include CPE fees. Professional Installation service does not include installation or repair of inside wiring, installation of software on the Customer's computer, or any work necessary on the Customer's Local Area Network (LAN). Customers are responsible for quality and repair of inside wiring, any software installation, and work necessary to connect their LAN to the Covad DSL service. Tango DSL Connection Software is compatible with the following operating systems: Windows 98/98SE, Windows NT 4.0 or higher, Windows ME, Windows 2000, Windows XP Home, Windows XP Pro, Mac OS 8.6, Mac OS 9.1 or higher, and Mac OS 10.1 or higher. TeleSurfer customers with an operating system other than one of these must provide their own PPPoE connection software. Covad Customer Care will not support any PPPoE connection software other than that provided in the Covad installation kit.

DIAL INTERNET SERVICE DESCRIPTION

As part of the Dial Internet Service, the Customer will receive the following:

- 150 hours of dial service each month; additional hours charged at $1.50 per hour or fraction thereof.
- Five (5) email accounts at Covad.net domain
- Ten (10) MB web space at Covad.net domain
- 24x7x365 customer support
- Access to online SMART Account Manager tool

INTERNET SERVICES POLICIES

Only Covad technicians may complete delivery of a Customer Circuit (except in the case of Self Installation Services). Covad will not authorize the Customer or a Customer-designated vendor to complete Customer Circuit delivery. This applies to all TeleSpeed and TeleXtend Internet Services and TeleSurfer or TeleSoho Professional Installation Services, but does not apply to Self Installation Services until such time that any of the Services rendered under Professional Installation are needed or specifically requested by Customer (e.g., NID splitter installation is required).

If Covad cannot deliver the ordered service due to technical issues, and the Customer does not want a downgraded service speed, Covad will allow the Customer to cancel the order. The Customer will not be liable for any service setup and equipment

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fees, other than fees for Missed Appointments (if applicable). For TeleSpeed orders, a service installation will be considered successful if a signal is successfully passed from Covad's IP PoP to the NID at the Customer's premises at the minimum requested bitrate in each direction.

Due to the rate adaptive nature of ADSL orders, the technician will not change a TeleSurfer or TeleSoho Internet Service order while completing the installation. The TeleSurfer or TeleSoho order is closed and billed at the rate of the service ordered. If not satisfied, the Customer has thirty (30) calendar days from completion of the TeleSurfer or TeleSoho order to submit a change order at no charge by calling Covad Customer Care at 1-888-64-COVAD to downgrade or cancel the order. On downgrades, Covad does not refund the difference in service pricing on previous service charges.

STANDARD INSIDE WIRING POLICIES FOR TELESPEED AND TELEXTEND INTERNET SERVICES

Standard Inside Wiring Services, as outlined below, for TeleSpeed and TeleXtend Internet Services are not billable. The technician will perform the following services as necessary (provided that such services can be completed within the two hour installation window):

- Positive identification of a new Covad circuit delivered to the Customer's NID;
- Toning, tracing and completing all necessary cross connects on existing inside wiring between the Covad circuit at the NID and the Customer's designated jack location;
- Wiring of the existing jack to support the DSL or T1 router, *provided that* existing wiring is available;
- Router configuration and line test; and
- Any inside wiring that the technician can complete within 15 minutes.

For any TeleSpeed and TeleXtend inside wiring beyond the Standard (non-billable) Inside Wiring Services listed above, Covad charges standard rates for billable inside wire services. Please see the Other Fees for Covad Services section of this document. Before performing any inside wiring beyond Standard Inside Wiring Services for TeleSpeed and TeleXtend Internet Service, the technician will require the Customer's signature on an Inside Wiring Authorization Form to acknowledge that additional charges may be associated with the work about to be performed.

ADDITIONAL INSIDE WIRING POLICIES

Depending on the extent of inside wiring required, Covad may not be able to complete the inside wiring. The Customer is responsible for completing the wiring or contracting a third-party for such services. Covad does not provide extensive inside wiring services as part of our order delivery process. If the technician determines that extensive inside wiring is required, the technician will confirm successful service activation at the NID. The technician will leave the configured CPE with the Customer, and Covad will close the order. If Covad agrees to do the inside wiring, Covad will schedule such extensive inside wiring as close as possible to the installation services date, and Covad will charge the Customer additional fees for such inside wiring work. Please see the Other Fees for Covad Services section of this document for further details. Covad reserves the right to refuse to do any extensive inside wiring work requested. If the order is cancelled due to extensive inside wiring, Covad will assess standard cancellation and disconnect charges as specified in the Other Fees for Covad Services section.

Extensive inside wiring includes, but is not limited to:

- Tracing and testing existing wire through multiple units, multiple stories, or multiple telephone closets in a high-rise building or business park;
- Other complex wiring situations where physical laying of cable or wiring is required;
- New wiring due to service location greater than 50 feet from the NID;
- Wiring from the NID to a desired location; or
- Moving an existing jack to another location.

CONFIGURATION OF SERVERS

Covad also utilizes certain Internet tools and software to verify the configuration of servers connected to Covad's network. Customers may not operate servers in an "open relay" configuration (a configuration whereby a mail server processes email messages where neither the sender nor the recipient is a local user), as servers configured in this manner expose both Covad's network and that particular Customer to fraudulent and abusive use by third parties. If a Customer requires assistance in determining the configuration of a server and/or instructions to secure a server, please contact abuse-team@covad.com. Please refer to Covad's Acceptable Use Policy, posted at http://covad.net/legal/.

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CUSTOMER PREMISES EQUIPMENT LIMITED WARRANTY

If Customer purchases Customer Premises Equipment directly from Covad, the equipment carries a one-year limited warranty, beginning on the Billing Start Date for the Covad Internet service. If, during the warranty period, Covad deems the equipment to be faulty and believes that a replacement is needed, Covad will:

1. For TeleSpeed and TeleXtend Internet Services, Covad will schedule a technician to go to the Customer's location. Customer will not be billed for a technician visit unless the technician determines the equipment failure was due to the Customer's negligence or abuse of the equipment, in which case Covad's standard fees for a technician dispatch will apply (in addition to Covad's then-standard fees for the replacement CPE).

2. For TeleSurfer and TeleSoho Internet Services, Covad will ship replacement equipment to the Customer and provide freight prepaid packaging for return of the faulty equipment. Instructions on the returns process are available by calling the Covad Customer Care. Covad requires that the Customer return the faulty equipment. In the event the Customer does not return the faulty equipment, Covad will charge Customer the current standard price for a replacement Self Installation Kit.

After expiration of the one-year limited warranty period, Covad will replace such out-of-warranty CPE; provided, however, that Customer will be responsible for the standard charge for the CPE and the technician visit (if applicable). In any instance where Customer pays for new CPE, the warranty period will be reset and will begin on the date the equipment is delivered to the Customer. The warranty period is not reset for warranty replacement equipment that Covad provides free of charge. Covad will only honor the original one-year warranty period that began with the purchase of the original equipment. Customers that migrate to Covad Broadband Solutions from another Covad wholesale partner are not eligible for a new warranty period. Warranty periods are only reset when the Customer pays for a new CPE.

HOSTING SERVICES DESCRIPTION

Covad Hosting Services includes Email and Web Hosting Services. These services allow Customers to outsource the storage, hardware and software requirements for their email system and Web site. In exchange for providing this online service, Covad charges a monthly fee, a set up fee for certain plans, and any other applicable fees set forth below. Covad Hosting Services are designed for individuals and businesses who want to establish an identifiable presence on the Internet. Using these services, Customers can:

- Register a new or transfer an existing domain;
- Include their domain in their email address(es);
- Use Covad-provided or non-Covad provided software to build and manage a web site; and
- Host the Web site on Covad-provided servers, enabling end-users to access the Customer's site.

Covad Hosting Services are available to all broadband access Customers and are not restricted by physical location.

COVAD EMAIL AND WEB HOSTING PLANS

	Email Only	Basic	Enhanced	Premium
Number of Email boxes	10	20	30	50
Web Site Storage (MB)	NA	50	100	250
Web Site Transfer (MB)	NA	2,500	5,000	10,000
Covad Web Builder	NA	Yes	Yes	Yes
Web Reporting	NA	Yes	Yes	Yes
Webmail	Yes	Yes	Yes	Yes
Email Storage (MBs/ mailbox)	10	10	10	10
Web site storage (MBs)	N/A	50	100	250
Web site transfer speed (MBs/mo)	N/A	2,500	5,000	10,000

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*The Email Only plan entitles the Customer to register a domain and use email associated with their domain but does not include any web design and webhosting features.
**Additional email boxes, email and web site storage, and website transfer are available for the additional fees described below.

Covad Hosting Services are shared, meaning that a Customer's web site co-exists with other Customers' sites on the same Covad web server. The benefits to Customers of shared services are that they are more efficient and less expensive.

CONTRACTS

All Customers must accept the Covad Hosting Services Agreement. The contract term is month-to-month and may be canceled by either party as described below. There is no cancellation fee associated with Covad Hosting Services, except that Covad will not refund fees paid to Covad prior to cancellation of the Agreement or any fees collected for domain name registrations. Customers are required to abide by the terms outlined in the Hosting Services Agreement, these Customer Policies and the Acceptable Use Policy. Covad reserves the right to cancel a Customer's service for violation of these terms.

CANCELING SERVICE

Cancellation can occur for one of two reasons:

1. Customer-initiated cancellation:
A Customer may cancel its hosting plan at any time. In the event that a Customer cancels its hosting plan but wishes for Covad to maintain its domain name, the account will remain active and Covad will bill the Customer for the periodic (annual) domain name registration fee. If a Customer cancels its Covad access service, the hosting plan can remain in service and Covad will bill the Customer for the monthly recurring fees for the hosting plan and the periodic (annual) domain name registration fee.

2. Covad-initiated cancellation
Covad retains the right to cancel service at any time by providing Customer with thirty (30) days notice. Covad also retains the right to cancel service at any time for reasons related to:

- Non-payment or other breach of the Hosted Service Agreement
- Violation of the terms in these Policies or the Acceptable Use Policy

All Customer-initiated cancels must be done by calling Covad Customer Care at 888.64.COVAD or by faxing a notice of cancellation Covad at 866.839.2887. In some cases where a Customer has ordered a broadband access service and a hosting plan at the same time, Covad discovers after the order is submitted that it cannot provide broadband access service to the Customer's location. In this instance, Covad will notify Customer via email that Covad was not able to provision the access service that Customer had requested, and Covad will ask Customer if Customer would like to continue with its hosting plan. The Customer has five (5) days to notify Covad of its intent to keep its hosting plan. If the Customer does not notify Covad within five days that Customer would like to keep its hosting plan, Covad will cancel the hosting plan on the sixth (6th) day after email notification.

COVAD EMAIL AND WEB HOSTING SERVICE CUSTOMER CARE POLICY

Covad provides 24x7x365 support for Customers using any hosting plan and covers issues related to:

- Ordering a hosting plan
- Registering or transferring a domain
- Setting up a web site using Covad-provided software
- Helping manage any hosting service features and settings
- Troubleshooting technical problems related to Covad hosting services

As a policy, Covad will not provide support for Hosting Services other than as listed above. In particular, Covad will not:

- Contact the other registrar/provider on behalf of the Customer to transfer a domain
- Resolve domain transfer problems that are caused by the other registrar/provider
- Call the Customer when the domain has been successfully transferred. This can be monitored in SMART.
- Build a web site for the Customer
- Answer in-depth questions about non-Covad-provided web design software (i.e., FrontPage)
- Debug HTML, ASP, or Perl code
- Perform data mining analysis

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ADDITIONAL EMAIL AND WEB HOSTING SERVICE FEES

Add-on Features	Monthly Price
Additional Mailboxes	$2 per email box
Additional Email storage	$3.75 per 5 MBs
Additional Web site storage	$3.75 per 5 MBs
Additional Web site transfer	$1 per 100 MBs
Domain Name Registration	$20 per year

CONTENT MANAGED AND DISTRIBUTED USING COVAD EQUIPMENT AND FACILITIES

By definition, the Customer is using Covad equipment and facilities to store and distribute content via email and a web site. As such, Covad's reputation is at risk if a Customer abuses acceptable use policies set forth by Covad. Please see the Covad Acceptable Use Policy ("**AUP**")to become familiar with these issues.

TELEDEFEND SECURITY SERVICES DESCRIPTION

Service Name	Description
TeleDefend Firewall	Managed firewall service based on NetScreen device and using stateful packet inspection. Covad pre-configures and/or remotely configures the NetScreen device per Customer's order but Customer must self-install the NetScreen device. Once installed, Covad provides remote 24x7x365 customer support and 24x7x365 health monitoring.
TeleDefend VPN/Firewall	Site-to-site virtual private networking ("**VPN**") service based on NetScreen device and using IPSec Triple DES ("**3DES**") encrypted tunnels. Also includes a managed firewall, which uses stateful packet inspection. Covad pre-configures and/or remotely configures the NetScreen device per Customer's order but Customer must self-install the NetScreen device. Once installed, Covad provides remote 24x7x365 customer support and 24x7x365 health monitoring.

Covad may supply new or recertified equipment on new orders. Recertified equipment is equipment that (a) may have been removed from its original packaging by Covad or returned to Covad by an End User after a promotional offer, (b) is free from visible defects, and (c) is equivalent in function and appearance to new units. On new and recertified equipment purchased by Customer through Covad, Covad will provide a one (1) year replacement warranty from the Billing Start Date for manufacturer's defects. At Covad's discretion, any equipment Covad supplies as replacement equipment for existing equipment (e.g., for warranty purposes) may be new, recertified or refurbished. Refurbished equipment is previously owned equipment that has been remanufactured by the manufacturer or its agent, is free from visible defects, and is equivalent in functionality to new units. Any equipment supplied as replacement equipment will carry the remainder of the one (1) year warranty described above.

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FIREWALL CONFIGURATIONS

Customers can specify up to 20 total incoming and outgoing policies for TeleDefend Firewall or TeleDefend VPN/Firewall Services. These policies can be customized to meet most Customer requirements. Customers can define an inbound policy to block all incoming connections for maximum security, or define an inbound policy that will allow access only to host servers for email, web pages, or almost any other IP based service. Outbound policy definitions can be created to limit the types of applications that can be accessed by users from within the network. For example, web surfing can be limited to only specific computers. Customers will work with a designated Covad Sales Engineer to define and implement TeleDefend Firewall and TeleDefend VPN/Firewall Services.

TELEDEFEND PROVISIONING

For each TeleDefend Service, Covad follows the following provisioning process:

- Covad configures the NetScreen device prior to shipping to Customer in the TeleDefend Self Installation Kit. The Self Installation Kit includes one (1) NetScreen device with a static and public IP address assigned, required cables, and installation instructions. For TeleDefend VPN/Firewall services, one (1) NetScreen device is needed for each site.
- Covad ships TeleDefend Self Installation Kit(s) to Customer's site(s). Covad notifies Customer of shipped TeleDefend Self Installation Kit(s) via an email, which includes shipping information. Upon receipt, Customer installs NetScreen device per installation instructions and calls Covad Customer Care to finalize configuration and activate service.
- Covad commences billing at the earlier of: (a) the time at which Customer has successfully completed the installation process and Covad has confirmed activation in an email and/or phone call, or (b) ten (10) business days after Covad has shipped the TeleDefend Self Installation Kit.

TELEDEFEND SERVICE LEVEL AGREEMENT

TeleDefend Customers receive TeleDefend-specific SLA. Additional SLAs might apply based upon the access service subscribed to by the customer. The TeleDefend SLA represents Covad's commitment to providing reliable security services for its Customers and is Customer's only remedy for service-related issues.

Time to Respond: Covad will respond to each TeleDefend configuration change request or trouble ticket within 24 hours. If Covad does not respond within such a 24 hour period, Covad will credit Customer 10% of monthly TeleDefend Service charges at the affected site per incident, up to a maximum of 30% per month. The Customer must proactively report failure to meet this SLA to receive credit for the month of the request.

Emergency Hardware Swap: In the event of a TeleDefend hardware failure, Covad will replace the security hardware within two (2) business days of when the failure is reported to and confirmed by Covad Customer Care. If Covad does not replace the security hardware within the two (2) business days, Covad will credit Customer 10% of monthly TeleDefend Service charges at the affected site per incident, up to a maximum of 30% per month. The Customer must proactively report failure to meet this SLA to receive credit.

All credit requests must be made pursuant to Covad's credit procedures outlined in the Claims and Credit Availability section of this document. In addition, TeleDefend Claims and Credit Availability are subject to the following conditions:

- Customer must contact Covad Customer Care immediately upon TeleDefend Service failure to perform;
- Covad must be at fault for the failure to meet the SLA (as determined by Covad in its sole and reasonable commercial judgment); and
- Customer must provide Covad remote access to the security hardware and other Covad-provided CPE at all necessary times.

COVAD BILLING POLICIES

Billing for access initiates the day the Customer's order is closed (the "**Billing Start Date**"). A first invoice will be generated at such time. All subsequent invoices will be generated based on Customer's monthly anniversary date. Customer's monthly

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anniversary date will be the date the Customer registered with Covad and created a Covad account. . For example, if Customer created an account on July 6 and the order closed on July 20, a first invoice will be generated July 20 covering the installation, CPE and other non-recurring fees as well as monthly recurring fees pro-rated from July 20 until August 6. On August 6, an invoice will be generated to cover monthly recurring fees for the period from August 6 through September 6. Subsequent invoices will be generated on the 6th of each month, covering monthly recurring fees, which are due in advance and any pro-rated fees or non-recurring fees from the previous month.

The Billing Start Date for hosting services is dependent on whether the Customer ordered a hosting plan at the time access was ordered, if a hosting plan was purchased separately from access or if Customer does not have Covad access services. Monthly service charges, upgrades/downgrades and move orders are pro-rated for access and hosting plans. The billing policy for these scenarios is described below:

1. Customer orders access and hosting plan at the same time:
In the event that a Customer orders a hosting plan at the same time a Covad broadband service is purchased, billing initiates the day that the Customer's access order closes. If, as described earlier, Covad is not able to provision the access plan originally requested, then Covad will notify the Customer and offer alternative access plans. The Billing Start Date for the hosting plan is dependent on the alternative access choice and is outlined in the following table:

Customer Access Choice	Billing Start Date
Customer selects alternative broadband service	Billing begins on the day the alternative order is closed
Customer selects Covad Dial-Up plan	Billing begins on the day the alternative order is closed
Customer cancels Covad access service	Hosted billing continues without change

2. Customer orders a Covad hosting plan at a different time than access or does not order Covad access:
If a Customer does not have Covad access services and does not order Covad access services, the Billing Start Date will be the date Customer registered with Covad and created an account and such date will be the monthly anniversary date. If a Customer purchases an access plan at a later date, fees for both access and hosting will be billed on the monthly anniversary date set when Customer created an account with Covad. If Customer has access and later adds a hosting plan, the anniversary date for access will match the anniversary date set when Customer created its account in connection with the access services. Fees for hosting are then pro-rated to match the billing anniversary date for access.

In both cases (1 & 2), Covad will send one integrated bill that reflects charges for all Covad services.

Customer may select one of three payment options: (1) check payment; (2) credit card payment or (3) automatic electronic funds transfer, when available to them. With the exception of government entities, all payment options may not be available for all billing (notify) methods. A Customer paying by check will receive paper invoices ("invoice billing"). A Customer paying by credit card or EFT will receive email statements. If Customer selects either credit card or electronic funds transfer, Covad will automatically debit such account each month. The Customer will receive an email of the monthly statement on their "invoice date", which is based on Customer's monthly anniversary date. If Customer selects invoice billing, Customer must remit payment to Covad each month. The Customer will receive a copy of the monthly invoice in the mail. As described above, a Customer is billed one month in advance for monthly recurring charges. For example, a customer billed on August 1st is charged from July 1st to July 31st for non-recurring charges as well as from August 1st to August 30th for monthly recurring charges. Customer shall be responsible for payment of any taxes or shipping charges. If Customer fails to pay any bill when due, Covad shall have the right to terminate the services and charge any disconnection and/or early termination fees that would apply if Customer had elected to terminate the Services. Payments are considered late if received after the due date.. For all late payments, Customer may be assessed interest at the lesser of (a) 1.5% per month on the outstanding balance due Covad or (b) the maximum interest charges permitted under applicable law. Covad may charge a processing fee of $25.00 for returned checks.

An account with a multi-line end-user hierarchy (**"parent account"**) may select consolidated billing (one invoice for all end-user accounts; sent to the consolidated parent) or individual billing (separate invoices for each end user account; sent to the separate end-user payers). For purposes of definition, a consolidated parent account or a sub-account within an individual parent account hierarchy are treated as a "Customer" under the above billing and payment terms and conditions.

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SERVICE DISCONNECTION AND SATISFACTION GUARANTEE

For TeleSurfer, TeleSoho, TeleSpeed, TeleXtend Internet Services and TeleDefend Security Services, Customers have thirty (30) calendar days after the Billing Start Date to request a disconnection without an early termination fee. If the disconnection request is received in the first thirty (30) calendar days of service, Covad will provide a refund credit equal to all fees billed, with the exception of any fees associated with a Missed Appointment charge and/or the Self-Installation Kit or Equipment. If Customer disconnects the service within this thirty (30) calendar day 'grace period' following the Billing Start Date, Customer may return the TeleSurfer or TeleSoho Installation Kit for a full refund only if all equipment is included, if it is in its original working condition and original packaging and if it is received by Covad within thirty (30) days after Customer's disconnection request. Customer must call Covad Customer Care to disconnect the Customer Circuit. TeleSurfer and TeleSoho Customers will need to use the return label that was included in their installation kit. Customer should give the tracking number on the label to the Customer Care Agent so that Covad can track the status of the shipment. Upon verfication that the shipment reached its destination intact, a credit will be issued to the Customer's account. TeleSpeed and TeleXtend customer will receive a shipping label in the mail from Customer Care upon notifying Covad that they will be taking advantage of the 30 Day Satisifaction Guarantee. Covad will track the status of the shipment and issue a credit to the Customer's account upon verification that the shipment arrived intact. Customer is responsible for any shipping charges for returned equipment.

Standard termination fees will apply after this thirty (30) calendar day period and Customers will no longer be able to return their Self Installation Kit or other Equipment for credit. Termination fees will apply for Customers that switch their service to another provider prior to fulfilling their term agreement.

For Email and Web Hosting Service, Customers who cancel within 30 days of ordering a plan will receive a full refund for the set-up fees and the monthly recurring cost, including additional features. However, if a Customer has registered a domain, this fee will not be refunded as the Customer now owns that domain and has the right to transfer it elsewhere.

Applicable termination fees shall be the lesser of (a) the fees for the remaining balance of the Customer Term or (b) the applicable Terminationion Fee set forth in the Other Fees for Covad Services section of this document.

To disconnect a service, the Customer can choose one of two methods: 1) Call Covad Customer Care at 888.64.COVAD or 2) Fax a notice of cancellation to Covad at 866.839.2887.

CUSTOMER INITIATED SERVICE CHANGE DUE TO CUSTOMER MOVE

All Covad Customers who are initiating a change in service due to a move require a Move Order. The process for a Move Order requires a physical move of the Customer Circuit from one location to another; therefore the existing line will need to be disconnected and a new order entered for the new location. Upon disconnecting the existing Customer Circuit, the Customer will be charged the standard Early Termination Fee (noted in the "Other Fees for Covad Internet Services" sections below). However, once the Customer establishes Covad Internet service at the new location and retains the Internet service for at least 30 days, Covad will apply a Retention Bonus equal to the Early Termination Fee plus fifty percent (50%) of the new Service's first month's monthly recurring fee in the form of a credit on the Customer's next invoice or credit card billing statement.

Move Orders can be initiated by calling Covad Customer Care at 1-888-64-COVAD, or by visiting SMART Account Manager at www.covad.net.

TeleSurfer and TeleSoho Customers may re-use their existing equipment at their new location provided that equipment is compatible with their new service. Customers need to inform the Covad Customer Care Representative that they are moving locations and are planning on reusing their existing equipment. If the Customer fails to inform the Covad Customer Care Representative of the Move Order, a new CPE will be shipped and Customer will be billed for a new CPE. If the Customer does not retain the new service for at least 30 days, the Retention Bonus will not be paid.

TeleSpeed and TeleXtend Move Orders will require Professional Installation services at the new location. Standard Professional Installation charges will apply. Customers are advised to allow 30 days for the service to be installed at the new locations. TeleSpeed and TeleXtend Customers may re-use their existing equipment at their new location. Customers need to inform the Covad Customer Care Representative that they are moving locations and are planning on reusing their existing equipment. If the Customer fails to inform the Covad Customer Care Representative of the Move Order, a new CPE will be installed by the Covad Field Service Technician and the Customer will be billed for a new CPE. Once the Customer establishes

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TeleSpeed or TeleXtend Internet Service at the new location and retains the Internet service for at least 30 days, Covad will apply the aforementioned Retention Bonus in the form of a credit on the Customer's next invoice. If the Customer does not retain the new service for at least 30 days, the Retention Bonus and credit will not be paid.

In the event that Customer chooses to upgrade or downgrade to a different Internet Service requiring different CPE in connection with the move, Customer will need to order a new CPE and will be billed for the new CPE. Standard installation and equipment rebates available at the time of the move (if any) will apply. If Customer's requested Internet Service is not available at the new location or Covad does not provide any service to the Customer's new location, the disconnection will not be considered a move under this section. In such case, the standard Early Termination Fee will apply if applicable, and no Retention Bonus will be paid by Covad.

All Move Orders require the Customer to accept a new contract and new term agreement for the new service. Covad does not apply the Customer's previous contract or term agreement to the new service. Additionally, Customers will be subject to current Covad pricing for their new service. Covad does not guarantee that the Customer will be able to get the same pricing or service in their new location.

BILLING DISPUTES

If a Customer has a justified, good-faith dispute with any amounts on an invoice, Customer has (60) calendar days from the invoice date to claim a dispute by submitting in writing to support@covad.net or by calling Covad Customer Care at 1-888-64-COVAD. Customer must pay all amounts, whether or not in dispute, by the invoice due date. If Covad determines that Customer is entitled to a credit, Customer shall receive a credit on Customer's next invoice. If Customer fails to notify Covad of billing discrepancies within this (60) calendar day period, Customer will not be eligible for credit or invoice adjustments.

ACCEPTING NEW CONTRACTS

Covad may from time to time reduce pricing on existing services. Existing Customers have the opportunity to take advantage of the new pricing by accepting the terms of a new agreement. Unless otherwise stated, there will be an additional one or two year term requirements if the Customer accepts the new agreement. The Customer must visit SMART Account Manager (www.covad.net) to review any new pricing, and accept the terms of the new agreement.

OTHER FEES FOR COVAD INTERNET SERVICES

TELESURFER AND TELESOHO INTERNET SERVICES

INSTALLATION, REPAIR, AND TERMINATION FEES

Description of Service Provided	Price
TeleSurfer Internet Services Self Installation Kit	$99.00
TeleSoho Internet Services Self Installation Kit	$149.00
Professional Installation for TeleSurfer Internet Services	$99.00
Professional Installation for TeleSoho Internet Services	$175.00
Field Service Technician Dispatch Charge for TeleSurfer Internet Services	$99.00
Field Service Technician Dispatch Charge for TeleSoho Internet Services	$175.00
Missed Appointment Charge	$99.00
Early Termination Fee for TeleSurfer and TeleSoho Internet Services – After completion of service installation option by Covad and prior to completion of Customer term.	Lesser of remaining contract value or $250.00

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TELESOHO IP ADDRESS FEES

IP Address Block	Usable	Set-Up Charge	Monthly Charge
256 with NAT	253 (NAT allows private IP address space behind the router)	Complimentary default	Complimentary default
8	5*	$0	$10

* For this configuration, Covad uses two (2) static IP addresses to provide the service and assigns one (1) static IP address to the router. A total of three (3) static IP addresses will be unavailable to the Customer.

TELESPEED AND TELEXTEND INTERNET SERVICES

CUSTOMER PREMISES EQUIPMENT FEES

Customer Premise Equipment	Applicable Service(s)	Price
Netopia R4652-T IDSL/SDSL Router	TeleSpeed 144, 384, 768, 1.5	$359.00
Efficient Networks Speedstream 5871 IDSL Router	TeleSpeed 144	$359.00
Efficient Networks Speedstream 5851 SDSL Router	TeleSpeed 384, 768, 1.5	$359.00
Netopia 4622 T1 Router	TeleXtend 384, 768, 1.5	$599.00
Efficient Networks 5940 T1 Router	TeleXtend 384, 768, 1.5	$599.00

IP ADDRESS FEES

IP Address Block	Usable	Set-Up Charge	Monthly Charge
256 with NAT	253 private IP Addresses behind the router	Complimentary default	Complimentary default
8	5*	No Charge (Requires IP Justification Form)	Complimentary (By request only)
16**	13*		$10.00
32**	29*		$15.00
64**	61*		$20.00
128**	125*		$25.00
256**	253*		$50.00

* For these configurations, Covad uses two (2) static IP addresses to provide the service and assigns one (1) static IP address to the router. A total of three (3) static IP addresses will be unavailable to the Customer. NAT is not available for these configurations.
** For configurations with 16, 32, 64, 128, or 256 IP addresses, the Customer must complete ARIN information forms, to justify the need for the large blocks of IP addresses. Covad does not guarantee approval of all IP address requests.

INSTALLATION, REPAIR, CANCELLATION AND TERMINATION FEES

Description of Service Provided	Price
TeleSpeed Setup and Installation Charge	$225.00
TeleXtend Setup and Installation Charge	$450.00
Inside Wiring Charge - First Hour minimum Additional 15 minute increments after initial hour	$88.00 $20.00
Field Technician Dispatch Charge - First hour minimum charge for dispatch during normal business hours Additional 15 minute increments after initial hour	$88.00 $20.00
Early Termination Charge	Lesser of remaining contract value or $500.00
Missed Appointment Charge	$99.00
Special Construction Fees	See Below

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SPECIAL CONSTRUCTION FEES

For TeleXtend Internet Services, Special Construction Fees may apply for any additional non-standard work at the Central Office facility or Customer's premises necessary to deliver the service. Details of the special construction work along with the associated fees will be communicated to the Customer via email prior to any work beginning. If the Customer does not respond to Covad within twenty (20) days of receiving the special construction notice, the Customer's order will be cancelled. All TeleXtend orders requiring Special Construction require Customer approval in writing (including email acceptance of the Special Construction Fees) prior to processing. Any Special Construction Fees incurred by Covad will be charged to the Customer along with any other applicable one-time installation or equipment fees. If the Customer cancels a TeleXtend order after approving Special Construction Fees, the Customer will be responsible for any charges incurred by Covad as a result of that Special Construction plus any additional cancellation fees.

ADDITIONAL SERVICES FEES

DIAL-UP INTERNET SERVICE FEES

Service	Usage per Billing Cycle	Charge
Overage Usage	More than 150 hours for stand-alone Dial service More than 10 hours for TeleSurfer, TeleSoho, TeleSpeed and TeleXtend Internet Services	$1.50/hour or any portion thereof
800 Service	Any amount of time above zero minutes	$4.50/hour or any portion thereof

TELEDEFEND SERVICE FEES

Description of Service Provided		Charge
NetScreen device		$0.00
TeleDefend Self Installation Charge		$0.00
Termination Charge per Site - Post Self Installation Kit has been shipped but prior to 12-month term.		$500.00
Returned Security Hardware charge – Failure to return NetScreen device within thirty (30) days of Termination. Charge based on age of NetScreen device from service start date.	0-3 months	$1,100
	4-6 months	$950
	7-9 months	$800
	10-12 months	$650
	13-15 months	$500
	16-18 months	$350
	19-21 months	$200
	22-24 months	$50
	25+ months	$0

If Customer chooses not to return Security Hardware the above charges will apply. All equipment should be returned in the original working condition and original packaging within thirty (30) days after Customer's disconnection request. Failure to return the equipment in the original packaging, in working condition within the thirty-day period will result in a charge for the equipment as set forth in the above table based on the age of the NetScreen device from service start date. Customer must call Covad Customer Care to receive a Return Materials Authorization ("RMA") number and include the RMA number with the package. Customer is responsible for any shipping charges for returned equipment. Covad will not accept equipment without RMA identification and will charge the Customer for the equipment based on the above table if the equipment is returned without RMA identification.

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GLOSSARY

Backbone
- A major transmission path used for high volume network to network connections.
- In Covad's network, the backbone network consolidates data traffic from the individual DSL lines into a backbone network for delivery to the Internet and/or other regions.

Bandwidth
- The amount of data that can flow through a given communications channel in a specified period time, usually seconds.

Bridge
- A device that connects two networks as a seamless single network using the same networking protocol.
- Bridges operate at the hardware layer and do not include IP routing functionality. They simply forward packets without analyzing and re-routing messages.

CO or Central Office
- A telephone company facility within which all local telephone lines terminate and which contains equipment required to switch Customer telecommunications traffic.

Commercially Reasonable Effort
- A service that does not carry a QoS (Quality of Service) or a SLA (Service Level Agreement), often times with no minimum throughput guarantees.
- Covad's ADSL Internet Services (TeleSurfer and TeleSoho Internet Services) are considered "*commercially reasonable efforts*"

CPE or Customer Premises Equipment
- Any equipment located at a Customer's premises. Modems, bridges and routers are considered CPE.
- Covad provides Netopia CPE for TeleXtend Internet Service, Netopia and Efficient Networks CPE for TeleSpeed Internet Service, and ZyXel CPE for TeleSoho Internet Service. For TeleSurfer Internet Services, Covad provides an Ethernet modem in the Self Installation Kit (no brand specified).

CSU/DSU or Channel Service Unit/Digital Service Unit
- A common type of CPE for T1 services, the CSU/DSU terminates the physical connection and provides physical protection and diagnostic and monitoring features.

Demarc or Demarcation Point
- The point at the Customer premises where the line from the telephone company meets the premises wiring.

DHCP or Dynamic Host Configuration Protocol
- A protocol that allows end user workstation information including IP addresses to be dynamically assigned by a server on an as-needed basis.
- DHCP server functionality is built into most DSL routers.

DNS or Domain Name System
- The name resolution service for IP addresses that provides the friendlier text-based addresses for Internet resources. Example: 192.168.1.1 = www.yourwebpage.com.

DSLAM or Digital Subscriber Line Access Multiplexer
- The device typically deployed at the CO that terminates all the DSL lines serviced by the CO.
- Covad places it's own DSLAMs in leased space in a LEC's CO.

Dynamic IP
- An IP address is assigned to the client for the current session or some other specified amount of time.

Encryption
- Scrambles data in flight so the data is of no use if intercepted. It is the conversion of data into a form, called a ciphertext, which cannot be easily understood by unauthorized people. In order to recover the contents of an encrypted signal, the correct decryption key is required.
- Common forms of encryption include DES and 3DES. Covad's TeleDefend Service uses 3DES.

Ethernet
- A LAN technology that uses CSMA/CD delivery that can run over different media (cabling).
- Most of today's Ethernet LANs use twisted pair 10Base-T wiring that can support both standard Ethernet at 10Mbps and Fast Ethernet at 100Mbps

Firewall
- A device or software that filters the traffic exchanged between networks, enforcing each network's access control policy.

FOC or Firm Order Commitment

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- A FOC is provided by the LEC and references the date that the LEC will perform the necessary work for Covad to establish a Customer's Internet service.

ILEC or Incumbent Local Exchange Carrier

- Also known as the telephone company, telco, LEC, RBOC, etc.

Inside Wiring

- Refers to wiring on the Customer side of the demarcation point.
- Customers are responsible for maintaining and extending inside wiring as needed to deliver Covad Internet Services.

IP Address or Internet Protocol Address

- A dotted decimal notation used to represent IP addresses. Example: 192.168.1.1

IPSec or Internet Protocol Security

- A developing standard for security at the network or packet processing layer. IPSec doesn't require changes to individual computers and is extensible, so new encryption standards can be swapped in as they become available.
- Provides 2 functions: authentication and encryption; and uses 3 components: AH, ESP and IKE. (AH -- Authentication Header, verifies authenticity of each packet. ESP -- Encapsulating Security Payload, encrypts the entire packet, and places it in a larger packet. IKE -- Internet Key Exchange, is the set of procedures that IPSec devices use to transfer security keys.)

Line sharing

- Line Sharing is a method of DSL line delivery that involves using an existing telephone line into the Customer's premises by electronically multiplexing the voice and data signals on the same physical wire.
- Line sharing separates the low voice frequencies and the higher data frequencies running across the same line

Local Loop

- A generic term for the connection between the Customer's premises and the telephone company's serving wire center.

NAT or Network Address Translation

- An Internet standard that allows a Customer's local network to use private IP addresses, which are not advertised to other users on the Internet. The IP address used for the router is the only IP address visible to the public Internet.
- Covad offers NAT with certain configurations of TeleSoho, TeleSpeed and TeleXtend Internet Services.

NIC or Network Interface Card

- The hardware that forms the interface between the computer (or other network device) and not only the data communications network for the LAN but also the IP connection through the DSL bridge or router.

NID or Network Interface Device

- A phone company installed device that connects a Customer's inside wiring to the telephone network. It is typically a small box installed on the exterior premises, basement or garage.

NID Splitter

- A device that a Covad technician installs at the Customers NID for line sharing orders. The splitter separates the voice traffic from the data traffic on the Customer's existing phone line.

PPPoE or Point-to-Point Protocol over Ethernet

- Covad uses PPPoE software to establish an Internet connection for certain Internet services.
- For TeleSurfer Link, TeleSurfer, and TeleSurfer Plus Internet Services, PPPoE software is required on the Customer's PC.

RJ-11

- A standard modular connector (jack or plug) that supports two pairs of wires (4 wires). Commonly used for most PSTN CPE such as a telephone, fax machine, modem

RJ-45

- A standard modular connector that can support up to four pairs of wires (eight wires).
- Commonly used with Category 5 ("Cat 5") cabling to create 10Base-T or 100Base-T networks.

Router

- A router is a device that connects two networks. Routers are similar to bridges, but provide additional functionality, such as the ability to filter messages and forward them to different places based on various criteria.
- The Internet uses routers extensively to forward packets from one host to another.

Static IP

- An assigned IP address used to connect to a TCP/IP network.
- The IP address stays assigned to the specific host or network device, so the same address can always be used to reach that device.

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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION.	))))))	**DOCKET NO. T-03632A-04-0425** **T-01051B-04-0425**

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 direct testimony in Docket No. T-03632A-04-0425.

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 13th day of December, 2004.

LORI L. WHITE
COMMISSION EXPIRES
NOTARY
PUBLIC
STATE OF WASHINGTON

Notary Public

My Commission Expires: 7/10/07

EXHIBIT
Qwest 7
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE PETITION OF DEICA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	)	DOCKET NOS. T-03632A-04-0425 T-01051B-04-0452

REBUTTAL TESTIMONY OF WILLIAM R. EASTON

ON BEHALF OF

QWEST CORPORATION

PAYMENT ISSUES

(Disputed Issue Nos. 8-1, 8-2, and 8-3)

JANUARY 18, 2005

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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 REBUTTAL TESTIMONY?

A. The purpose of my testimony is to respond to the direct testimony of Elizabeth Balvin relating to payment for services and the amount of time that Qwest must wait before Qwest can discontinue taking orders or disconnect services due to Covad's non-payment for services. These are Disputed Issues 8-1 (Due Dates for

Amounts Payable), 8-2 (Timing for Discontinuing Orders), and 8-3 (Timing for Disconnecting Services) in this arbitration proceeding.[1]

III. RESPONSE TO COVAD'S PAYMENT ISSUE TESTIMONY

Q. ON PAGE 2-5[2] OF HER TESTIMONY, MS. BALVIN OFFERS NEW LANGUAGE ON PAYMENT ISSUES. IS THIS NEW LANGUAGE ACCEPTABLE TO QWEST?

A. No. Covad's revised position is still out of line with industry practice, the payment terms followed by all other CLECs in Arizona, the consensus language that was agreed to during the 271 process and the language that appears in Qwest's Arizona SGAT. Furthermore, in the case of the revised payment due date language, the new proposal is unworkable from a systems and administrative standpoint. Covad is now proposing that some bills have a 45 day due date, and others a 30 day due date, depending on whether certain items appear on the bill. To implement the necessary system changes would require billing system logic different from that used for all other Qwest CLEC customers and would require major effort and expense.

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[1] Although Ms. Balvin's direct testimony identifies payment issues as Issue 9, Covad's Petition for Arbitration identifies them as Issue 8, which is the way I identified them in my direct testimony and the way I identify them here.

[2] All page number references are to the non-confidential version Ms. Balvin's testimony.

1 Even more problematic from a systems standpoint than treating different items on
2 the same bill differently, is Covad's request that new products be treated
3 differently for twelve months, and then revert back to the 30 day payment period
4 used for previously ordered products. This means that the billing systems must
5 have the capability of determining when a CLEC orders a new product, the
6 capability to treat bills with new services on them differently, and the capability to
7 turn off the exception treatment at the end of 12 months. The Covad language
8 also begs the question of what constitutes a new product. If a CLEC had been
9 ordering 2 wire loaded loops and at some point in the future ordered a 2 wire
10 unloaded loop, would this be considered a new product even though there is no
11 difference from a bill presentation and billing validation perspective?

12 Covad's revised position on this issue is particularly surprising in light of Covad's
13 testimony before the Colorado Public Utilities Commission. Ms. Megan
14 Doberneck of Covad was asked by the Administrative Law Judge in Colorado
15 about limiting the 45 day payment period to specific products as opposed to all
16 products.[3] Her response was that exceptions for certain items would be difficult
17 for Covad, stating, "It is extraordinarily difficult, as a business, to create
18 exceptions to the rule, rather than having a standardized relationship across the

---

[3] *In the Matter of Petition of Qwest Corporation for Arbitration of an Interconnection Agreement With Covad Communications Company Pursuant to 47 U.S.C 252(b),* Docket No. 04B-160T. (Public Utilities Commission of the State of Colorado) Transcript Vol. 1 at pages 88:23 – 89:21 and 110:21 – 111:15. See Exhibit WRE-Reb-1 attached.

board."[4] The new Covad proposal would place that extraordinary difficulty on both Qwest's and Covad's shoulders.

Q. MS. BALVIN ARGUES AT PAGE 22 OF HER TESTIMONY THAT THE 30 DAY INDUSTRY PAYMENT STANDARD REALLY RELATES TO ACCESS PRODUCTS WHERE THERE ARE INDUSTRY STANDARDS FOR BILLING FORMATS AND THAT THIS SAME STANDARD SHOULD NOT APPLY TO THE WHOLESALE PRODUCTS WE ARE CONCERNED WITH HERE. DO YOU AGREE?

A. No. First, Qwest's bill formats for these are well established. Covad has been receiving an ASCII formatted electronic bill from Qwest for years. Covad has already had sufficient time to work out their internal processing of these bills. Qwest also offers an industry standard EDI formatted bill should Covad prefer that format.

Second, Ms Balvin suggests that 30 days is an acceptable timeframe for access services billing since access services are long-established products. However, even in 1984, when access service billing was brand new, and both the billing companies and the recipient companies were dealing with brand new systems and processes to deal with the new services, 30 days was still an acceptable timeframe. Attached as Exhibit WRE-Reb-2 is a page from Pacific Northwest

[4] *Id.* at 111:12-15.

Bell's 1/1/84 FCC Access tariff which specifies that bills "are due 31 days (payment date) after the bill day or by the next bill date (i.e., same date in the following month as the bill date) whichever is the shortest interval ...." Thirty days should be acceptable here too. As discussed in my direct testimony, there is a 30 day payment period in the parties' current ICA, in Qwest's Arizona SGAT, in numerous ICAs with other CLECs, in Qwest's FCC access tariff (FCC No. 1) and in the Qwest Arizona Access Service Tariff. Furthermore, in the Commercial Line Sharing Agreement entered into between Qwest and Covad in April of 2004, Covad agreed to a 30 day payment term.

Q. WOULD CHANGING THE DEADLINE FOR PAYING THE BILL TO 45 DAYS ALLEVIATE THE BILLING PROCESS PROBLEMS COVAD ALLEGES?

A. No. From a process perspective, Qwest would continue to issue bills on a monthly cycle to Covad. Taking 45 days to verify one month's bill, when the next month's bill will be arriving in 30 days, would serve only to put the bill verification process out of synch with the bill payment process. Indeed, under the process proposed by Covad, and based upon its claim that it requires 45 days to validate and pay each month's bill, Covad would only have 45 days to review its first month's bill and would thereafter fall behind in its bill validation, since subsequent bills are generated every 30 days.

1 **Q. MS. BALVIN DEVOTES A SIGNIFICANT PORTION OF HER**
2 **TESTIMONY TO ALLEGED BILLING ERRORS AND DEFICIENCIES.**
3 **ARE THE DISPUTED PORTIONS OF SECTION 5.4 OF THE**
4 **INTERCONNECTION AGREEMENT THE APPROPRIATE PLACE TO**
5 **ADDRESS BILLING PERFORMANCE?**
6 A. No. The section of the agreement that is in dispute in this arbitration is titled
7 "Payment," and addresses the obligations of the billed party to make payments in
8 a timely manner and the actions the billing party may take should payments not be
9 timely. Covad initially seemed to recognize this, because the only language in
10 dispute when Covad filed its Petition for Arbitration was the number of days
11 required to pay a bill and the number of days before Qwest could pursue its
12 remedies in the event of non-payment. Through this arbitration process, and as is
13 reflected in its newly proposed language, Covad seeks to insert new issues into
14 the arbitration proceeding, (i.e. the bill format), that were not part of the
15 negotiations and that are not appropriately part of this arbitration process. A §252
16 arbitration proceeding is limited to disputes regarding the language of the parties
17 interconnection agreement. It is not the proper forum for determining process
18 changes that will affect the entire CLEC community.

19 Billing format issues, such as those raised by Ms. Balvin, should be addressed
20 through the Change Management Process (CMP) which was designed specifically
21 to address process and system issues. Ms. Albersheim's testimony will address

issues Ms. Balvin raises regarding the CMP process and explain how CMP handles process and systems changes.

Q. ON PAGE 7 OF HER TESTIMONY MS. BALVIN ARGUES THAT BILL ANALYSIS IS COMPLICATED BY THE FACT THAT QWEST FAILS TO PROVIDE CIRCUIT ID INFORMATION ON BILLS FOR LINE SHARING SERVICES. PLEASE COMMENT.

A. The real issue here is not that the circuit ID is "missing" as Covad describes it, but rather that the circuit ID is not the relevant identifier for line sharing services. Qwest does provide the circuit identification field on bills when the circuit ID is the relevant identifier for a particular charge. For example, bills for Unbundled Loops, Private Lines and similar circuits do contain the circuit ID. However, most telecommunication services do not use the circuit ID as an identifier. In the case of line sharing, for the reasons discussed in the testimony of Ms. Albersheim, the relevant identifier is not the circuit ID. To identify line sharing services, Qwest assigns a unique identification number to the loop over which Covad is providing line sharing. Ms. Albersheim's testimony, which discusses the technical aspects of this issue, explains in detail that Qwest provides this unique identification number to Covad as a part of the Firm Order Confirmation (FOC) that is issued in the service provisioning process, just as circuit IDs are provided via the FOC for those products that are circuit based. As Ms. Albersheim explains, this unique identification number provides Covad with a direct and

efficient means of verifying that the service for which Covad has been billed is the service that Covad ordered. This identification number is also a part of the Customer Service Record (CSR) that Covad may readily access electronically. This process for billing line sharing, its rationale, and the ready means by which line sharing bills may be validated, have been explained numerous times to Covad by Qwest billing personnel.

Q. HAS COVAD RAISED THIS CIRCUIT IDENTIFICATION ISSUE IN THE CMP PROCESS?

A. Yes. However, Covad did not raise this as a billing issue in CMP until October of 2004, nearly two years after the parties began negotiation of their interconnection agreement, and five months after filing its direct testimony in Colorado, the first state to conduct an arbitration proceeding.

Q. ON PAGE 10 OF HER DIRECT TESTIMONY, MS. BALVIN STATES THAT IN THE ABSENCE OF A CIRCUIT ID NUMBER, COVAD IS "UTTERLY UNABLE" TO CONFIRM WHETHER QWEST IS BILLING COVAD FOR A LOOP IT HAS ORDERED. PLEASE COMMENT.

A. Ms. Balvin's claim is false. As I just discussed, Qwest does provide Covad with information that allows it to track line sharing orders and validate line sharing bills. Covad is unwilling to modify its systems to utilize this information and instead asks that it be treated differently than all other CLECs, requiring Qwest to

modify its systems, at an extraordinary cost, and allow payment terms different than those followed by everyone else.

Q. PLEASE PROVIDE SOME BACKGROUND REGARDING THE LINE SHARING PRODUCT.

A. Several years before the FCC required line sharing, Qwest was the first ILEC in the country to implement this product and did so in Minnesota in early 2000. In leading the country with a line sharing product, Qwest and the CLECs, including Covad, engaged in discussions to make the product available as quickly as possible. At the CLECs request, Qwest designed line sharing using the non-design provisioning flow process, a process which does not associate circuit ID with the services. That implementation was mutually agreed to by Qwest and the CLECs. The process has been in effect since line sharing began, and Covad has received bills in essentially the same format since then. It was not until after this arbitration began that Covad first raised the issue of lack of circuit IDs on bills, leading one to wonder how serious a billing concern this actually is, as opposed to an excuse to gain the float of a later payment date.

Q. MS. BALVIN STATES THAT THE LACK OF CIRCUIT ID IS ONLY AN ISSUE WITH QWEST AND IMPLIES THAT QWEST IS OUT OF STEP WITH OTHER ILECS. PLEASE COMMENT.

A. I cannot speak to what other ILECs may do, but I do know that other CLECs in the Qwest region have been able to work with Qwest line sharing bills. Apparently they have developed processes so that they can adequately track orders and validate billing using the information provided by Qwest. Ms. Albersheim's testimony will discuss this issue in further detail.

Q. MS. BALVIN ALSO STATES ON PAGE 11 OF HER TESTIMONY THAT USOCS ARE NOT ALWAYS PROVIDED ON BILLS. IS THE LACK OF USOCS A COMMON OCCURRENCE?

A. No. USOCs are always provided on Covad's bills in Arizona, making this a moot argument for the Arizona Commission. Although Qwest routinely and regularly provides USOCs on bills for all recurring charges, Qwest acknowledges that it is not currently providing USOCs for some non-recurring charges in its Western Region. This is the result of a needed system change in the Western CRIS billing system which will be corrected in a forthcoming release. Since Arizona is in Qwest's Central region, and not in the Western region, it is not affected by this issue.

Not withstanding the forthcoming change in the Western Region, and contrary to Ms. Balvin's assertions, this lack of USOCs in the Western Region does not complicate bill validation. First, Qwest provides a description of the charge on the bill even when the USOC is not provided. Thus, from the clear description

Qwest provides, Covad knows whether the non-recurring charge being billed is for a "ONE TIME CHARGE FOR INSTALLATION/CHANGE" or a "BASIC INSTALLATION ON ADDITIONAL LOOPS" or a "CHARGE FOR REPAIR VISIT WHEN NO TROUBLE IS FOUND IN TELCO EQUIPMENT" (all actual quotes from recent ASCII-formatted wholesale bills). This clear description facilitates bill validation.

Second, since the number of applicable non-recurring USOCs is relatively limited, it is not burdensome to validate the charged amounts to expectations in those limited instances where the USOCs are missing. For example, for Covad's two-wire unbundled loop today, there are only eight installation USOCs applicable. In addition, there is a single USOC for the Network Interface Device's installation, and a single USOC for an order charge. It is not onerous to account for ten installation USOCs—even manually. These ten USOCs would account for the vast majority of Covad's unbundled loop installation charges. Even including the very rarely-used USOCs for Design Layout Reports (three USOCs) and excess labor charges (ten USOCs), the task is still quite manageable. Outside of the installation process, Maintenance and Repair charges (the other category of non-recurring charges) involve a similarly small and manageable number of USOCs. Third, bill validation does not necessarily require USOC data at all. The entire purpose of bill validation is to determine whether or not charges match what is expected, and if not, to determine why not. So, to do thorough bill

validation, Covad must compare the amounts billed for any given service to the expectation. If those amounts match, as they should, no further investigation is required.

To conclude, this is not an issue that affects Arizona billing, should not meaningfully inhibit Covad's bill validation process, and will be enhanced in Qwest's western states in a forthcoming system release.

Q. ON PAGE 15-16 MS. BALVIN CITES THE USE OF A COMMON USOC FOR MULTIPLE RATE ZONES AS A FACTOR COMPLICATING BILL REVIEW. DO YOU AGREE?

A. No. The zone information is implicitly on the bill because the monthly rate being charged is directly related to the particular zone for a state. Although Ms. Balvin does not explain that Covad may use the USOC to confirm that the rate is correct, the presence of the common USOC and the specific rate on the bill allow for a comparison of the rate with the allowable zone rates for that USOC. This comparison is easy to mechanize. Further, Qwest's use of the same USOC for multiple rate zones means Covad has fewer USOCs to keep track of, thereby simplifying bill validation. As Ms. Balvin acknowledges, there are only three different zones to be concerned with in Arizona. If Covad truly has "state of the art" billing validation software as it has claimed in other proceedings, it should easily be able to mechanically validate the rates for the different rate zones. Ms.

1 Albersheim's testimony will discuss the technical aspects of the way in which
2 Qwest provides zone information and how that can be used by Covad for bill
3 validation.

4 **Q. PLEASE COMMENT ON MS. BALVIN'S STATEMENT ON PAGE 16**
5 **THAT ALL DISCONNECTS MUST BE RESEARCHED MANUALLY**
6 **AND INDIVIDUALLY TO MAKE SURE THAT THE DATE ON THE**
7 **DISCONNECT IS CORRECT.**

8 A. It may be that Covad chooses to validate disconnects manually. This process,
9 however, is easily mechanized. Since Qwest provides the disconnect date on all of
10 its electronic bills, Covad must simply build a mechanical routine to compare that
11 disconnect date to the disconnect date expected according to Covad's records.
12 That the CLEC industry by and large operates on the commercially standard thirty
13 day payment due date belies Covad's argument that this and other bill validation
14 steps cannot be reasonably accomplished within thirty days.

15 **Q. ON PAGE 13 OF HER TESTIMONY, MS. BALVIN DISCUSSES WHY**
16 **COVAD BELIEVES MORE TIME IS REQUIRED TO PAY BILLS**
17 **WHICH CONTAIN NEW SERVICES. PLEASE COMMENT.**

18 A. Interestingly, Covad did not raise payment for new services as a concern in the
19 Colorado or Washington proceedings, nor was it mentioned in Covad's Arizona
20 petition. The issue first arose in Minnesota at the suggestion of the Department of

1 Commerce, and I disagree with Covad's proposal for a number of reasons. First,
2 as I noted at the beginning of the testimony, treating new services in the manner
3 proposed by Covad would create an administrative and systems nightmare,
4 requiring a reworking of standardized billing and collections practices to allow for
5 exceptions based on whether services have been ordered previously and a
6 corresponding rewriting of systems logic to accommodate the changes.

7 Second, "New rate elements, new services, or new features not previously ordered
8 by CLEC" is an overly broad definition that exaggerates the degree to which
9 accommodations must be made when "new products" are ordered. The example
10 cited earlier perhaps best illustrates the nature of this concern. Under this overly
11 broad definition of new products, a CLEC which had been ordering 2 wire loaded
12 loops and at some point in the future ordered a 2 wire unloaded loop, would be
13 allowed extra time to pay its bills for the next 12 months, even though there is no
14 difference in the two services from a bill presentation and billing validation
15 perspective. The exception treatment afforded by this language makes the system
16 far too susceptible to gaming. One need only order an element that had not been
17 purchased previously to increase the time you have to pay your bills by 50% for
18 the next 12 months.

19 Third, Covad provides no justification for the 12 month period. Ms. Balvin
20 provides no examples of past "new services" which required more time for

validation and does not explain why it would take Covad a full year to begin validating the bills for these products in a timely manner.

Finally, Covad overstates the degree to which accommodations are required on its part when new services are ordered. These new services will be billed by the same billing systems that Covad has been working with since it began doing business with Qwest in 1998 and in most cases the new services will require little, if any, accommodation from a billing validation perspective. Qwest provides documentation of its billing processes and Qwest service delivery coordinators are available to help answer any questions CLECs may have. Covad is asking to be treated differently than the other CLECs who order new services, validate bills and make payment within the 30 day time period.

Q. DO YOU AGREE WITH MS. BALVIN'S ASSERTION AT PAGE 6 THAT QWEST HAS NO INCENTIVE TO FIX BILLING DEFICIENCIES GIVEN ITS PROPOSED TIME FRAMES?

A. No. First of all, Qwest does not agree that its bills are deficient. As a part of the 271 approval process, an extensive review of Qwest's wholesale billing processes was conducted and, based upon this review, the FCC, the Arizona Third Party Test administrator and the Arizona Commission concluded that Qwest's billing processes satisfied the checklist requirements. It should be noted, however, that Qwest has every incentive to provide accurate bills, by virtue of the fact that the

parties operate under the Qwest Performance Assurance Plan (QPAP) which provides for payments to Covad for inaccurate billing. Performance indicator BI-3A is calculated each month to determine billing accuracy.

Q. ARE THESE QPAP PAYMENTS FOR BILLING INACCURACY OVER AND ABOVE THE INTERCONNECTION AGREEMENT PROVISIONS FOR DISPUTED AMOUNTS?

A. Yes. For example, in cases of over billing, Covad will receive credit for the amount of the over billing, and any associated interest as well as the applicable payment under the QPAP. Given the dollar amounts at stake, Qwest clearly has every incentive to bill as accurately as possible.

Q. ON PAGE 21 OF HER DIRECT TESTIMONY MS. BALVIN ASSERTS THAT "QWEST APPARENTLY NOW IS ATTEMPTING TO MODIFY ITS PAP OBLIGATIONS." HOW DO YOU RESPOND?

A. Ms. Balvin is apparently referring to Qwest's plan to not renew the Long Term PID Administration (LPTA) process after its initial term ended. Contrary to Ms. Balvin's assertions, LPTA was never an obligation under the Performance Assurance Plan. The LPTA was a voluntarily agreed to approach by Qwest, CLECs, test vendors and State Commission Staffs during the 271 process to address performance measurements by which Qwest would demonstrate that it met its non-discriminatory obligations under the Telecommunications Act of

1996. Based upon Qwest's experience, Qwest believes that discussions on performance measurement issues will be more productive in a less formal business setting. Going forward, Qwest has established a PID modifications process whereby CLECs can identify and address performance-related issues. Contrary to Ms. Balvin's claims, this change does not modify Qwest's PAP obligations.

Q. AT PAGE 17 OF HER TESTIMONY MS. BALVIN ARGUES THAT QWEST WANTS MONTHLY PAYMENT ON OR BEFORE IT EVEN PROVIDES A FULL MONTH'S SERVICE. PLEASE COMMENT.

A. Ms. Balvin is mistaken. First, all non-recurring charges and usage charges are billed in arrears. Second, while it is true that recurring charges are billed in advance, all service will have been provided by the time the bill is due, 30 days after the invoice date. I would point out that the billing of recurring charges in advance is the standard in the industry and is in fact the practice followed by Covad in billing its own customers.

Q. MS. BALVIN USES THE WORDS "DESTROY", "DEVASTATING" AND "FATAL" WHEN REFERING TO ACTIONS QWEST MAY TAKE IN CASES OF NON-PAYMENT. PLEASE COMMENT.

A. Insisting that a customer pay for services provided and disconnecting service if the customer has not paid the undisputed portion within 3 months of the invoice

date is not the draconian remedy that Covad makes it out to be. Rather, it should be viewed as a prudent business practice, one agreed to by the CLECs, including Covad, during the 271 process and one followed by Covad itself. Indeed, as I pointed out in my direct testimony, Covad's own policy does not require it to wait for any period past the 30 day due date before it disconnects services to its customers.

Q. MS. BALVIN'S TESTIMONY SUGGESTS THAT QWEST CAN EXERCISE ITS DISCONTINUANCE AND DISCONNECTION REMEDIES FOR NON-PAYMENT OF ANY PORTION OF THE BILL. SPECIFICALLY, AT PAGE 5 OF HER TESTIMONY MS. BALVIN QUESTIONS "WHETHER IT IS APPROPRIATE FOR QWEST TO STOP RECEIVING NEW ORDERS 30 DAYS AFTER THE PAYMENT DUE DATE REGARDLESS OF DISPUTED RECORDS". PLEASE COMMENT.

A. Ms. Balvin's question and discussion of Qwest's discontinuance and disconnection remedies ignore the language of the agreement which states:

> 5.4.2 One Party may discontinue processing orders for the failure of the other Party to make full payment for the relevant services, ***less any disputed amount*** as provided for in Section 5.4.4 of this Agreement, for the relevant services provided under this Agreement within thirty (30) calendar Days following the payment due date. [Emphasis added.]

The language in the agreement clearly does not allow Qwest to discontinue taking orders or disconnect service for non-payment of disputed amounts. Therefore, the

only time Qwest can exercise its remedies is if Covad were to fail to pay the *undisputed* portion of its bills.

Q. DO YOU AGREE WITH MS. BALVIN THAT QWEST HAS LITTLE TO NO EXPOSURE BECAUSE THERE ARE STILL DEADLINES THAT COVAD MUST MEET IN ORDER TO CONTINUE RECEIVING SERVICES FROM QWEST?

A. No. Extending the deadlines clearly increase Qwest's exposure. The problem with extending the deadlines as Covad is proposing is that it allows a CLEC to continue to incur months of additional liabilities when, due to the lack of payment, there is already an indication that Qwest may have difficulties collecting the monies it is owed. Under Covad's proposal, a CLEC would be allowed to incur an additional two months of liabilities after it had missed making a payment before Qwest could discontinue taking orders, and a third month before Qwest could disconnect it.

Qwest's proposal provides a logical link between providing service and protecting against non-payment. Section 5.4.5 of the interconnection agreement, which deals with repeated delinquency, allows Qwest to secure a deposit approximating two months of billing. Then, in this disputed language, Qwest seeks to suspend orders once bills are thirty days past due. Since there is one month of service on the past due bills, and another month of service passes before Qwest begins to

suspend order activity, Qwest would begin suspension activity only after its protection, in the form of a two-month deposit, has been exhausted by two months of billing. Disconnection of service would not begin until Qwest was well beyond the financial protections afforded by the deposit. Clearly, Qwest is being reasonable in its timeframes. To extend them beyond what they are in the existing contract, and what is in Qwest's proposed language, would leave Qwest with unjustified additional financial exposure.

Q. BASED UPON RECENT EVENTS, ARE QWEST'S CONCERNS REGARDING THE EXTENDED TIME FRAMES PROPOSED BY COVAD FOR THESE DISPUTED ISSUES HYPOTHETICAL?

A. No. Over the past several years, Qwest has found itself in the position of being left with large receivables when CLECs exited the local exchange market and filed Chapter 7 bankruptcy. These recent experiences highlight the need for more, not less, stringent time frames for payment. The extended time frames proposed by Covad, especially considering the ability of other CLECs to opt-in to this agreement, will only unreasonably increase Qwest's financial exposure.

Q. CAN YOU PROVIDE A RECENT EXAMPLE WHERE QWEST WAS LEFT WITH A SUBSTANTIAL UNPAID BILL?

A. Yes, in Decision No. 66984, dated May 11, 2004, the Commission revoked the CC&N of the Phone Company Management Group ("PCMG") based on its

investigation and ultimate findings that the CLEC was not a viable company and was unable to provide telecommunications service to Arizona customers. By the time Qwest was permitted to cease providing wholesale services to PCMG, Qwest was left with nearly two million dollars in uncollectible debt.

Q. WHAT SUPPORT DOES COVAD PROVIDE FOR EXTENDING THE TIME FRAMES BEFORE QWEST CAN TAKE ACTION IN CASES OF NON-PAYMENT?

A. The sole support that Covad provides is to argue that the non-payment remedies would have a devastating impact on its business and therefore Qwest should be required to delay taking action in cases of non-payment. The CLEC community agreed during the 271 process that the non-payment remedies and time periods strike the proper balance between CLECs' and Qwest's interests. Qwest's proposed language carries forward that balance whereas Covad's proposed language, without justification, shifts enormous additional risk to Qwest of never being paid for the services it provides.

Q. ON PAGES 19-21 OF HER TESTIMONY MS. BALVIN REFERS TO AN ARIZONA DS3 UDIT BILLING ISSUE. PLEASE COMMENT.

A. In her testimony, Ms. Balvin discusses Covad's billing dispute of DS3 UDIT. The rates for DS3 UDIT were ordered by the Arizona Commission in Phase II of the Wholesale Cost Docket in Decision No. 64922, dated June 12, 2002.

Contrary to Ms. Balvin's testimony, Qwest, in the Cost Docket proceeding, put forth its cost model which included separate rates for entrance facilities and transport. The Commission rejected Qwest's cost model and adopted the HAI model presented by the CLECs actively involved in the Cost Docket proceedings. The HAI model adopted by the Arizona Commission combined the entrance facility and transport. Qwest implemented the ordered rate and rightfully billed the CLECs according to the ordered rate. This was not an error as Ms. Balvin states in her testimony and certainly does not support Covad's position this was a bill dispute. Had Covad chosen to participate in the Cost Docket, they would have known that the HAI model combined the entrance facility and transport rate and could have raised their concerns in the proper forum. To imply this was a billing dispute which supports their argument for extending the time to pay Qwest is totally unfounded. Qwest implemented and billed lawfully ordered rates.

Q. WAS COVAD ASSESSED LATE PAYMENT CHARGES ON THE BILLED AMOUNTS IT WITHELD RELATED TO THE COST DOCKET ORDER?

A. No. Qwest agreed that it would not hold CLECs in default for refusing to pay the ordered rate. Contrary to the suggestion in Ms. Balvin's testimony, there was no threat of Covad being disconnected or having other actions taken against it for its refusal to pay this charge.

Q. DID QWEST DEMAND A DEPOSIT FROM COVAD AS A RESULT OF THESE WITHELD PAYMENT AMOUNTS?

A. No.

Q. DID QWEST STOP TAKING COVAD ORDERS OR DISCONNECT COVAD SERVICE AS A RESULT OF THE WITHELD AMOUNTS?

A. No.

IV. SUMMARY/CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The disputed portions of section 5.4 of the interconnection agreement have to do with the obligations of the billed party to make payments in a timely manner and the actions the billing party may take to protect itself when payments are untimely. Qwest's proposed language and timeframes strike a balance between the needs of both parties, as reflected by the fact that these timeframes and language were agreed to by the CLECs (including Covad) during the 271 workshops. In its testimony on payment issues, Covad ignores the notion of balance, ignores the language in other, undisputed portions of the agreement that protects Covad's legitimate concerns and instead focuses only on purported disadvantages to Covad. Covad also raises billing concerns here that are more appropriately addressed through the Change Management Process, the

Performance Assurance Plan or the other resources Qwest has long made available to Covad through the designated Billing Service Delivery Coordinators and Service Managers. In the end, Covad offers no compelling reason why the payment due date that the two parties have been operating under since 1999, and other terms which were agreed to by all parties during the 271 workshops, should now be modified.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Exhibit WRE-Reb-1

1 BEFORE THE PUBLIC UTILITIES COMMISSION
2 OF THE STATE OF COLORADO
3 Docket No. 04B-160T - Volume 1
4 * * *
5 IN THE MATTER OF THE PETITION OF QWEST CORPORATION
6 FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH
7 COVAD COMMUNICATIONS COMPANY PURSUANT TO 47 USC
8 SS 252(b).
9 ---
10 Pursuant to notice to all parties of interest,
11 the above-entitled matter came on for hearing at
12 9:30 a.m., June 21, 2004, at 1580 Logan Street,
13 Office Level 2, Denver, Colorado, before
14 Adminstrative Law Judge Mana Jennings-Fader.
15 APPEARANCES
16 For Qwest Corporation: WINSLOW WAXTER, ESQ.
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17 Suite 200
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18 JOHN DEVANEY, ESQ.
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19 Denver, Colorado 80202
20 For Covad Communciations: ANDREW NEWELL, ESQ.
1515 Arapahoe Street
21 Suite Tower 1, Suite 1000
Denver, Colorado 80202
22 KAREN FRAME, ESQ.
7901 Lowry Boulevard
23 Denver, Colorado 80230
24
25

1 available to other, potentially, problematic carriers,
2 for purposes of opting in. Did I misunderstand?
3 A That is correct. That is a concern. And
4 the point there is that Covad's billing performance
5 isn't the only relevant measure we would look at when
6 deciding what we should be using for payment terms.
7 Q So, is it Qwest's -- is it your
8 testimony, then, that if, in looking at interconnection
9 agreements for the purposes of arbitrating provisions
10 of interconnection agreements, the Commission should
11 look at the impact of -- or potential impact of opting
12 in to those provisions, the impact that that might have
13 on Qwest?
14 A I believe that's correct. I can tell
15 you, when Qwest negotiates an interconnection
16 agreement, we are very aware of the potential for folks
17 opting in, and we want to make sure that's something
18 that we could live with.
19 Q And, so, in a similar vein, the
20 Commission should also look at that in determining the
21 arbitration or making the arbitration decisions?
22 A I believe so, yes.
23 Q Does Qwest's concern about the billing
24 issues, 1 through 4 -- I'm sorry. Would Qwest's
25 concerns about Billing Issues 1 through 4 be reduced,

1 in any way, if the provisions relating to bill payment,
2 timing of discontinuing ordering -- or processing of
3 orders, timing of disconnecting service, and repeatedly
4 delinquent were specific to, or added as conditions to
5 specific types of services, such as providing, just as
6 an example, providing line-sharing, even though I know
7 that's going by the wayside; but, in other words, if it
8 were no longer provisioned in the general provision
9 section, which is where it's found now, but rather were
10 put into and made condition-specific, with specific
11 conditions as to specific products or types of
12 products.
13 A I think that would be very problematic,
14 given the billing systems we have. And, as I mentioned
15 earlier, the CRIS system bills for several of the
16 products we're talking about here. And when you start
17 differentiating one product within the system from the
18 other, and say, on this one, you allow 45 days for them
19 to pay, but on the others, on this same bill, you only
20 allow 30 days, I believe, you know, you create kind of
21 a nightmare, from a processing problem point of view.
22 A.L.J. JENNINGS-FADER: Thank you,
23 Mr. Easton. I have no additional questions. Covad, do
24 you have any questions, based on what I asked
25 Mr. Easton?

1 Commission to understand the answer?
2 A Well, I would like to provide an example,
3 because I basically use generalities. Simply, I agree.
4 It is very important for Qwest to receive some payment.
5 It is equally important that Covad be given the
6 protection it seeks, by the extended time frames,
7 because the remedies available to Qwest go far beyond,
8 in terms of harm, a failure of payment.
9 And I am not attempting to minimize a
10 failure of payment. Don't get me wrong, but Qwest has
11 the ability to destroy our business, in a particular
12 state, by refusing to process orders, by disconnecting
13 circuits. So that's, when I say, you know, and there
14 are provisions in the interconnection agreement to
15 address nonpayment. There is an, essentially, nothing
16 we can do, once the horse has left the barn, and we
17 can't process the orders, or get orders processed, and
18 service disconnected, there's nothing that gets us back
19 to that, given the prohibitions on recovery, of
20 remedies, and you just can't unring a bell.
21 Q And looking at that, and the
22 reasonableness of the provisions from Qwest's
23 perspective, and the Commission's undertaking that
24 review, the opt-in provisions appear to be problematic,
25 at least based on Qwest's testimony. To the extent

1 that Covad can receive or could -- might receive what
2 it wanted by limiting the various provisions to -- at
3 issue, to specific products, as opposed to in the
4 general provisions section, is that problematic to
5 Covad, in terms of practical difficulties, in the same
6 way that Mr. Easton explained practical difficulties,
7 addressing the reasonableness of such a proposal from
8 Qwest's perspective?
9 A Right. I would say, yes. I think what
10 Mr. Easton pointed out correctly, our business and
11 certainly Qwest's operate by process, and with specific
12 time frames to make sure we comply. It is
13 extraordinarily difficult, as a business, to create
14 exceptions to the rule, rather than having a
15 standardized relationship across the board.
16 A.L.J. JENNINGS-FADER: Staff, any
17 questions based on what I have asked Ms. Doberneck?
18 MR. NOCERA: No, Your Honor.
19 A.L.J. JENNINGS-FADER: Qwest?
20 MS. WAXTER: Yes, Your Honor.
21 CROSS EXAMINATION
22 BY MS. WAXTER:
23 Q Good afternoon.
24 A It is that.
25 Q You had some discussions earlier with the

Exhibit WRE-Reb-2

ACCESS SERVICE

2. General Regulations

2.4 Payment Arrangements and Credit Allowances

2.4.1 Payment of Rates, Charges and Deposits

(B) (2) (Cont'd)

For bill days in January 1984, the bill will cover nonusage sensitive service charges for the ensuing billing period, the nonusage sensitive service charges for the period from January 1, 1984 thru the bill day, usage charges for the period from January 1, 1984 thru the bill day and any known adjustments for the calendar month of January 1984. Such bills are due as set forth in (3) following. If payment is not received on the payment date as set forth in (3) following in immediately available funds, a late payment penalty will apply as set forth in (3) following.

(3) All bills dated as set forth in (2) preceding for service, other than End User Service and Presubscription Service provided to the IC by the Telephone Company, are due 31 days (payment date) after the bill day or by the next bill date (i.e., same date in the following month as the bill date) whichever is the shortest interval, except as provided herein, and are payable in immediately available funds. If such payment date would cause payment to be due on a Saturday, Sunday or Holiday (i.e., New Year's Day, Indpendence Day, Labor Day, Thanksgiving Day, Christmas Day, the second Tuesday in November and a day when Washington's Birthday or Memorial Day or Columbus Day is legally observed) payment for such bills will be due from the IC as follows:

(a) If such payment date falls on a Sunday or on a Holiday which is observed on a Monday, the payment date shall be the first non-Holiday day following such Sunday or Holiday. If such payment date falls on a Saturday or on a Holiday which is observed on Tuesday, Wednesday, Thursday or Friday, the payment date shall be the last non-Holiday day preceding such Saturday or Holiday.

(b) Further, if any portion of the payment is received by the Telephone Company after the payment date as set forth in (a) preceding, or if any portion of the payment is received by the Telephone Company in funds which are not immediately available

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION.	)	**DOCKET NO. T-03632A-04-0425** **T-01051B-04-0425**

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-03632A-04-0425.

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 17th day of January, 2005.

LORI L. WHITE
COMMISSION EXPIRES
NOTARY
PUBLIC
STATE OF WASHINGTON

Lori L. White
Notary Public

My Commission Expires: 7/10/07

EXHIBIT
Qwest 8
admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

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

IN THE MATTER OF THE PETITION	)	
OF DIECA COMMUNICATIONS, INC.	)	
dba COVAD COMMUNICATIONS	)	Docket No. T-03632A-04-0425
COMPANY FOR ARBITRATION OF AN	)	T-01051B-04-0452
INTERCONNECTION AGREEMENT	)	
WITH QWEST CORPORATION	)	

REBUTTAL TESTIMONY OF RENÉE ALBERSHEIM

ON BEHALF OF

QWEST CORPORATION

JANUARY 18, 2004

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I. IDENTIFICATION OF WITNESS

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

A. My name is Renée Albersheim. I am employed by Qwest Corporation ("Qwest"), as a Staff Advocate. My business address is 1801 California Street, 24th floor, Denver, CO, 80202.

Q. PLEASE DESCRIBE YOUR EDUCATION, BACKGROUND AND EMPLOYMENT EXPERIENCE.

A. I have been working in the Global Wholesale Markets organization since December, 2003. Before December I worked in the Information Technologies Wholesale Systems organization since joining Qwest in October 1999. As a Staff Advocate, I provide support for Qwest's response to regulatory issues associated with the 1996 Act, FCC orders, state commission decisions, and other legal and regulatory matters.

Prior to becoming a Qwest employee, I worked for 15 years as a consultant on many systems development projects and in a variety of roles including the following: programmer and systems developer, systems architect, project manager, information center manager and software training consultant. I worked on projects in a number of industries including: oil and gas; electric, water and telephone utilities; insurance; fast food; computer hardware; and the military. I designed and developed a number of applications including electronic interfaces like those described later in this testimony. During that time, I worked on several of Qwest's Operations Support Systems ("OSS") as

a consultant on Human Resources and Interconnect Access Billing Systems ("IABS") projects.

In addition to working full-time at Qwest, I also earned a Juris Doctor degree from the University Of Denver College Of Law and passed the Colorado Bar Examination in October of 2001. Prior to attending law school, I received a Master of Business Administration in Management Information Systems from the University of Colorado College of Business and Administration in 1985 and I received a Bachelor of Arts degree from the University of Colorado in 1983.

II. PURPOSE OF REBUTTAL TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my testimony is to discuss Issue No. 8-1: Due Dates for Amounts Payable, where I will respond to the claims of Covad witness Elizabeth Balvin regarding the use of a circuit ID to validate line sharing bills, Covad's testimony regarding the Change Management Process ("CMP"), and Covad's concerns regarding validation of deaveraged rate zones.

III. ISSUE NO. 8-1: DUE DATES FOR AMOUNTS PAYABLE

COVAD'S CIRCUIT ID ISSUE

Q. COVAD CLAIMS THAT IT NEEDS MORE TIME TO PAY ITS BILLS BECAUSE OF DIFFICULTIES IT EXPERIENCES TRYING TO VALIDATE QWEST'S BILLS. PLEASE COMMENT GENERALLY.

A. The issue revolves around the language in an interconnection agreement that determines how much time Covad has to pay its bills to Qwest. Keeping that in mind, Covad has raised a number of issues, not relevant to the language in dispute in the interconnection agreement, to which Qwest must respond. In the testimony that follows I will discuss the errors in the technical claims made by Covad with regard to Qwest's bills. Qwest witness William Easton will cover all other aspects of this topic. I have evaluated the technical claims made by Covad witness Elizabeth Balvin, and it is my conclusion that Covad has the capability itself to resolve any issues it experiences with Qwest bills. Moreover, as I will discuss in detail, it would cost a great deal for Qwest to make changes to its systems just to accommodate Covad. It is my conclusion that Covad's technical claims have no merit and do not warrant an increase in time for Covad to pay its bills to Qwest.

Q. ON PAGE 8 OF HER TESTIMONY, MS. BALVIN CLAIMS THAT QWEST IS THE ONLY ILEC THAT DOES NOT PROVIDE CIRCUIT ID INFORMATION ON ITS LINE SHARING BILLS. IS THIS RELEVANT?

A. No. All of the ILECs have operational differences from each other. They even have operational differences within their own territories. This arises from the fact that these

1 companies were formed from the combination of the original Bell Operating Companies
2 ("BOCs") that were created following the divestiture from AT&T. Qwest's current
3 operating territory, and therefore much of its Operational Support System ("OSS") legacy
4 architecture, is the product of the merger of three predecessor Bell Operating Companies:
5 Pacific Northwest Bell (covering Washington and Oregon); Mountain Bell (covering
6 Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming); and
7 Northwestern Bell (covering Iowa, Minnesota, Nebraska, North Dakota, and South
8 Dakota). Pacific Northwest Bell's operating area is now referred to as Qwest's Western
9 Region; Mountain Bell's operating area is now referred to as Qwest's Central Region;
10 and Northwestern Bell's operating area is now referred to as Qwest's Eastern Region. A
1 number of Qwest's back office systems still exist in three versions, such as the Customer
12 Record Information System ("CRIS") and the Service Order Processors ("SOPS").
13 Qwest has created a single set of electronic interfaces for the CLECs to use to access data
14 in these back office systems.[1] The fact that there are differences within and among the
15 ILECs is nothing new.[2]

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[1] A quick review of Verizon's wholesale website at http://www22.verizon.com/wholesale/local/order/0,19410,,00.html demonstrates that its CLEC facing processes are actually physically divided between western and eastern regions: Verizon East - CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT, WV; Verizon West - AZ, CA, FL, HI, ID, IL, IN, MI, NC, NV, OH, OR, SC, TX, WA, WI. Qwest has one set of CLEC facing processes that apply to all 14 in-region states, even though Qwest's back office systems are divided by its three source regions.

[2] In fact, during the 271 proceedings, during which claims were raised that Qwest systems included requirements not found in the systems of the other ILECs, the FCC stated "Our requirement is that the BOC provide nondiscriminatory access to unbundled network elements at rates, terms, and conditions that are just, reasonable, and nondiscriminatory, **which is not necessarily identical** in every BOC region." *In the Matter of Application by Qwest Communications International, Inc. for Authorization To Provide In-Region, InterLATA Services in the States of Colorado, Idaho, Iowa, Montana, Nebraska, North Dakota, Utah, Washington and Wyoming*, WC Docket No. 02 – 314, FCC 02-332, at 62, ("FCC Nine State Order") (Emphasis added).

Q. COULD ANOTHER REASON FOR DIFFERENCES BETWEEN THE ILECS BE THAT QWEST WAS THE FIRST ILEC TO PROVIDE THE LINE SHARING PRODUCT?

A. Yes. On October 8, 1999, the Minnesota Commission issued an order directing Qwest (then U S WEST) and CLECs interested in line sharing to conduct technical trials to determine the feasibility of line sharing in Minnesota.[3] Qwest and the participating CLECs, which included Covad, presented a stipulation resolving issues regarding the provisioning of line sharing.[4] This stipulation resulted in Qwest becoming the first ILEC to offer line sharing in the nation.[5] One of the primary decisions made by the joint team was to use what was then called the POTS provisioning system flow (now known as the non-design provisioning system flow) as opposed to the design provisioning system flow to provision the line sharing product even though the non-design provisioning system flow did not contain the circuit ID. Apparently, the CLEC members of the joint team believed that they would be able to implement service for their customers more quickly if

[3] See *Before the Minnesota Public Utilities Commission, In the Matter of a Commission Initiated Investigation Into the Practices of Incumbent Local Exchange Companies Regarding Shared Line Access, Docket No. P-999/CI-99-678, Order Requiring Technical Trials, Good Faith Resolution of Operational Issues, and a Resulting Report,* issued October 8, 1999. The Joint Team's primary report, sub-reports and associated OSS attachments are included with this testimony as exhibit RA-Reb-01.

[4] See *Before the Minnesota Public Utilities Commission, In the Matter of a Commission Initiated Investigation Into the Practices of Incumbent Local Exchange Companies Regarding Shared Line Access, Docket No. P-999/CI-99-678, Joint Report to the Commission, filed November 22, 1999 ("*Joint Report*").* The Joint Team's primary report, sub-reports and associated OSS attachments are included with this testimony as exhibit RA-Reb-01.

The commission ordered the adoption of the stipulation of the parties. See *Before the Minnesota Public Utilities Commission, In the Matter of a Commission Initiated Investigation Into the Practices of Incumbent Local Exchange Companies Regarding Shared Line Access, Docket No. P-999/CI-99-678,Order Adopting Terms and Conditions for Provisioning of Line Sharing in Minnesota and Initiating a Cost Proceeding, Issued December 3rd, 1999.*

[5] See *Third Report and Order in CC Doc. No. 98-147 and Fourth Report and Order in CC Doc. No. 96-98,* 14 FCC Rcd 20912 (1999) ("Line Sharing Order"), Dec. 9, 1999.

they were able to use the non-design provisioning system flow instead of the design provisioning system flow, because they believed that the provisioning intervals for line sharing using the non-design flow would become shorter.[6]

Importantly, the members of the Joint Team, which included Covad, recognized that since Qwest's was the first implementation of line sharing, the end result might not be in line with any industry standard developed at a later time.[7]

Thus, Covad's complaint about the missing circuit ID information on its line sharing bills, and the claim that other ILECs provide this information, is nothing more than a red herring since Covad itself was one of the CLECs who helped make the decision to have line sharing provisioned by Qwest out of the non-design provisioning system flow.

Q. MS. BALVIN STATES ON PAGE 8 OF HER DIRECT TESTIMONY THAT THE INDUSTRY STANDARD FOR BILLING OF LINE SHARING IS TO USE A CIRCUIT ID. IS THAT RELEVANT?

A. No. First, the industry provides guidelines for ordering and billing, but industry guidelines are not hard and fast rules. All of the ILECs follow these guidelines to the extent that their various systems permit, but none of the ILECs adhere to these guidelines

[6] The decision regarding use of the POTS provisioning flow is reflected in items 8 and 9 of the Decision Point List, attached as an exhibit to the Joint Report (See Exhibit RA-Reb-01, pages 66-76), and on pages 4 and 7 of the OSS Report (See Exhibit RA-Reb-01, pages 12-20), both of which were filed by the Joint Team (which included Covad) with the Minnesota Commission on November 22, 1999.

[7] This is noted in the minutes of the OSS sub-group of the Joint Team, also filed as an exhibit to the Joint Team report. Action Items were identified in which members of the Joint Team were to present the line sharing design results to the Ordering and Billing Forum ("OBF") as a proposal for line sharing standards. (See Exhibit RA-Reb-01, pages 35-62).

100%, and such adherence is not expected or required. All of the ILECs, including Qwest, provide documentation to CLECs that indicate where their systems differ from industry guidelines.

Second, as I noted above, the Joint Team that developed line sharing at Qwest, and of which Covad was an active member, understood that the system design developed at Qwest was the first, and that it might not match the guidelines that were to be developed later by the industry. In fact the Local Service Ordering Guidelines ("LSOG") for line sharing were not published until November of 2001, nearly two years after Qwest implemented line sharing.

Q. WHAT IS THE PURPOSE OF THE CIRCUIT ID FIELD?

A. The circuit ID field is used for the identification of unbundled loops, and was originally created for use with designed services such as private lines and trunks. The use of the circuit ID was recommended by the Ordering and Billing Forum ("OBF") for the identification of unbundled loops.[8] With the exception of designed services like unbundled loops and private lines which are identified by circuit IDs, Qwest identifies all customer lines by their telephone number ("TN"), and Qwest's back office systems were designed on that basis. In fact, Qwest still uses TNs to identify customers in its back office systems for non-designed services. The inventory of unbundled loops, private

[8] The OBF is a committee of The Alliance for Telecommunications Industry Solutions ("ATIS"). ATIS creates guidelines to assist in the standardization of communications and business operations between carriers. These guidelines serve as a common starting point for carriers, but 100% compliance is not expected. While all carriers have differences from these guidelines, these guidelines create a standard method for communicating those differences.

lines and similar designed services is maintained in the Trunk Inventory Record Keeping System ("TIRKS"). A comparison of the design and non-design provisioning systems flow attached as Exhibit RA-Reb-02 demonstrates that the TIRKS system, in which the circuit ID field resides, is only used for the provisioning of products through the design systems flow. Thus, because line sharing was provisioned out of the non-design provisioning systems flow the circuit ID information which Covad now seeks is not available for inclusion on its line sharing bills.

Q. WHAT IS THE SIGNIFICANCE OF THE JOINT TEAM'S DECISION TO USE THE NON-DESIGN PROVISIONING SYSTEMS FLOW FOR LINE SHARING AT QWEST?

A. The choice of the non-design provisioning systems flow dictated that the circuit ID field would not be available for use in pre-ordering, ordering, provisioning, billing or maintenance and repair of line sharing at Qwest, because the circuit ID is not part of the non-design provisioning systems flow. Keep in mind that when the Joint Team created the parameters for line sharing at Qwest, there was no industry standard for the identification of shared loops. Qwest was the first ILEC to implement a line sharing product. The Joint Team, in choosing the non-design provisioning systems flow determined that the circuit ID field would not be available for use in pre-ordering, ordering, provisioning, billing or maintenance and repair of line sharing at Qwest.

Q. YOU STATED ABOVE THAT SHARED LOOPS ARE IDENTIFIED USING A TN INSTEAD OF A CIRCUIT ID. IS THE TN USED TO IDENTIFY A SHARED LOOP THE SAME AS THE VOICE TN ON WHICH THE DATA SERVICE RESIDES?

A. No. Qwest must be able to distinguish a shared loop, which is a data service sold to a CLEC, from the Qwest retail voice service that the data service is attached to. So the shared loop is assigned its own unique TN. This identifying TN is referred to by Qwest as the sub-account number. Every shared loop purchased by a CLEC has this unique sub-account number, and this sub-account number is provided to the CLEC at the time the service is ordered. Every CLEC also has at least one account number. This is known as the Billing Account Number ("BAN"). So Qwest bills a CLEC on the basis of its BANs and the line items for the products and services ordered under these BANs are identified by their sub-account numbers.

Q. MS. BALVIN NOTES ON PAGE 9 OF HER DIRECT TESTIMONY THAT QWEST USES THE CIRCUIT ID FOR ALL OTHER CIRCUIT ID BASED PRODUCTS, BUT QWEST NEGLECTS TO DO SO FOR LINE SHARING. IS THIS A FAIR ASSESMENT OF QWEST'S USE OF THE CIRCUIT ID?

A. No. This is not a matter of neglect. As I noted above, line sharing is provisioned using the non-design (or POTS) systems flow. The non-design flow uses a TN to identify shared loops. The circuit ID is only available via the design provisioning systems flow. Therefore the circuit ID is not available via Qwest's back office systems for line sharing. This means, then, that the circuit ID is not available to line sharing for pre-ordering,

ordering, provisioning, maintenance and repair, and, most pertinent to Ms. Balvin's argument, the circuit ID is not available for line sharing billing. This information was provided to Covad during the development of the line sharing process defined by the Joint Team, of which Covad was a member.[9]

Q. IS MS. BALVIN'S DISCUSSION ON PAGES 8-9 OF HER DIRECT TESTIMONY, CONCERNING THE USE OF THE CIRCUIT ID ON THE FOC ACCURATE?

A. Yes, but her discussion is not complete, and she leaves out some important facts. An FOC ("Firm Order Confirmation") is not a bill but rather a message transmitted to a CLEC following the submission of a Local Service Request ("LSR"). After the necessary service orders have been created for a CLEC LSR in Qwest's back office systems, an FOC (indicating that the LSR has been received, service orders have been generated, and a due date has been assigned) is returned to the CLEC. The use of the circuit ID on a shared loop FOC is an informational feature added to the FOC for the benefit of CLECs. FOCs are returned to CLECs in response to LSRs for all products ordered via IMA, including unbundled loops and shared loops. Qwest has made the FOC uniform in appearance no matter what product is ordered. The field in the Circuit Detail Section of the FOC that Ms. Balvin refers to in her testimony is part of that uniform

[9] See Exhibit RA-Reb-03, minutes of an implementation meeting at which Covad was present, dated 1-21-00, item 7 on page 9,

12/17/99

CRIS will establish a separate CLEC summary bill for Line Sharing lines. The format will look the same as current bills for UBL. The CLEC will be provided a Miscellaneous account # for each line on the FOC. CLEC must keep track of Misc# to compare on bill.

appearance. ECCKT is another name for the circuit ID. The ECCKT field was created in order to display the circuit ID of an unbundled loop. When the shared loop product was developed, Qwest created a form of pseudo-circuit ID to display in the FOC for a shared loop. On an FOC for shared loop, this value does not contain a true circuit ID. Instead it is a combination of a state code, a service code, and the voice service TN. When used for shared loops, the pseudo-circuit ID value is not passed on to Qwest's back office systems for ordering, provisioning, maintenance and repair, and billing, therefore, this pseudo-circuit ID is not available for placement on Qwest's bills.[10]

Q. WHAT IS THE SIGNIFICANCE OF AN FOC FOR PURPOSES OF BILLING?

A. The FOC gives the CLEC everything necessary not only to track the product ordered, but also to validate subsequent bills from Qwest for that product. The FOC contains several sections of data:

- Administration Section
- Order Information Section (multiple)
- Circuit Information Section

Included in the Administration Section, is the Purchase Order Number ("PON"), which is a CLEC generated value that identifies an order in the CLECs own systems. The PON is provided on the FOC, and on the first bill for service, which includes non-recurring

[10] It is difficult to follow this discussion without visuals, so I created confidential exhibit RA-REB-04 using an FOC transmitted following a Covad Line Sharing Order to use as a visual reference to this discussion. This FOC we referenced by Covad in testimony submitted in other states on this issue.

charges associated with the installation of that service. This section also contains the end user TN, labeled AN ("account number") on the form. Finally the administrative section includes the summary bill account to which this service will be billed.

For a shared loop there are two order information sections. The first contains the information necessary to add line sharing to the end user's account. The end-user's complete account number is displayed here.[11] The second order information section contains the information necessary to establish billing for this shared loop. This section includes the new sub-account number for the shared loop, which is the number that appears on subsequent bills for shared loop service.[12]

Q. IN HER DISCUSSION OF COVAD'S NEED FOR A CIRCUIT ID, MS. BALVIN QUESTIONS THE UTILITY OF WHAT SHE CALLS THE BTN. BASED ON YOUR UNDERSTANDING OF MS. BALVIN'S TESTIMONY, DOES QWEST PROVIDE THE INFORMATION THAT COVAD NEEDS?

A. Yes. Ms. Balvin states on page 10 of her direct that what Covad gets from Qwest is the customer's BTN, and that is not the number associated with the circuit. Her statement is not correct. The field she calls the BTN is actually the sub-account that I described above. The sub-account is used throughout Qwest's systems to identify the line shared

[11] An end-user account number is the combination of the ten-digit TN plus a three-digit customer code.

[12] Confidential Exhibit RA-Reb-04 contains an example of a complete FOC for a Covad Line Sharing Order, submitted via LSR 10803937. The sub-account number is circled. Confidential Exhibit RA-Reb-05 is an excerpt of a bill to Covad with the line items for this same sub-account circled. As is apparent from a review of these two confidential exhibits, the sub-account provided by Qwest on the FOC is also the displayed in column #1 on the monthly recurring bills provided by Qwest to Covad. This billing design was established as a result of the Joint Team's determination that Line Sharing would be pre-ordered, ordered, maintained, repaired, and billed as a non-design product.

1 loop, and as I discussed above, this number is provided to Covad in the FOC. It appears
2 from Ms. Balvin's testimony that what she may prefer is the end user telephone number
3 assigned to the Qwest retail voice service that Covad's shared loop is being linked to.[13]
4 As I discussed above, the end user telephone number is contained in multiple sections of
5 the FOC that is transmitted to Covad following submission of Covad's LSR for line
6 sharing. It is via the FOC that Covad may link the end user TN to the sub-account that is
7 used to bill Covad for the shared loop. So what Ms. Balvin refers to as the BTN is
8 actually the sub-account that Qwest has assigned to the line sharing service and to which
9 Qwest bills Covad for that service.

10 There is also no basis for Ms. Balvin's concern regarding whether or not the sub-account
11 represents the "actual circuit provisioned." First, that is a misleading statement, because
12 line sharing is not a provisioned circuit in the same way that an unbundled loop is.
13 Rather, line sharing is a feature, with some central office provisioning, that is added to an
14 existing circuit. In any case, the sub-account number that Qwest assigns to a shared loop
15 is validated, stored in Qwest's back office systems, and used by Qwest to bill for the
16 service. It is most certainly an accurate representative value for the shared loop.

[13] I cannot be certain of Covad's preference, because on page 9 Ms. Balvin states that Covad can use what she calls the "non-standard TN circuit Id," but on page 10 she says what she then calls the BTN "may or may not be the actual circuit id provisioned."

Q. SO WHY CAN'T QWEST BILL COVAD FOR LINE SHARING USING THE END-USER TN INSTEAD OF THE SUB-ACCOUNT NUMBER?

A. The end-user TN is assigned to the Qwest retail voice service. Qwest does not bill the end-user for line sharing. Qwest bills Covad. In order to properly bill for line sharing, it was necessary for Qwest to create a unique number (the sub-account number) that could then be billed to Covad's BAN instead of the end-user's TN.

Q. ARE OTHER SHARED PRODUCTS IMPACTED BY THE USE OF THE NON-DESIGN SYSTEMS FLOW FOR PRE-ORDERING, ORDERING, PROVISIONING, BILLING AND MAINTENANCE AND REPAIR?

A. Line splitting also uses the non-design systems flow. This is because it combines data service with UNE-P, and UNE-P is provisioned using the non-design systems flow.

Q. IS LOOP SPLITTING A NON-DESIGN PRODUCT?

A. No. Loop splitting combines data service with an unbundled loop. Because unbundled loops use the design systems flow, loop splitting does as well. As a result, loop splitting bills contain a true circuit ID, as this data is available on the unbundled loop to which the data service is attached.

Q. MS. BALVIN CLAIMS ON PAGE 10 OF HER DIRECT TESTIMONY THAT "COVAD IS SUBJECTED TO MANUALLY INTENSIVE REVIEW PROCEDURES TO SIMPLY VALIDATE THE INFORMATION PROVIDED FOR BY QWEST." IS THIS COVAD'S ONLY OPTION?

A. No. FOCs, Customer Service Records ("CSRs") and Covad's bills are all available electronically. There is no reason that Covad should be forced to manually validate its bills when all the data Covad requires for validation is available in electronic form.

Q. ARE YOU SUGGESTING THAT COVAD COULD ELECTRONICALLY VALIDATE ITS BILLS WITH THE INFORMATION ALREADY PROVIDED ON THE BILLS COVAD RECEIVES FROM QWEST?

A. Yes. There are a number of ways that Covad could use the information it already receives. As a former computer programmer, I can think of several ways that Covad could use the information that it already receives in order to validate its bills electronically. A primary purpose of the FOC is to give CLECs all the information needed to validate bills. Ms. Balvin indicates that the circuit ID that she sees on the FOC is important to bill validation since it "accurately reflects the line in question." In other words, it is a unique identifier. The sub-account number provided by Qwest is also a unique identifier, and it is the unique identifier that Qwest uses for all subsequent

activities related to each shared loop account.[14] Covad can include a function in its ordering systems to electronically retrieve the sub-account number provided by Qwest on the FOC and relate that number to the end-user TN also available on the FOC, and presumably available in COVAD's own ordering systems. Covad could add the sub-account field to its customer record, or store it separately in a table that could then be used as a part of the bill validation process. Covad could also relate that sub-account number to its PON, which Covad provides when it requests the service. Again, that PON is provided to Covad along with the sub-account number on both the FOC and the first bill. There are a variety of programming solutions that could easily be used to allow for electronic bill validation using the sub-account number provided by Qwest. In fact, Qwest believes other CLECs have created such processes to allow them to validate their bills electronically. Remember that the decision to use the non-design provisioning systems flow for line sharing, with its lack of circuit ID, was jointly made with the CLECs. It is surprising that Covad did not program its systems to do these sorts of electronic bill validation processes years ago, as it was the first CLEC to order line sharing from Qwest, and Covad played such an integral role in the implementation of line sharing at Qwest.

[14] Information regarding the use of the sub-account is well documented on Qwest's Customer Record Information System ("CRIS") Billing PCAT located on the wholesale website at http://www.qwest.com/wholesale/clecs/cris.html . This documentation notes that in the central region the CLEC is required to convert the first digit of the NPA portion of the sub-account from a character to a number. A simple table found on this web page illustrates how this conversion is accomplished. A copy of this web page is attached as Exhibit RA-Reb-06.

Q. DOES MS. BALVIN'S CLAIM THAT COVAD "WOULD HAVE TO BUILD A UNIQUE SYSTEM TO VALIDATE QWEST'S BILLS" MAKE SENSE TO YOU AS A PROGRAMMER?

A. No, it does not. Ms. Balvin has indicated that Covad has a billing system that currently makes use of the FOC provided by Qwest to extract information required for validation of billing. It should be possible for Covad to make changes to its existing system to use a different part of the same FOC for Qwest's bills. It should not be necessary to build a separate unique system to accommodate Qwest's bills.

Q. MS. BALVIN CLAIMS ON PAGE 11 OF HER DIRECT TESTIMONY THAT COVAD'S EFFORTS TO VALIDATE ITS BILLS ARE COMPLICATED BY THE FACT THAT QWEST DOES NOT HOUSE DOCUMENTED BUSINESS RULES EXPLAINING THE BILLING PROCESS. IS HER CLAIM ACCURATE?

A. No, not at all. Ms. Balvin's statement does not make sense. How could any CLEC validate any bills if Qwest did not provide documentation of its business rules? Qwest would certainly not have passed the third party test of its billing systems, nor would Qwest have satisfied the requirements of the state and federal 271 reviews of its billing operations without sufficient and accessible documentation of Qwest's billing business rules. For example, Exhibit RA-Reb-06 is the documentation for the CRIS billing system, which describes the use of the sub-account number in significant detail. This exhibit was extracted from the public Qwest wholesale website on which most Qwest documentation resides. I don't know what basis Ms. Balvin has for making a statement that Qwest does not house its billing business rules.

Q. MS. BALVIN SUGGESTS THAT QWEST SHOULD BE REQUIRED TO MAKE SYSTEMS CHANGES TO CONFORM TO INDUSTRY GUIDELINES, IN OTHER WORDS, COVAD SHOULD NOT HAVE TO MAKE SYSTEM CHANGES. IS THAT A VALID EXPECTATION?

A. No. First, let me restate that Qwest was the first ILEC to establish line sharing, and Covad was a key participant in the design of the process that Qwest implemented in 1999. Qwest has been providing line sharing bills without the circuit ID for quite some time now. This begs the question as to why it has taken so long for Covad to determine that it is not capable of electronically validating the line sharing bills it receives from Qwest.

Second, Ms. Balvin's discussion, specifically her statement that Covad would have to build a separate system for Qwest bills, implies that the changes Covad would have to make to use the data already provided by Qwest would somehow be more difficult for Covad than for Qwest. I do not agree. Based on my experience as a programmer, and my general understanding of the business activities of our companies, I believe that it would be simpler, and likely less costly for Covad to make adjustments to its own billing systems, which are likely much newer and less complex, than it would be for Qwest to change its billing systems. That is not to say that Qwest's billing software is inefficient or ineffective. Quite the contrary. Qwest's billing software handles enormous volumes of data, producing bills for a wide variety of retail and wholesale products to a wide variety of retail and wholesale customers. Therein is the issue. Qwest's back office billing systems are incredibly complex. They receive data from a variety of systems, and

transmit data to a variety of systems. They produce bills not just for CLECs but for all of Qwest's customers, including end-user customers, and other wholesale customers. Any programming change made to a Qwest back office system must be evaluated for its potential to impact more than just one kind of bill, and must be thoroughly tested to ensure that no unintended impacts result from the change.

Third, and most critical, a change to the format of the line sharing bill is likely to impact other CLECs. If Qwest adds information in the column of the bill where Covad expects to find a Circuit ID, that new data will be transmitted to <u>all</u> CLECs. It is very possible other CLECs will have to make changes to their billing validation programs to account for the new data that would then be encountered on their bills.

Finally, it would not be realistic to suggest that Qwest could make such a software change just for Covad's bills. The cost to Qwest to program and administer unique bills for every CLEC would be astronomical. Qwest cannot be expected to create separate methods and operating procedures for every CLEC that it does business with.

THE CHANGE MANAGEMENT PROCESS

Q. MS. BALVIN CLAIMS THAT COVAD SHOULD BE GIVEN MORE TIME TO PAY ITS BILLS IN PART BECAUSE OF DIFFICULTIES COVAD HAS EXPERIENCED WITH THE CMP PROCESS AT QWEST. PLEASE COMMENT GENERALLY.

A. Ms. Balvin's statements regarding the Change Management Process ("CMP") are inaccurate. I will demonstrate that Qwest has been and continues to be very responsive to CLEC needs via the CMP, that Qwest does accept change requests for billing, and that denials of CRs are reasonable and justified. More importantly, none of the assertions made by Ms. Balvin with regard to the CMP provide support for her assertion that Covad needs more time to pay its bills.

Q. MS. BALVIN'S DISCUSSION OF QWEST'S DENIAL OF COVAD'S RECENT CIRCUIT ID CR SUGGESTS THAT A DENIAL FOR COST IS NOT REASONABLE. IS THAT A VALID CRITICISM?[15]

A. No. It is reasonable for Qwest to determine that a change request should be denied, and the CMP Document that Ms. Balvin included as an exhibit to her testimony provides for such denials:

> OSS Interface Change Request may be denied for one or more of the following reasons:

[15] See Exhibit RA-Reb-07 SCR100104-01.

- Technologically not feasible – a technical solution is not available
- Regulatory ruling/Legal implications – regulatory or legal reasons prohibit the change as requested, or if the request benefits some CLECs and negatively impact others (parity among CLECs) (Contrary to ICA provisions)
- Outside the Scope of the Change Management Process – the request is not within the scope of the Change Management Process (as defined in this CMP), seeks adherence to existing procedures, or requests for information
- Economically not feasible – low demand, cost prohibitive to implement the request, or both
- The requested change does not result in a reasonably demonstrable business benefit (to Qwest or the requesting CLEC) or customer service improvement

Qwest will not deny a CR solely on the basis that the CR involves a change to back-end systems. Qwest will apply these same concepts to CRs that Qwest originates. The Special Change Request Process (SCRP) (Section 10.4) may be invoked if a CR was denied as economically not feasible.[16]

The CMP Document also provides alternatives for CLECs whose CRs have been denied. As noted above, one option permits the CLEC to invoke the SCRP which allows the CLEC to fund the work to be done by Qwest.[17]

In addition, the CMP document provides two dispute resolution options. A CLEC may escalate a denied CR to the CMP Oversight Committee.[18] As noted above, Covad has made use of this escalation process in the past. And finally, a CLEC may seek dispute resolution via arbitration or an action before a state regulatory commission.[19] Were Covad to prevail in such an action the result would be a regulatory CR.

[16] See Covad Exhibit EB-2 at page 28.

[17] See Covad Exhibit EB-2b Section 10.4 beginning on page 79.

[18] See Covad Exhibit EB-2b Section 14.0 beginning on page 97.

[19] See Covad Exhibit EB-2b Section 15.0 beginning on page 99.

Notably, Covad has not escalated this CR to the CMP Oversight Committee, nor has Covad sought dispute resolution with regard to this CR, per the provisions of the CMP document as I described above. In essence, Covad has not exhausted all of its remedies available via the CMP with regard to CR SCR100104. It is inappropriate for Ms. Balvin to now introduce this issue in its arbitration with Qwest.

Q. MS. BALVIN CLAIMS ON PAGE 13 OF HER DIRECT TESTIMONY THAT QWEST'S DENIAL OF CR SCR100104 IS TOO VAGUE. DO YOU AGREE?

A. No and neither does Qwest. Ms. Balvin fails to state in her testimony that Qwest agreed, via the CMP, to provide more detail regarding the programming tasks that made Covad's request so expensive. Ms. Balvin implies that Qwest is somehow trying to hide information. That is certainly not the case. It is apparent that Covad did not understand the complexity and impact of the request being made through this CR, and Qwest agreed to add to the explanation of the complexity, and therefore the high cost, of Covad's request. Qwest's revised response to Covad, delivered on January 10, 2005 stated:

> Below is a high level itemization of the LOE for this request. The complexity and cost for this request spans multiple systems from ordering through billing. The Shared Loop circuit id is not currently housed in the ordering or billing systems, thus several systems would require changes in order to create a field for the circuit id, recognize, retain and pass the circuit id information through to the bill output.
>
> In addition to the changes to implement this new functionality, the existing accounts would have to be converted to support the enhancements to the circuit ID. This conversion would require extracting the circuit id from a free flow text to populate the newly created shared loop circuit id field. Additional modifications would have to be made to address the issue that in order for the new circuit id to appear on the CRIS billing account, both the end user and the Line Share billing Customer Service Records will need to be involved.

> Process changes for this request would include changes to the media procedures, changes to PCAT documentation, and re-training of Center personnel for bill validation via the electronic media.
>
> Consequently, Qwest is respectfully denying your request for SCR100104-01, due to economic infeasibility.[20]

Q. IS MS. BALVIN'S DISCUSSION OF REGULATORY CRS ON PAGE 14-15 OF HER TESTIMONY RELEVANT TO THE ISSUE OF PAYMENT TIME PERIODS?

A. No. An argument regarding whether or not a regulatory CR undermines the CMP has no bearing on whether or not Covad should be given more time to pay what it owes to Qwest. Ms. Balvin's argument about regulatory CR's is also a new argument by Covad and is outside the scope of this arbitration. Her regulatory CR argument was not raised by Covad during the parties' negotiations over the terms and conditions to be included in the interconnection agreement at issue in this proceeding, nor was it raised by Covad in the initial pleading they filed in this docket. As a result, it is simply beyond the scope of this docket and is not a relevant consideration for the Commission in the context of this docket.

A discussion of regulatory CRs might potentially be relevant if this Commission were being asked to order Qwest to implement a CR, per the dispute resolution provisions of the CMP. However, that is not the case here. Instead, Covad is requesting that language be included in its interconnection agreement with Qwest that would give Covad an

[20] See Exhibit RA-Reb-07.

additional fifteen days to pay its bills. Covad has not availed itself of the dispute resolution process in the CMP for any CR that I am aware of, and Covad has not brought such a CMP dispute to this Commission for resolution.

DEAVERAGED RATE ZONES

Q. MS. BALVIN CLAIMS ON PAGE 15 OF HER DIRECT TESTIMONY THAT THE USE OF A SINGLE USOC FOR PRODUCTS THAT HAVE MULITPLE RATES IS A DEFICIENCY IN QWEST'S BILLING SYSTEM. DO YOU AGREE?

A. No. Though not explicit in her testimony, I believe Ms. Balvin was speaking of the fact that some products have rates that have been deaveraged.[21] In this circumstance, Ms. Balvin is correct that for some USOCs there can be multiple rates applied. Frankly, multiple rates exist for all USOCs, since each product can have a different rate in each state. When Qwest implemented deaveraging, Qwest created a field containing each customer's rate zone in the customer's address. This information is found in the field RATEZONE which is displayed when a CLEC performs an Address Validation Query ("AVQ"). CLECs use the Address Validation pre-ordering function to determine if a customer address provided to the CLEC matches the address in Qwest's OSS. It makes sense that CLECs perform the AVQ in order to ensure an accurate address on a

[21] The FCC established in its pricing rules that "State commissions shall establish different rates for elements in at least three defined geographic areas within the state to reflect geographic cost differences." See 47 CFR 51.507(f).

subsequent order, as the address returned by the AVQ is the address used to validate the CLEC's order in Qwest's back office systems.

Q. IF THE RATE ZONE IS CONTAINED IN THE AVQ CAN A CLEC USE THIS FIELD TO VALIDATE ITS BILLS?

A. Yes. Again, as a former computer programmer, I can think of a number of ways to maintain the rate zone information and then use that information as a part of the bill validation process. It would make the most sense for Covad to capture the rate zone as a part of its ordering process. This value could then be stored with the customer's address, as it is stored at Qwest. It could also be saved in a reference table designed specifically for the bill validation process.

Q. PLEASE DESCRIBE AN ELECTRONIC BILL VALIDATION PROCESS USING THE RATE ZONE RETRIEVED FROM THE AVQ.

A. Covad could include a link between its billing system and either its customer information database, or a special table containing the Rate Zone as I described above. Simply combining that with a table containing the valid rates for each zone in each state, Covad could then electronically validate that the rate on the bill matches the rate it expects for each specific customer.

1 **Q. DOES QWEST PROVIDE ANY OTHER INFORMATION THAT COVAD**
2 **COULD USE WITHIN A BILL VALIDATION PROCESS?**
3 A. Yes. Qwest's public website contains detailed information regarding deaveraging.[22]
4 Included in this information are links to downloadable spreadsheets that identify the rate
5 zones by wire center. Arizona and eleven other states in Qwest's territory, deaveraged
6 rates by assigning wire centers to rate zones. The wire center assignments that have been
7 ordered in each state are listed by each wire center. The wire centers are identified by a
8 Common Language Location Identifier ("CLLI") Code.[23] Covad has the CLLI code
9 information for the wire centers in which it collocates and would presumably keep track
10 of which customers it serves out of these wire centers. Given all of this available
1 information, Covad could easily validate bill rates using reference tables containing the
12 rate zone assignments by wire center, and customers assigned in each wire center.

13 **Q. DOES THE USE OF A SINGLE USOC FOR PRODUCTS WITH DEAVERAGED**
14 **RATES PREVENT COVAD FROM ELECTRONICALLY VALIDATING BILLS**
15 **FOR THESE PRODUCTS?**
16 A. No. In fact, the use of a single USOC, rather than multiple USOCs, decreases the
17 complexity of the validation process. Again, since deaveraging has been in use for some
18 time, it is surprising that Covad has yet to establish an automated process to validate
19 deaveraged rates.

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[22] See Exhibit RA-Reb-08 Geographic Deavaraging General Information and Exhibit RA-Reb-09 MSA & Geographic Zone Data.

[23] See Exhibit RA-Reb-10 Arizona Wire Center Rate Zone Assignments.

1 **IV. CONCLUSION**

2 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

3 A. Covad has presented no credible evidence that Qwest fails to provide sufficient
4 information for Covad to perform electronic validation of the line sharing bills it receives
5 from Qwest. Qwest reiterates that the CMP is an appropriate and viable forum through
6 which Covad may seek reasonable changes to its bills. Finally, Covad has not
7 demonstrated that the use of a single USOC for products with deaveraged rates creates a
8 deficiency in Qwest's bills. In conclusion, Covad has provided no technical basis by
9 which it may claim that it needs more time to pay its bills.

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

11 A. Yes, it does.

12 1627552.1

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC. dba COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION.	)	**DOCKET NO. T-03632A-04-0425 T-01051B-04-0425**

STATE OF COLORADO
COUNTY OF DENVER

AFFIDAVIT OF RENÉE ALBERSHEIM

: **SS**

Renée Albersheim, of lawful age being first duly sworn, depose and states:

My name is Renée Albersheim. I am a Staff Witnessing Representative for Qwest Corporation in Denver, Colorado. I have caused to be filed written rebuttal testimony in Docket No. T-03632A-04-0425/T-01051B-04-0425.

1. 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.

Renée Albersheim

Renée Albersheim

SUBSCRIBED AND SWORN to before me this 17th day of January 2005

Jean M Turner

Notary Public

My Commission Expires: 4-13-2006

DOCUMENTS FILED WITH MINNESOTA PUBLIC UTILITIES COMMISSION BY JOINT TEAM (INCLUDING QWEST AND COVAD) ON NOVEMBER 22, 1999

STATE OF MINNESOTA
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Edward A. Garvey	Chair
Joel Jacobs	Commissioner
Marshall Johnson	Commissioner
LeRoy Koppendrayer	Commissioner
Gregory Scott	Commissioner

In the Matter of a Commission Initiated Investigation Into the Practices of Incumbent Local Exchange Companies Regarding Shared Line Access	))))	Docket No. P-999/CI-99-678

JOINT REPORT TO THE COMMISSION

This report to the Commission was prepared cooperatively and is submitted by U S WEST Communications, Covad Communications Company, Rhythms Links Inc. (formerly ACI), NorthPoint Communications Inc., Onvoy, and Sprint Communications Company L.P. New Edge Network, Inc., and JATO Communications Corporation took part in the

I. THE BACKGROUND FOR THIS REPORT

On October 8, 1999, the Commission issued an Order Requiring Technical Trials, Good Faith Resolution of Operational Issues, and A Resulting Report regarding line sharing. In the Order, the Commission directed USWC and any interested data CLECs to conduct a technical trial of the CLECs' equipment to determine whether the CLECs' equipment interferes with USWC's voice grade network. In addition, the Commission ordered USWC and any interested CLECs to work together to develop proposed terms and conditions under which USWC would provide line sharing to data CLECs. The Commission indicated that these "terms and conditions" discussions should address the following operational issues: (i) responsibility for central office equipment, (ii) loop testing and repair arrangements, and (iii) notification of

customers and the LEC sharing the line as necessary to enhance service efficiency and effectiveness.

On October 18, 1999, the Commission issued a Notice of (i) Report Deadline and Content, (ii) Commission Meeting, and (iii) Proposed Agenda. With respect to the technical trial, the Commission indicated that the report should contain (i) a description of the research method employed, (ii) an executive summary of the results, (iii) all supporting documentation, and (iv) a joint statement from the companies' technical staffs conducting the trials, clearly indicating the issues where the technical staffs agree and where they disagree. With respect to the discussion of non-technical terms and conditions, the Commission indicated that the report should include a joint statement as to which issues have been resolved and which issues remain unresolved.

II. HOW THE PARTIES APPROACHED THEIR TASK

U S WEST and the CLECs divided themselves into three teams to address the Commission's order. The Technical Testing Team designed and conducted the lab and field tests of the CLECs' equipment. The Operational Impacts Team worked together to identify and solve operational questions raised by line sharing. The Administrative Team performed an oversight function and addressed policy and business issues.

III. THE FORMAT OF THIS REPORT

This report includes four major components:

- **The Team Reports.** Each team prepared a report of its work for the Commission. Each report generally describes the work performed by the team, provides an executive summary of the agreements and/or conclusions reached by the team (if any), and describes any exhibits attached to the report.

- **The Exhibits.** The Technical Testing Team and the Operational Impacts Team selected and prepared a group of exhibits that set out the detail of the work they performed. The exhibits are attached to the reports from the respective teams.
- **The Decision Point List**. The Administrative Team prepared a Decision Point List ("DPL") identifying critical line sharing issues for the Commission. The DPL states whether U S WEST and the CLECs agreed on the resolution of the issue and, if so, states the joint resolution reached by the parties. If an issue remained unresolved or disputed at the end of the parties' discussions, the DPL sets out both U S WEST's position and the CLECs' position on that issue.
- **The Terms and Conditions for Line Sharing**. If the Commission orders line sharing, these are the terms and conditions on which the parties reached agreement. Because some unresolved and/or disputed issues remain, additional terms and conditions may be necessary to make line sharing operational in Minnesota. At the end of the Terms and Conditions for Line Sharing, the parties identified the unresolved or disputed issues that must be resolved for line sharing to be implemented.

IV. CONCLUSIONS REACHED

The parties reached the following conclusions regarding line sharing based on the technical trials and the operational discussions:

- The performance of all of the tested CLEC line sharing equipment fell within acceptable parameters of the standards referenced in the technical test report.
- U S WEST can modify its systems to support line sharing.

- U S WEST and the CLECs can work cooperatively to address repair and maintenance issues.
- The CLECs will have the option to purchase the central office splitters or to have U S WEST act as the CLEC agent and purchase the splitters. The splitter will be leased to U S WEST for $0. U S WEST will install, control, maintain and repair the central office splitters. The CLECs may re-negotiate this point with U S WEST in the future.
- U S WEST and the CLECs must work closely together to help set customer expectations and to educate customers regarding line sharing.

V. MAJOR UNRESOLVED AND/OR DISPUTED ISSUES

The parties identified the following unresolved and/or disputed issues related to line sharing:

- U S WEST believes further testing is required before any decision should be made regarding widespread deployment of line sharing. The CLECs believe that all technical and operational issues have been resolved to the point that the Commission should order immediate implementation of line sharing.
- The parties have not agreed to the cost elements that should be considered in setting prices for line sharing. Neither have the parties agreed on final pricing for any such element. If the Commission orders line sharing, the parties have not agreed to a schedule for making central offices capable of supporting line sharing.
- If the Commission orders line sharing, the parties have not agreed to a schedule delineating when U S WEST will begin taking and provisioning orders for shared lines.

VI. RECOMMENDATION FOR HOW TO PROCEED

The parties have different recommendations for how to proceed.

The CLECs believe that the Commission should order U S WEST to begin line sharing on the Terms and Conditions included with this report and the following additional terms:

(1) U S WEST must begin preparing all central offices in which data CLECs are currently collocated for splitter placement.

(2) U S WEST must have all such central offices service ready for line sharing (i.e. all necessary equipment installed and connected) by January 31, 2000.

(3) U S WEST must begin accepting orders for shared lines on January 31, 2000.

(4) U S WEST must begin provisioning shared lines on January 31, 2000.

(5) The recurring and non-recurring charges for a shared line should be no more than U S WEST currently includes for itself in its cost studies supporting the Megabit tariff.

(6) CLECs should not incur any collocation charges caused by U S WEST's desire to maintain control of the POTS splitter.

U S WEST believes that the technical test was too limited in scope to support a determination that wide spread deployment of line sharing is possible at this time. For example, the technical test was limited in terms of the number/diversity of loops tested and binder group impact. More importantly, the technical test did not address the impact of line sharing on U S WEST's voice service from a customer perspective or the capacity/capabilities of U S WEST's existing pre-order, order, provisioning, maintenance, and billing systems to handle line sharing. For this reason, U S WEST believes that a line sharing trial should be conducted in one or more central offices under "real world" conditions to ensure that all technical and operational issues

associated with line sharing deployment have been identified and all possible solutions to those issues have been fully evaluated. The trial also could be used to assess customer perception of line sharing and to further address educational requirements to avoid customer confusion. U S WEST is willing to conduct such a trial with all interested CLECs to better enable the parties and the Commission to evaluate the feasibility of wide spread line sharing deployment. The Commission could determine what, if any, further steps are necessary at the conclusion of the trial.

ADMINISTRATIVE ISSUES AND ESCALATION FOR LINE SHARING IN MINNESOTA

INTRODUCTION

After the first few initial all-carrier meetings, the participants created an Administrative Issues Team. The Administrative Issues Team's charter was to:

- handle discrete issues that fell outside the scope of the Operational Impact Team, Technical Testing Team, and the sub-teams;
- act as an oversight group;
- be a forum for issue escalation from the other teams.

The Administrative Issues Team discussed pricing issues and the ownership of and processes surrounding CLEC splitters. The team also designed and organized the final report to the Commission. Additionally, the Administrative Issues Team received reports and issue escalation from the Operational Impact Team, Technical Testing Team and the Network Architecture sub-team.

The Administrative Issues Team met weekly, plus on an as needed basis. There were two general meetings on October 5 and 11 before the process was broken down into discrete groups. The Administrative Issues Team met on October 14, 21, 22, 27, November 3 and 10. All of the active carriers had participants on the Administrative Issues Team including Covad, JATO, New Edge, NorthPoint, Onvoy, Rhythms, Sprint, and U S WEST. MPUC staff also participated on the Administrative Issues Team conference calls.

ISSUES AND DISCUSSION OF ADMINISTRATIVE TEAM

I. SPLITTER OWNERSHIP AND PROCESS

The splitter handles both the voice and data traffic, and therefore its ownership and placement in the central office must be coordinated between both the voice and data carriers. For the purpose of initial implementation, there was general agreement that the CLECs would be responsible for purchasing the splitters but would also have the option of U S WEST purchasing the splitters for the CLEC. U S WEST would install the splitters in one of three possible locations in the central office and U S WEST would maintain responsibility for maintenance and repair of the splitters. CLECs will be allowed to upgrade the splitters at their discretion. The Administrative Issues Team referred more detailed issues, such as maintenance, repair, and test access to the Operational Impact Team, the Network Architecture and Repair and Maintenance sub-teams. Carriers agreed that the issue of splitter placement in the central office may be revisited after initial implementation to explore additional options and configurations.

The process for deploying splitters in U S WEST central offices was also a topic of discussion in the Administrative Issues Team. U S WEST and the CLECs have agreed to supplement the collocation processes for splitter deployment in central offices where CLECs are not currently collocated. In order to augment existing CLEC collocation arrangements to add splitters, CLECs and U S WEST have tentative agreement to work with U S WEST on a project basis to prioritize those central offices. CLECs and U S WEST have not agreed upon the collocation intervals or pricing issues associated with this process. U S WEST has an action item to further research collocation intervals.

Carriers agreed to the need for establishing forecasting procedures and processes for splitters, office configuration, etc.

II. PRICING

The Commission Order, at page 5, states that "USWC and interested CLECs will address and resolve the pricing issue in the 'terms and conditions' discussions required by the Order." This issue is addressed in the Decision Point List.

III. REPORT STRUCTURE

The Administrative Issues Team was tasked with organizing and designing the format of the report. The carriers worked cooperatively and there was quick consensus around the format of the report.

IV. ESCALATIONS/REPORTS

1. Lab and Field Trial

The Administrative Issues Team discussed the following issues as escalation from the Technical Testing Team:

- U S WEST proposed test plan and the applicability of ANSI standard T1E1.413, Annex E. The Technical Testing Team ultimately resolved this issue.
- The equipment configuration and number of end users for the field trial. The Technical Testing Team resolved these issues.

2. Network Architecture

The Network Architecture sub team agreed upon three possible configurations for splitter placement in the central office. To determine which configurations will be available in a particular central office, U S WEST must conduct a space review.

U S WEST agreed to research the possibility of inventorying central offices up front to give CLECs notice of the types of arrangements available. The specific network architecture agreed to between U S WEST and the CLECs is discussed more thoroughly in the Operational Impacts Report.

3. Operational Impact Team

The Administrative Issues Team discussed the following issues that came from the work of the Operational Impact Team:

- The Team agreed to limit Phase I of this process to issues regarding the addition of a CLEC DSL service to an existing U S WEST voice customer's loop;
- The Team agreed to limit Phase I implementation to end user loops that do not need conditioning;
- The team agreed that an end user's voice service will have to be briefly interrupted to provision CLEC DSL services, in the same manner that it is done for Megabit service today. The team also agreed to further investigate options to minimize this impact going forward;
- The Team agreed to using the standard unbundled loops provisioning interval- usually five days.

THE OPERATIONAL IMPACTS OF LINE SHARING IN MINNESOTA

INTRODUCTION

The line sharing Operational Impacts Team met to resolve operational and support systems issues related to line sharing. The group considered five general categories of OSS issues: (1) pre-ordering (e.g., pre-qualification of loops for ADSL compatibility); (2) ordering; (3) provisioning; (4) billing and (5) repair and maintenance. When necessary, the group relied on sub-groups to address specific issues.

The group based its work on a set of agreed-upon assumptions regarding how line sharing will work during its initial deployment. The group also agreed that OSS implementation should be divided into the following phases:

- Phase I implementation issues are those necessary to make basic line sharing work in the first instance.
- Phase II implementation issues are less important and therefore can wait to be resolved until after Phase I implementation is complete.
- Phase III implementation issues are those issues, such as how to change a customer from one DSL provider to another, that need to be resolved but are not critical to deployment.

This report is divided into five sections. The first section identifies what the group believed its charter to be based on the Commission's order in this docket. In Section II, the group describes how it operated and identifies its members. Section III sets out the specific issues that the group addressed. Section IV identifies the

assumptions the group made as the basis for addressing those issues. Section V is an executive summary of the areas where agreements were reached.

From time to time, this report will reference to the Decisions Point List that the parties submitted for the convenience of the Commission. There are five other exhibits to this report:

- Exhibit OSS-1 is a table identifying the individuals that participated in the Operational Impacts Team and each person's company affiliation and title.
- Exhibit OSS-2 is a "Gap Matrix" identifying potential gaps in the OSS required for line sharing and potential solutions to those gaps.
- Exhibit OSS-3 is a set of minutes from the group's meetings. These minutes record the ongoing discussions between U S WEST and the CLECs regarding operational issues surrounding line sharing. As such, they include many alternatives and ideas that were explored but may not represent the final conclusions of the team. This report, the Gap Matrix, the Terms and Conditions document and the Decision Point List reflect the team's final conclusions.
- Exhibit OSS-4 is the output from the subteam that designed the network architecture for the central office.
- Exhibit OSS-5 is a revised collocation application.

The Operational Impacts Team concluded that systems modifications can be made to support line sharing at U S WEST. The group and its sub-groups designed a basic process flow for handling line sharing operational issues. A network architecture sub-

group also agreed on a general plan for configuring CLEC and ILEC equipment in a central office to support line sharing.

I. COMMISSION REQUIREMENTS

Ordering Paragraph 1 of the Commission's October 8, 1999 order in this docket requires USWC and interested CLECs to "work together collectively on a carrier-to-carrier basis to develop the terms and conditions under which USWC would provide line sharing to data CLECs in the event the Commission were to order it to do so." The order requires the parties to engage in this process in good faith.

II. GROUP COMPOSITION AND OPERATION

Beginning on October 15, 1999, the line sharing Operational Impacts Team met every Friday at U S WEST headquarters in Denver from 9:00 a.m. to 1 p.m. Many U S WEST and CLEC individuals participated in part or in whole via telephone. At these meetings, the group developed the high level processes for line sharing and identified issues to be resolved related to those processes. The group assigned the task of resolving those issues to various individuals and/or sub-groups that worked on the issue during the week and reported back to the Operational Impacts Team at the following meeting.

By the end of the process, the team had created separate subteams to address three issues: (1) repair and maintenance flow; (2) the pre-qualification of loops for ADSL compatibility using U S WEST's pre-ordering system (IMA 4.2), design loop records ("DLRs") and/or the results of mechanized line tests; and (3) the technical configuration for deploying CLEC splitters in U S WEST central offices.

Exhibit OSS-1 to this report contains a table identifying the individuals that participated to some degree or another in the Operational Impacts Team meetings. The leader of the OSS team for U S WEST and for each CLEC is identified with an asterisk.

III. ISSUES ADDRESSED BY THE OPERATIONAL IMPACTS TEAM

The Operational Impacts Team addressed the following general issues:

(1) What pre-order information do the CLECs require for shared lines? Are functions meeting those requirements currently available? If not, what will be required to make such functions available?

(2) What information will U S WEST require when a CLEC orders a shared line? Are functions meeting those requirements currently available? If not, what will be required to make such functions available?

(3) What process will U S WEST follow to provision a shared line? Will shared lines be provisioned through the design circuit process or through the POTS process?

(4) How will U S WEST and the CLECs coordinate repair and maintenance of a shared line?

(5) How will all of the shared line billing functions be handled by U S WEST?

(6) What U S WEST systems will be affected by line sharing? Are those systems capable of handling orders for shared lines? If not, what will it take to make those systems capable of doing so?

IV. ASSUMPTIONS MADE BY THE GROUP AS THE BASIS OF ITS DISCUSSIONS

The group made the following assumptions about line sharing to facilitate its work:

(1) In Phase I, line sharing will be available only for (a) customers that already have U S WEST voice service at the time the customer orders CLEC DSL services, and (b) customers that have voice and data services from U S WEST and wish to convert data services over to a CLEC. Also during Phase I, a customer will be able to disconnect a CLEC data service without disconnecting or changing U S WEST voice service.

(2) In Phase II, customers that have voice service from U S WEST and ADSL from a CLEC will be able to convert their data service to U S WEST. Also, customers will be able to disconnect U S WEST voice and CLEC data services through one contact.

(3) In Phase III, U S WEST and the CLECs will address the following scenarios: (a) a customer that does not already have U S WEST voice service wants to order U S WEST voice and CLEC ADSL at the same time; (b) a customer wants to change CLEC ADSL providers on a U S WEST shared line; (c) a customer has U S WEST voice and CLEC ADSL and wants to cancel U S WEST voice while maintaining ADSL on the line (in this instance, the line would revert to a UNE). In the interim, U S WEST and the CLECs may be able to perform these functions via multiple discrete orders. Also in Phase III, customers will be able to transfer combined U S WEST voice services and CLEC ADSL services from one location to another through one contact.

(4) The CLEC requesting line sharing is collocated in a U S WEST central office and has capacity on the POTS splitter.

(5) Line sharing will be applicable only to simple line businesses or residences with flat-rated or measure-rated services the equivalent of 1FR, 1MR, 1FB or 1MB.

(6) An ISDN customer that wants DSL across a shared line would have to convert to one of the classes of service identified above first.

(7) No INP or LNP.

(8) Applicable current processes will remain in place and this group will only address process improvements material to line sharing.

(9) The POTS splitter will be located in the central office as close to the interconnection distribution frame and/or DS0 termination points as possible. The POTS splitter will not be located in a CLEC collocation space for purposes of Phase I implementation.

(10) U S WEST will inventory the POTS splitter and have knowledge of the points where connections will need to be made during the provisioning process.

(11) The POTS splitter data ports will be hard-wired to the CLEC collocation area.

(12) The CLEC will provide U S WEST with the POTS splitter circuit assignment information as part of its local service request for a shared line.

(13) Line sharing will only be available on U S WEST retail lines in Phase I. If a customer cancels or loses U S WEST voice service for any reason, the customer will also lose the CLEC's ADSL.

V. EXECUTIVE SUMMARY OF AGREEMENTS REACHED

The parties agreed that U S WEST's systems can be modified to support line sharing. The parties further agreed that a reasonable estimate for the completion of systems and process work necessary to support the provisioning and maintenance of line sharing is some time in the first quarter of 2000, with a few points of note:

- Systems estimates have been developed without the benefit of completed detailed requirements and should be considered planning estimates only, subject to further clarification and refinement.
- Initial deployment would be based on a combination of automation and manual work steps. The parties have agreed to work together to manage line sharing implementation in a way that accommodates the market needs of the CLECs and recognizes the initial delivery issues of U S WEST.
- No viable billing solution will be available before second quarter of 2000. The parties have agreed to use back-billing to true up accounts from the start of service, if necessary.

The Operational Impact Team focused on designing a process that provisioned shared lines through U S WEST's POTS systems flow. The team identified eight systems gaps that will need to be addressed. The identified gaps are described on the Gap Matrix submitted as Exhibit OSS-2. The parties agreed to continue to work together with

Telcordia to explore lower cost, more expedient solutions to some of these gaps. There are no unresolved issues regarding this proposal.

The Operational Impacts Team also designed a repair and maintenance process for line sharing. For repair, U S WEST will remain responsible for voice service and physical line problems between the network interface device at the customer premises and the point of demarcation in the central office. The CLECs will remain responsible for data service problems. The parties have agreed to a mutual trouble shooting process, when required, to help isolate whether a particular problem is a voice service problem, a physical line problem or a data service problem. Each party will be responsible for maintaining its own equipment. The party that controls the splitter will be responsible for maintaining it.

A subteam from the Operational Impacts Team also agreed on the basic network configuration for a central office that will be capable of supporting line sharing. The splitters will be placed as close as possible to the interconnection distribution frame and/or CLEC DS0 (telephone line) terminations in the central office. The group also agreed to consider locating the splitter on or near the main distribution frame under certain conditions. U S WEST will pre-wire the splitters from the data ports to the CLEC collocation area to aid in the provisioning process. The basic network configurations agreed to by the subteam are attached as exhibit OSS-4. The subteam also agreed to revise the collocation application to capture requests for splitter placement. The revised application pages are attached as exhibit OSS-5.

Finally, the team identified the following customer education issues:

- Shared line customers will be informed that the customer should call U S WEST for problems related to its voice service. The customer should call its CLEC contact for problems related to its data service.
- Shared line customers will be informed that their data service is dependent on their voice service. If there is a problem with the physical line that brings down the voice service completely, the customer may also lose data services for some period of time.
- Shared line customers will also be informed that they will lose CLEC data services during Phase I implementation if U S WEST voice services across the line are cancelled or terminated for any reason.
- During Phase I implementation, customers will be informed that they must make separate arrangements with U S WEST and the CLEC contact for DSL services if the customer wishes to transfer both services to a new location.

Minnesota

Line Sharing Test:

Technical Report

INTRODUCTION

This report addresses the joint lab and field technical tests performed by, Covad, North Point, Rhythms, Sprint, and U S WEST to determine the impact of line sharing on voice service quality. The technical testing occurred in two parts. The lab testing took place beginning October 15, 1999 and going through October 29, 1999. The field test followed beginning on November 1, 1999 and going through November 5, 1999.

I. RESEARCH METHOD EMPLOYED

The technical tests completed in response to the Minnesota Commission's October 8, 1999 order were done in two parts: laboratory tests were conducted in the U S WEST Lab in Littleton, Colorado, and field tests done at the U S WEST Orchard Central Office in Golden Valley, Minnesota.

The tests were based on an agreed to set of test procedures set out in the Test Plan document attached as Exhibit TEC-6.

The test plan is based on a subset of ANSI T1.413-1998 Annex E " POTS Splitter Requirements (normative)". This section applies to the characteristics of an individual POTS splitter.

The Test Plan also includes a subset of IEEE 820-1992 "Standard Telephone Loop Performance Characteristics" and applies to the end –to-end voice quality .

Additionally, the Metropolitan 911 Board requested that 911 tests be a part of the overall testing. This request was met via 911 tests done in the field testing segment.

The team performed several additional tests as described in the testing documents.

I. EXECUTIVE SUMMARY OF TEST RESULTS

Lab Test Results

The technical lab testing was performed based upon the following parameters:

- As described in the Test Plan document,the tests were performed to validate that the CLECs line sharing equipment (central office splitters and customer filters) met an agreed to subset of the ANSI T1.413.Annex E requirements.
- The tests were performed on simulated facilities in a laboratory environment.
- A subset of IEEE 820-1992 loop tests were also performed as described in the Test Plan document.

The equipment tested conformed to the technical parameters of the ANSI T1.413 Annex E subset tested to, with minor variations. The team agreed that the variations are acceptable.

Field Test Results

Following the lab tests, a field test was initiated to insure that the laboratory results were replicated in a "real" world environment, and that voice degradation was tested. The field tests were based out of the Orchard (Golden Valley, MN) Central Office since most of the Co-Provider test partners had previously collocated DSL equipment in this U S WEST Central Office.

The field tests were done using "friendly" (voluntary, temporary, non-billed for) customer loops of business and residences served by the Orchard central office. The final list of loops consisted of 7 loops used by U S WEST customers, one loop identified by Covad, and one loop identified by Sprint. A total of 8loops were physically tested. The

first 4 loops tested were tested at a U S WEST business customer location. At that location, each separate line was tested with one co-provider's equipment. The remaining 4 loops were tested with each co-provider using all of their configurations on each loop. Several other loops were offered, but did not pass the loop qualification for DSL (e.g. load coils, loop length, etc.). The primary criteria for the field tests were:

- The same CLEC splitters and filters that were tested in the lab were tested in the field;
- Some of the field tests were developed based on a subset of the IEEE 820 requirements and are described in Section 2 of the Test Plan document;
- Some of the field tests were developed based on the U S WEST five point test for voice grade quality;

The results of the field tests identified above for the 8 loops tested fell within acceptable limits. It should be noted, however, that the field tests performed do not, and could not represent all of the diverse loop network experienced in a serving area:

- The team tested loops of approximately 7,800-17,400 ft were available and were tested (0-17,400 ft).
- The technical nature of this lab and field test did not test for customer perception of voice quality (a traditional Telcordia measurement) due to the constraints of the timeframes and the test parameters of this effort. However, the testers were able to listen to the dial tone and make 911 calls.

II. SUPPORTING DOCUMENTATION

The following exhibits are provided as supporting documentation:

- Exhibit TEC – 1 A List of the Parties involved in the technical testing
- Exhibit TEC – 2 A listing of the participants of the Technical Team
- Exhibit TEC – 3 A Timeline of the Technical Testing Team work
- Exhibit TEC – 4 A List of the meetings held for the Technical Test Team
- Exhibit TEC – 5 A list of assumptions
- Exhibit TEC – 6 Test Plan
- Exhibit TEC – 7 Test Parameters
- Exhibit TEC – 8 Test Configurations
- Exhibit TEC - 9 Test Results.

III. JOINT STATEMENT

All of the parties agree that the laboratory tests showed that the equipment tested in the lab conformed to the technical parameters described in the ANSI T1.413 Annex E with minor variations. The team agreed that the variations were acceptable.

All of the parties agree that the field tests results fell within the criteria of the standards tested.

OPERATIONAL IMPACT TEAM

PERSON	COMPANY	TITLE
Jerry Shypulski	U S WEST	Wholesale Operations Process Mgr
Linda Miles	U S WEST	Process Specialist
Barbara Brohl	U S WEST	Director – Information Technologies/Regulatory Support
Jasmin Espy	U S WEST	Vice President – Wholesale Marketing
Kevin Stover	U S WEST	Information Technologies Analyst
Jon Ecklund*	U S WEST	Manager – Wholesale Systems
Mike Radcliff	U S WEST	Product Manager
Mary Retka	U S WEST	Director – Interconnection Planning
Jeanette Cain	U S WEST	Information Technologies – Senior IT Specialist
Dennis Pappas	U S WEST	Director – Interconnection Product Services
Linda Gale	U S WEST	Regulatory Manager
Jeff Thompson	U S WEST	Director – Information Technologies
Mark Nickell	U S WEST	Manager – Unbundled Loop
John Genovese	U S WEST	Manager – Network Architectures
Stover Lewis	U S WEST	Information Technologies – IT Specialist
John Boe	U S WEST	General Manager
Benjamin Campbell	U S WEST	Manager – Unbundled Loop, Sub Loop
Bill Campbell	U S WEST	Director-Wholesale Operations Process Management

OPERATIONAL IMPACT TEAM

PERSON	COMPANY	TITLE
Rob Van Fossen	U S WEST	Executive Director – Information Technologies
Michael West	Sprint	National Network Products Process Manager
Joyce Frost	Sprint	Competitive Operations Manager
Rob Hisle	Sprint	Senior Product Manager
Darin Liston	Sprint	Principle Program II Manager – Technology
Amy Cichowski	Sprint	National Systems Manager
Bob Vick	Sprint	Senior Product Development Manager
Joan Spivey	Sprint	Product Manager III
Jo Gentry*	Rhythms Links	Director – National Deployment
Ty Weston	Rhythms Links	Customer Services Manager
Steve Ewen	Rhythms Links	Systems Manager
Jill Wiesner	Rhythms Links	Project Manager – National Deployment
Andre Bachelet	Rhythms Links	Customer Services Manager
Tanya Van Court*	Covad	VP, Business Integration (formerly Director, Operations Staff)
Matt Wall	Covad	Business Analyst
Clay Deanhardt	Covad	Senior Counsel
Ron Marquardt	Covad	Mgr, Advanced Services
Brett Flinchum	Covad	Process Manager
Steve Moreno	Covad	Process Manager
Cliff Dinwiddie*	NorthPoint	Senior Manager LEC Relations

OPERATIONAL IMPACT TEAM

PERSON	COMPANY	TITLE
Caryn Anderson	NorthPoint	Senior Manager – LEC Relations
Christine Mailloux	NorthPoint	Product Development Manager
Susan McAdams*	New Edge Networks	Vice President – Government & Industry Affairs
Jim Milnor*	Onvoy	Operations Manager, Local Services
David Bryson*	JATO	Manager – Regulatory Affairs

Based on Known Requirements as of 11/08/1999

Gaps	Applications Impacted	Specific Issue	Interim Solution[1]	Deployment Timeframe [1]	Long-term Solution [1]	Deployment Timeframe [1]
Gap 1: LSR Modification & transmission of service order in system	IMA	Need a mechanism to identify shared line order. (Meet point, "CFA, UCA UPR", CLEC ID, TN, ADSL indicator).	Proprietary LSR based on USW and DLEC agreement. This may be done via email, fax, or by faking IMA to use existing fields. A team of service order writers and OBF reps could accomplish this goal.	TBD	Make the long term changes through the OBF, such that, common rules sets are established	TBD
Gap 2: Order writing (between ICADS and SOP)	ICADS (creating automation).	Need business rules added to process shared-line orders, and to create SO.	No Interim Requirement	No Interim Requirement	Dependant on the standards within OBF establishing a rule set.	4Q2000
	Fetch-n-stuff and Data Arbiter	Enhancement to perform shared line facility availability queries. Later phases.	No Interim Requirement	No Interim Requirement	These changes are understood and can be worked independently from the OBF issues.	TBD
	SOPAD, SOLAR, RSOLAR (creating automation).	An Enhancement is necessary to accept shared line orders and manage the service order flow with automation between systems.	No Interim Requirement	No Interim Requirement	Establish transformation from the OBF forms to the Internal USOCs and FIDs.	4Q2000

[1] All timeframes and solution definitions are estimates based on pending requirements work and information to be provided by 3rd parties. These estimates should be considered as planning estimates, and are based on the current understanding of systems capabilities assessed during the operational impact review. For this reason, the estimates may be subject to change.

Gaps	Applications Impacted	Specific Issue	Interim Solution [1]	Deployment Timeframe [1]	Long-term Solution [1]	Deployment Timeframe [1]
	Manual SO Entry in SOPAD, SOLAR, RSOLAR	An Enhancement is necessary to accept shared line orders and manage the service order flow with a manual service order entry procedure.	Establish internal USOCs and FIDs for all systems within the Operational Support Systems environment.	1Q2000	See the automation items.	See the automation items.
Gap 3: Connecting Point Inventory	LFACS (All regions)	Current phase no impacts. Later phase, enhancements to allow for designated assignment locations (constrained loop assignment) and to reuse in place voice facilities.	Establish internal USOCs and FIDs. No substantial impacts to LFACS	1Q2000	Work any manual issues that may have been over sites.	2Q2000

Gaps	Applications Impacted	Specific Issue	Interim Solution [1]	Deployment Timeframe [1]	Long-term Solution [1]	Deployment Timeframe [1]
	SWITCH and APP	Enhancements to associate the customer's line with the connection points for the splitter, switch equipment, and ICDF, while reusing existing voice facilities.	Inventory the splitter in SWITCH as miscellaneous equipment. The resulting Manual assignments will fallout in the LPC. DLEC will pass ME FID on the LSR.	1Q2000 in limited volume.	Remove all the manual workarounds.	4Q2000 Telcordia offer.
			APP -- To simulate the transactions performed by the loop provisioning personnel to clear RMAs in SWITCH. This is required to support volume growth.	2Q2000 – APP, Automates portions of the manual process that falls out out to the LPC.		

Gaps	Applications Impacted	Specific Issue	Interim Solution[1]	Deployment Timeframe [1]	Long-term Solution [1]	Deployment Timeframe [1]
	WFA/C	Table work for proper dispatch and workflow.	No known issue.	No known issue.	Establish internal USOCs and FIDs.	1Q2000
Gap 4: Repair Handling	NSDB/WFA	Repair tickets will flow through. NSDB for the design portion of the service.	No Interim Requirement		Line assignments are required as a part of NSDB for the design portion of the repair.	1Q2000
	LMOS	Repair tickets will flow through. LMOS for the POTS portion of the service.	No Interim Requirement		Line assignments are required as a part of LMOS for the POTS portion of the repair.	1Q2000
Gap 5: No interface between FOMS and WFA/DI	FOMS and WFA/DI	Interface bring up and testing between FOMS and WFA/DI.	No Interim Requirement		Test and turn up on the interface based on a WC rollout plan. Determination of of DLECs intended Service offering allows for a smoother implementation.	1Q2000 (ongoing dependant on the DLEC Rollout.

Gaps	Applications Impacted	Specific Issue	Interim Solution[1]	Deployment Timeframe [1]	Long-term Solution [1]	Deployment Timeframe [1]
Gap 6: Single product, multiple customer (need 2 billing records to be created from a single order.)	Billing (CRIS)	Enhancements to bill the Co-Provider for shared line charges. Must have 2 CSRs that are related.	This is a Bulk bill solution (DLEC BAN per state). A DLEC will receive a bill that indicates that lines are shared, but to validate specific TN information requires that the CSR be reviewed. Back billing will be used to bring accounts up to date if service is provisioned before the interim solution can be implemented.	2Q2000	The interim billing mechanisms need to be modified to show TN detail, but this impact is unknown. Conversions will be needed once the billing systems are modified.	TBD
Gap 7: Need to identify accounts that are resold in IMA so that CLEC's cannot place orders against the line for line-sharing	IMA	Identify resold accounts and reject line sharing orders as appropriate. Similarly, identify line shared accounts and reject resale orders as appropriate.	CLECs will review CSRs prior to placing orders. U S WEST will also review CSRs as Service Orders are written.		Accounts will have the Line Sharing USOCs and FIDs on the CSRs. The handling of the End Customers and CLECs would then be handled via Methods.	See gap 6. Required concurrent with order automation long term solutions in Gap 2.