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ARIZONA CORPORATION COMMISSION

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1 WILLIAM A. MUNDELL
2 CHAIRMAN
3 JIM IRVIN
4 COMMISSIONER
5 MARC SPITZER
6 COMMISSIONER

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AZ CORP COMMISSION
DOCUMENT CONTROL

6 IN THE MATTER OF INVESTIGATION)
7 INTO U S WEST COMMUNICATION,)
8 INC.'S COMPLIANCE WITH CERTAIN)
9 WHOLESAL PRICING REQUIREMENTS)
10 FOR UNBUNDLED NETWORK ELEMENTS)
11 AND RESALE DISCOUNTS.)

DOCKET NO: T-00000A-00-0194

NOTICE OF FILING STAFF'S
TESTIMONY

12 Arizona Corporation Commission Staff ("Staff") hereby files the redacted direct testimony
13 of William Dunkel in the above-referenced matter. Undredacted versions are being provided to
14 Hearing Division and those parties who are signatories to the Protective Agreement herein.

15 RESPECTFULLY SUBMITTED this 12TH day of June, 2001.

16 Arizona Corporation Commission

DOCKETED

JUN 13 2001

17 DOCKETED BY [Signature]

18 *Maureen A. Scott*

Maureen A. Scott, Attorney
Legal Division

19 Arizona Corporation Commission
20 1200 West Washington Street

Phoenix, Arizona 85007

21 Telephone: 602/542-6022

Facsimile: 602/542-4870

22 e-mail: maureenscott@cc.state.az.us

23 The ORIGINAL and ten (10) copies of the
24 foregoing were filed this 12th day of June,
2001 with:

25 Docket Control
26 Arizona Corporation Commission
27 1200 West Washington Street
28 Phoenix, Arizona 85007

1 COPIES of the foregoing were mailed
2 this 13th day of June, 2001 to:

3 Jon Poston
4 Arizonans for Competition in Telephone
5 Service
6 6733 East Dale Lane
7 Cave Creek, Arizona 85331-6561

6 Richard S. Wolters
7 AT&T Communications of the
8 Mountain States, Inc.
9 1875 Lawrence Street, Room 1575
10 Denver, CO 80202-1847

9 Mary E. Steele
10 Davis-Wright-Tremaine
11 2600 Century Square
12 1505 - 4th Avenue
13 Seattle, WA 98101-1688

13 Joan Burke
14 Osborn Maledon, P.A.
15 2929 N. Central Avenue, 21st Floor
16 Phoenix AZ 85067-6379

15 Gregory Kopta
16 Davis Wright Tremaine
17 2600 Century Square
18 1501 Fourth Avenue
19 Seattle, WA 98101-1688

19 Drake Tempest
20 Qwest Communications
21 555 Seventeenth Street
22 Denver, CO 80202

21 Kathryn E. Ford
22 QWEST COMMUNICATIONS, INC.
23 1801 California Street, Suite 4900
24 Denver, CO 80202

24 Timothy Berg
25 Fennemore Craig, P.C.
26 3003 North Central Avenue, Suite 2600
27 Phoenix, AZ 85012

27 Michael W. Patten
28 Roshka Heyman & DeWulf
400 N. 5th St. Suite 1000
Phoenix Arizona 85004

Jeffrey W. Crockett
Jeffrey B. Guldner
Snell & Wilmer L. L. P.
One Arizona Center
Phoenix, AZ 85004-2202

Steve Sager
McLeodUSA
215 S. State Street, 10th Floor
Salt Lake City, Utah 84111

Rex Knowles
Nextlink Communications
111 East Broadway, Suite 1000
Salt Lake City, Utah 84111

Michael Grant
Todd C. Wiley
GALLAGHER & KENNEDY
2575 E. Camelback Road
Phoenix, AZ 85016-9225

Thomas H. Campbell
LEWIS & ROCA
40 N. Central Avenue
Phoenix, AZ 85007

Thomas F. Dixon, Jr.
MCI WORLDCOM
707 17th Street
Denver, CO 80202

Eric S. Heath, Esq.
SPRINT COMMUNICATIONS CO., L.P.
100 Spear Street, Suite 930
San Mateo, CA 94404-2467

Scott S. Wakefield
RUCO
2828 N. Central Avenue, Suite 1200
Phoenix, AZ 85004

Timothy Peters
ELECTRIC LIGHTWAVE, INC.
4400 NE 77th Avenue
Vancouver, WA 98668

1 Kath Thomas
2 Advanced Telecom Group, Inc.
3 100 Stoney Point Road, Suite 130
4 Santa Rosa, CA 95401

5 Douglas Hsiao
6 RHYTHMS LINKS, INC.
7 6933 S. Revere Pkwy.
8 Englewood, CO 80112

9 NEW EDGE NETWORKS
10 P.O. Box 5159
11 3000 Columbia House Blvd.
12 Vancouver, WA 98668

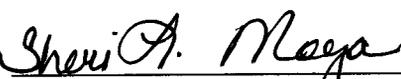
13 Andrea Harris, Sr. Mgr.
14 ALLEGIANCE TELECOM INC. OF AZ
15 2101 Webster, Suite 1580
16 Oakland, CA 94612

17 K. Megan Doberneck
18 COVAD COMMUNICATIONS
19 4250 Burton Street
20 Santa Clara, CA 95054

21 Traci Grundon
22 DAVIS, WRIGHT TREMAINE L.L.P.
23 1300 S.W. Fifth Avenue
24 Portland, OR 97201
25 Attorneys for Nextlink, Inc., & ATG, Inc.

26 Marti Allbright, Esq.
27 Mpower Communications Corp.
28 5711 South Benton Circle
Littleton, Colorado 80123

Dennis D. Ahlers, Sr. Attorney
Eschelon Telecom, Inc.
730 Second Ave. South, Ste 1200
Minneapolis, MN 55402

29 
30 Assistant to Maureen A. Scott

Janet Livengood, Reg. VP
Z-Tel
601 S. Harbour Is. Blvd.
Tampa, FL 33602

Michael B. Hazzard
Kelley Drye & Warren LLP
1200 - 19th St., NW 5th Fl.
WA DC 20036

Ray Heyman
Roshka-Heyman & DeWulf
400 N. Fifth St., Suite 1000
Phoenix, AZ 85004
Attorneys for Alltel Communications

Mark J. Trierweiler
Vice President - Government Affairs
AT&T
111 West Monroe, Suite 1201
Phoenix, AZ 85003

Kevin Chapman
Director-Regulatory Relations
SBC Telecom, Inc.
5800 Northwest Parkway
Suite 125, Room 1-S-20
San Antonio, TX 78249

Thomas H. Campbell
LEWIS & ROCA
40 N. Central Avenue
Phoenix, Az 85004

Brian Thomas, Vice-President Regulatory-
West
Time Warner Telecom, Inc.
520 S.W. 6th Avenue, Suite 300
Portland, Oregon 97204

EXECUTIVE SUMMARY
DIRECT TESTIMONY OF
WILLIAM DUNKEL
DOCKET NO. T-00000A-00-0194

I have participated in over 130 state telephone regulatory proceedings before over one-half of the state commissions in the United States. I have been participating in telephone regulatory proceedings for over 20 years.

I recommend the following unbundled loop rates:

	<u>Including Sold Exchanges</u>	<u>Excluding Sold Exchanges</u>
Zone 1	\$ 9.35	\$ 9.35
Zone 2	\$14.57	\$14.20
Zone 3	<u>\$43.80</u>	<u>\$36.34</u>
Statewide average	\$13.22	\$11.89

Additional details and costs by wire center are shown on Schedules WD-14 and WD-15.

I recommend the rates "excluding" the sold exchanges be utilized. The above rates include 15% for common costs (including common overhead, directly assigned, and directly attributed). My recommendation for the unbundled loop rates utilized the Hatfield model with the inputs that the ACC and FCC have adopted. The Hatfield model is the model that the ACC utilized in Decision No. 60635. In addition, the ACC adopted various inputs in that Decision. For those inputs that were not addressed in the ACC Decision, I used the inputs that the FCC adopted in its Order FCC 99-304.

These and the other rates I recommend are shown on Schedule WD-8.

My analysis determined that the Qwest calculated costs to provide collocation and line sharing services to the CLECs were overstated. For example:

- The Qwest claimed "actual" costs for collocation jobs were based upon labor rates of a vendor that actually did no work on those jobs.
- For installing a certain type of cable, Qwest used a "actual" cost of **\$ ** per foot. However, it costs ** ** per foot for Qwest installers to install this cable. (** ** per foot if overtime and administrative costs are included.)
- Schedule WD-1 shows that the installation costs using the Qwest installers (QTI) are a tiny fraction of the costs that Qwest claims to be the "actual" costs. The Qwest installers do most of the installations.
- In Qwest's study of the cost of providing service to CLECs, a specific piece of equipment had a claimed material cost of ** **. However, that same item had a

material cost of ** ** in a Qwest study of the cost of providing Qwest's xDSL service. (See Schedules WD-3 and WD-4)

- Qwest's "engineering" cost included the cost of a "field survey." However, Qwest's personnel in its Phoenix central office stated that the engineers are located in Denver, and generally do not conduct a "field survey." Instead, they have detailed electronic drawings similar to "blueprints", on which they draw in the new facilities. Those documents are then forwarded to the installation personnel in Arizona for installation.
- Qwest proposes an "engineering fee" that includes the cost of engineering a bay. However, Qwest proposes to charge this fee whenever a CLEC wishes to use even one or a few shelves in a bay. There are eight shelves in one bay.
- Qwest's claimed costs of providing a bay to a CLEC include costs for "aerial support", "cable racking" and "lighting fixtures". However, Qwest's cost study for Qwest DSL services does not include any of these costs. (Schedules WD-3 and WD-4) My analysis does include reasonable costs for such items, but this shows the inconsistency of Qwest's cost studies.
- The depreciation rates that Qwest applied to land and buildings to calculate the CLEC's "rent" were not the ACC approved depreciation rates for land and buildings. Instead, Qwest applied the depreciation rates for electronic equipment, which results in a depreciation expense that is ** ** the depreciation expense calculated using the ACC approved depreciation rates for the land and building accounts. (See Schedules WD-5 and WD-6)

My analysis determined that the overhead expenses of Qwest were overstated. For example,

- In calculating the "rent", Qwest first calculated the investment in central office land and buildings, and then inflated that by a factor for central office land and buildings. (See Schedule WD-5)
- Qwest calculated a "product management" factor that was designed to be applied to just a small fraction of the "direct" costs of providing service. However, Qwest applied that product management factor to the full "direct" costs of providing service, resulting in greatly overstating the product management expense. (Schedules WD-5 and WD-7)
- In Decision No. 60635, the ACC selected a 15% overhead factor. This was not remanded. I recommend that the 15% overhead factor be used in this proceeding. This includes what Qwest calls directly attributed, directly assigned, and common costs.

A maintenance factor can be calculated by dividing the annual maintenance expense by the "book" investment. This is a factor that can be properly applied to "book" investment figures. A different maintenance factor is calculated if you divide the annual maintenance expense by the "current" investment (which is the investment if current prices were paid). This gives a maintenance factor that is appropriately applied to "current" investment figures. For many accounts, Qwest calculated the factor based upon "book" investments, but applied that factor to "current" investments.

In its cost models, Qwest used a 10.37% cost of money and associated capital structure which was based upon the ACC's 1998 Order in the prior UNE proceeding, Docket No.

U-3021-96-448 et al. AT&T/XO/Worldcom used a 9.61% overall cost of money and associated capital structure from the Commission's March 30, 2001 decision in the recent general rate proceeding, Decision No. 63487. In the cost of money factors used in my analyses, I utilized the more recent 9.61% overall cost of money from the Staff testimonies and ACC Decision No. 63487, and the associated capital structure.

Qwest treats its affiliated xDSL provider, Broadband Services Inc. (BSI), much differently than it treats unaffiliated xDSL providers. For example,

- Qwest proposes a \$2.74 recurring per line per month charge for modifying its operational support systems (OSS) for a "long term" solution to line sharing. This charge would apply to unaffiliated xDSL providers. However, it would not apply to Qwest's affiliate DSL provider, BSI, in spite of the fact that BSI does utilize line sharing.
- If the line sharing OSS cost is collected in a charge that applies to all line sharing xDSL providers, including the Qwest affiliate (BSI), a charge of \$0.10 per shared line per month will recover the costs. This is my recommendation.
- Unaffiliated xDSL providers must pay Qwest numerous collocation charges. (See Schedule WD-11) However, Qwest's xDSL affiliate does not pay the charges on this list, but instead has a very simple charge that it pays for collocation, as shown on page 3 of Schedule WD-10.
- In general, I recommend that the tariff charges for a particular service that apply to the unaffiliated xDSL providers should also apply to the Qwest affiliated xDSL provider.

Qwest proposes a \$5.00 per line monthly line sharing loop charge, which is a line sharing charge equal to approximately 20% of the Qwest calculated unbundled loop cost. Twenty percent of the statewide average unbundled loop rate of \$11.89 that I propose is \$2.38, which is my recommendation for the line sharing loop charge.

The Qwest loop cost model does not include reasonable cable placement costs. Qwest assumed that ** ** of the length of the distribution cables would have to be placed by the expensive placement methods of boring, cutting and restoring concrete, and cutting and restoring asphalt. This is an unrealistic assumption. When a new residential subdivision is being developed, Qwest normally installs buried distribution cables prior to the time that the surface obstructions (i.e. roads, sidewalks, driveways, lawns, etc.) are in place. The developer frequently provides the trench at no cost to Qwest. The ACC rejected similar Qwest placement cost claims in Decision No. 60635.

It is important to recognize that the loop facility cost is not "caused" by just basic exchange service. Even a Qwest witness acknowledges that the cost of a loop facility is at least partially caused by the high frequency portion of the loop (HFPL).

The FCC has declared that it has jurisdiction over ISP bound traffic. Therefore, the ACC does not set the rates for ISP bound traffic. However, the FCC order also appears to try to take control of local interconnection traffic that is not ISP bound. For purposes of this proceeding, the ACC should set the appropriate rates for the non-ISP bound local interconnection traffic.

Qwest proposes that there be a separate UNE charge for each vertical service. Currently in Arizona the switching "port" charge includes the vertical features provided by the switch. I recommend this treatment continue.

In the Jennings proceeding, the Court required the Commission to "at least consider the range of cost savings for different categories of service." The Court expressed "no opinion regarding the proper result on remand." In addition, "Whether the ACC has, or can even obtain, the information needed to more accurately identify the cost savings attributable to various services will also be a factor in deciding whether to establish additional discount rates." I addressed this issue including:

- The required detailed avoided cost information is not available by product or major product group. Much of the Qwest analysis was based on "managerial judgment."
- The Jennings ruling in no way required that the overall discount be reduced, but the Qwest proposal would reduce the current average composite discount, which is
** ** down to an average discount of 10.46%.
- The existing discount in Arizona is 12% for residential basic exchange service, and 18% for virtually all other services. The majority of the Qwest jurisdictions have only one or two different discount categories.
- Qwest has claimed that seven other states had relied upon the Qwest study. However, a review of the percent discounts that resulted from those Orders, and a review of the wording from a Washington Order indicates that those other states did not rely on the studies similar to what Qwest has filed in this proceeding. In the seven other states that Ms. Gude claims relied on Qwest's study, the avoided cost discount for residential basic exchange service adopted by the commissions averaged 14.9%, whereas the avoided cost study that Ms. Gude has filed in this proceeding alleges a 4.19% discount for residential basic exchange service.
- Section 252(d)(3) of the TA96 requires that the calculation of the wholesale rates must be the "retail rates" less "avoided cost". However, instead of properly using the rates or revenues in the denominator, Ms. Gude used "total operating costs" in the denominator. This is in violation of the TA96 requirements. Using total costs in the denominator instead of rates or revenues has been properly rejected by the ACC and other commissions in the past.
- I recommend that the current discount of 12% for residential basic exchange service, and 18% for virtually all other services continue. I have provided the information needed to consider other discounts as required by the Court.

Some of the collocation and other rates which I recommend on schedule WD-8 are based upon the rebuttable presumption that the appropriate rate is 42% of the Qwest proposed rate based upon my analysis.

My testimony addresses numerous other items that were remanded by the Court, or otherwise placed at issue in this proceeding.

I recommend that the rates shown in Column 5 on Schedule WD-8 be adopted. These are the rates that are consistent with the ACC and FCC ordered inputs, and are consistent with the various applicable requirements, including the requirements of TA96.

BEFORE THE
ARIZONA CORPORATION COMMISSION

IN THE MATTER OF INVESTIGATION)
INTO QWEST CORPORATIONS')
COMPLIANCE WITH CERTAIN WHOLESALE)
PRICING REQUIREMENTS FOR) DOCKET NO. T-00000A-00-0194
UNBUNDLED NETWORK ELEMENTS)
AND RESALE DISCOUNTS)

DIRECT TESTIMONY AND SCHEDULES

OF

WILLIAM DUNKEL

ON BEHALF OF

THE STAFF OF THE ARIZONA CORPORATION COMMISSION

JUNE, 2001

PUBLIC COPY

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WILLIAM DUNKEL
DOCKET NO. T-00000A-00-0194

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1 **I. STATEMENT OF QUALIFICATIONS AND INTRODUCTION**

2

3 Q. PLEASE STATE YOUR NAME AND YOUR BUSINESS ADDRESS.

4 A. My name is William Dunkel. My business address is 8625 Farmington Cemetery Road,
5 Pleasant Plains, Illinois 62677.

6

7 Q. WHAT IS YOUR PRESENT OCCUPATION?

8 A. I am a consultant providing services in telephone rate proceedings. I am the principal of
9 William Dunkel and Associates, which was established in 1980. Since that time, I have
10 regularly provided consulting services in telephone regulatory proceedings throughout
11 the country. I have participated in over 130 state regulatory telephone proceedings before
12 over one-half of the state commission in the United States, as shown on Appendix A
13 attached hereto. I have participated in telephone regulatory proceedings for over 20
14 years.

15

16 I currently provide, or in the past have provided, services in telecommunications
17 proceedings to the following clients:

18

The Public Utility Commission or the Staffs in the States of:

19

20

Arkansas	Missouri
Arizona	New Mexico
Delaware	U.S. Virgin Islands
Georgia	Utah
Guam	Virginia
Illinois	Washington
Maryland	Kansas
Mississippi	

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The Office of the Public Advocate, or its equivalent, in the States of:

1 Colorado Missouri
2 District of Columbia New Jersey
3 Georgia New Mexico
4 Hawaii Ohio
5 Illinois Oklahoma
6 Indiana Pennsylvania
7 Iowa Utah
8 Maine Washington
9 Florida

10
11 The Department of Administration in the States of:

12
13 Illinois South Dakota
14 Minnesota Wisconsin
15
16

17 Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

18 A. I am testifying on behalf of the Staff of the Arizona Corporation Commission (ACC).

19

20 Q. HAVE YOU PREVIOUSLY PARTICIPATED IN ANY PROCEEDINGS IN
21 ARIZONA?

22 A. Yes. I filed testimony on behalf of the Arizona Corporation Commission Staff in the
23 general rate case, Docket No. T-01051B-99-0105. I also filed rebuttal testimony in
24 Docket No. T-01051B-97-0689 on behalf of the ACC Staff regarding depreciation. In
25 addition, I conducted a Cost of Service Study on behalf of the Staff of the Arizona
26 Corporation Commission in an undocketed matter preparing a cost study pertaining to
27 Qwest Corporation (formerly US West Communications (USWC)). I was a rate design
28 witness in general rate case, Docket No. E-1051-93-183, involving USWC on behalf of
29 the ACC Staff.

30

31 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

32 A. The purpose of my testimony is to address the issues that the Commission ordered be
33 incorporated into this proceeding. I also respond to various testimonies of other parties.

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There are a large number of issues in this proceeding. The issues to be addressed in this case include:

- Four wire loop price
- Customer transfer charge
- Unbundled subloops (Bonafide Request (BFR) process)
- Single Point of Interconnection
- Forced recombination of elements (Unbundled Network Elements-Platform (UNE-P))
- Review of current rates for UNEs and interconnections
- Address the need to establish additional resale discount rates
- Non-recurring charges
- Obligation to exercise eminent domain
- Paragraph 16.1.1 (special equipment)
- Location of Remote Switching Units (RSUs)
- Line Sharing and associated issues
- Recurring and non-recurring charges for purchasing combined network elements
- Most favored nation clause
- Inter-carrier reciprocal compensation structure
- Appropriate compensation mechanism for Internet service providers (ISPs)
- Permanent geographically deaveraged UNEs

Certain issues have been referred to this case from the "271" case, Docket No. T-00000A-97-0238.¹

Q. COULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?

A. The summary of my testimony is included in the Executive Summary.

1
2
II. OVERVIEW

3 Q. BEFORE GETTING INTO THE DETAILS, COULD YOU PLEASE PROVIDE AN
4 OVERVIEW TO HELP IDENTIFY THE SIGNIFICANCE OF THE ISSUES BEING
5 ADDRESSED IN THIS PROCEEDING?

6 A. Yes. One of the major goals of the Telecommunications Act of 1996 (TA96) was to
7 establish competition for local telecommunications services. The Act contained a
8 number of provisions that were intended to stimulate this competition. A number of
9 competitive local exchange carriers (CLECs) have attempted to enter the competitive
10 markets, and investors have invested a huge amount of money in stocks of those CLECs.
11 However, the extent of local competition that resulted has been very low. In Arizona, as
12 of December 31, 2000, only 5% of the access lines are provided by CLECs.

13
14 Q. WHAT IS A KEY CHARACTERISTIC ABOUT MOST OF THE COST STUDIES
15 PROVIDED IN THIS PROCEEDING?

16 A. The study results are generally very dependent on assumptions or inputs that require
17 some judgement. As a result, different knowledgeable people can arrive at different
18 claimed "costs" for the same service. For example, many of these cost studies are total
19 element long run incremental cost (TELRIC)-based studies. The TELRIC studies are not
20 intended to be a determination of the cost based upon studying the actual records of the
21 company. Instead they are intended to be "forward looking" studies that are based upon
22 expected costs on a forward looking basis for an efficient producer, using current

¹ I am not a participant in that "271" case. However, Staff participated in that case, and has provided information on issues which have been referred to this case from the "271" case.

1 commercially available technology. The determination of many of the inputs is based
2 upon the judgments and opinions of the parties preparing such a study.²

3
4 The cost studies for even one rate element are generally huge and complex, if all of the
5 related studies and supporting workpapers are examined.

6
7 Q. WHAT ARE THE FINANCIAL INCENTIVES TO AN LEC WHEN IT COMES TO
8 PROVIDING UNES, COLLOCATION, OR INTERCONNECTION SERVICES?

9 A. It is in the LEC's interest to make the charges for UNEs, collocation, and interconnection
10 as high as possible. This is true because the costs that the LECs incur, or supposedly
11 incur, for UNEs, collocation, and interconnection are costs that are billable to their
12 competitors. Therefore, if these costs are high, that raises their competitors' cost of doing
13 business. It does not raise the LECs' cost of doing business. As the FCC stated in a
14 recent Order:

15 In the NPRM, we suggest that, given the opportunity, carriers always prefer to
16 recover their costs from other carriers rather than their own end users in order to
17 gain competitive advantage.³

18
19 **III. THE QWEST CLAIMED "ACTUAL" COLLOCATION COSTS**
20 **ARE NOT "ACTUAL"**

21
22 Q. WHAT IS COLLOCATION?

23 A. Collocation refers to a CLEC locating its facilities within an LEC's central office.

24

² See U.S. District Court for the District of Arizona in *US West vs. Jennings* (46F.Supp. 2d 1004, , May 4, 1999).

³ Page 4, FCC Order 01-131, April 27, 2001.

1 Q. QWEST CLAIMS,

2 The direct costs for the bulk of the collocation cost elements are calculated based
3 on inputs derived from an analysis of the cost of *actual collocation jobs* in Qwest
4 central offices. (Emphasis in original)⁴
5

6 ARE THE COSTS QWEST USED THE “ACTUAL” COSTS?

7 A. No. In discovery, I asked if the labor rate used in the Company’s “actual” collocation
8 costs were the costs actually incurred. They were not. In discovery, regarding the labor
9 rate used in the study, the Company stated :

10 This labor rate is the contract rate Qwest has with a vendor for power installation
11 work.
12

13 However, this vendor

14
15 ...did not do any of this ‘power and grounding feeder’ work.⁵
16

17

18 **IV. THE INSTALLATION COSTS USED IN THE SO-CALLED**
19 **“ACTUAL” STUDIES ARE SEVERAL TIMES**
20 **THE ACTUAL INSTALLATION COSTS**
21

22 Q. WHO PERFORMS THE MAJORITY OF THE COLLOCATION INSTALLATION
23 FUNCTIONS?

24 A. During our visit to the Qwest Phoenix Main central office, the Company personnel
25 informed us that the Qwest installation organization, which is known as Qwest
26 Technologies Installation (“QTI”), performed most of the installations of the collocation
27 facilities.⁶

⁴ P. 86, Million Direct.

⁵ Qwest response to ACC Request WD 06-148a.

⁶ Donna McCoy-Shay, QTI Manager; and John Lawrence, State Interconnect Manager-Arizona and New Mexico.

1

2 Q. IS THERE A HUGE DIFFERENCE BETWEEN THE QTI AND THE "VENDOR"
3 PRICES QWEST SELECTED FOR USE IN ITS STUDY?

4 A. Yes. For example, Qwest documents show that QTI's costs to install a certain size power
5 cable is ** ** per foot⁷, whereas the vendors price to do the same installation is
6 **\$ ** per foot for one vendor, or ** ** per foot for a different vendor.⁸

7

8 Q. WHAT IS SCHEDULE WD-1?

9 A. Schedule WD-1 is a document that Qwest provided in discovery which shows the both
10 the QTI costs and "vendor" costs for various installations. On page 3 of that Schedule,
11 the line which I have marked shows that the QTI cost to "Run and secure" a certain size
12 power cable is ** ** per foot, where as Vendor 1's price is ** **, and Vendor
13 2's price is ** ** per foot. The vendor prices are ** ** times the QTI
14 cost for the same installation.

15

16 Q. WHAT COST DID QWEST USE IN CALCULATING THE ALLEGED "ACTUAL"
17 COSTS FOR THE "ACTUAL" COLLOCATION INSTALLATIONS?

18 A. Qwest used the ** ** labor rate shown on that same line. This labor rate assumed
19 that ** ** of the installations were performed by QTI, and ** ** were performed
20 by the vendors. This assumption, when weighted for ** ** overtime and a ** **
21 loading factor, results in the ** ** figure shown in the last column on the line I have

⁷ In its calculation, the Company assumed ** ** of the work would be at overtime rates, and added a
** ** administrative overhead. Even if these same assumptions applied to the QTI rate of ** **, the result is a QTI rate with overtime and administrative costs of ** ** per foot, not the ** ** per foot cost used in the Company's study. Quite simply, the installation cost used in the Company study is over

1 marked on page 3 of Schedule WD-1. It is this ** ** per foot figure that Qwest
2 used as being the alleged "actual" costs of these "actual" collocation installations. As
3 previously discussed, this price is based on a ** ** weighting of the vendor prices,
4 even if the vendor actually did not perform the installations (or did not perform ** **
5 of the installations). Therefore, this cost does not in any way reflect the "actual" cost.

6
7 Q. CAN YOU DEMONSTRATE THAT THE ABOVE REFERENCED ** ** PER
8 FOOT COST IS THE COST THAT THE COMPANY USED IN PRICING OUT THEIR
9 SO-CALLED "ACTUAL" COLLOCATION JOBS?

10 A. Yes. Schedule WD-2 is a page from Qwest's "Arizona Collocation" study showing what
11 Qwest alleges were costs "averaged for 5 actual sites." The bottom of page 2 of this
12 Schedule shows some of the costs that Qwest used to calculate the alleged costs for these
13 "5 actual sites." I have marked the line which shows the use of the ** ** per foot
14 cost that came from Schedule WD-1 that I previously discussed.⁹

15
16 Q. IS THE USE OF A COST THAT IS BASED ** ** ON HIGH "VENDOR" PRICES
17 REASONABLE FOR USE IN THIS PROCEEDING?

** ** the actual QTI installation cost.

⁸ All figures are before overtime and before administrative loadings.

⁹ To help follow the calculations on this Schedule, the third column contains the costs of installation if installed by the Qwest affiliate, QTI. The fourth column is the weighted average of Vendor 1 and Vendor 2, with Vendor 1 getting a ** ** weight, and Vendor 2 getting a ** ** weight. Column 5 is a weighting of ** ** from the QTI column, and ** ** from the Vendor column (Column 4). This effectively assumes that QTI does ** ** of the installations. Column 6 is the figure in Column 5 inflated by ** ** to be the overtime rate. Column 7 is calculated by weighting the overtime rate in Column 6 by ** **, and the non-overtime rate from Column 5 by ** **. Column 8 is Column 7 increased by ** ** for administrative costs.

1 A. No. First of all, as previously discussed, some of the vendor prices that Qwest used are
2 vendors that "did not do any of" the work.¹⁰

3

4 In addition, the TELRIC methodology assumes the efficient provision of services.

5 Only forward-looking, incremental costs shall be included in a TELRIC study.
6 Costs must be based on the incumbent LEC's existing wire center locations and
7 most efficient technology available.¹¹

8

9 Including installation costs that are ** ** times the cost that you can actually
10 have the facility installed for is not the efficient provision of service, and therefore
11 violates the TELRIC principles. The standard Qwest is effectively using is a cost that is
12 several times the "most efficient" provider cost, which is not the correct standard.

13

14 Q. IS QWEST'S USE OF A COST THAT IS SEVERAL TIMES THE ACTUAL QTI
15 COST LIMITED TO THE ONE ITEM DISCUSSED ABOVE?

16 A. No. If you look at Schedule WD-1, you will see that the QTI cost is a fraction of the
17 "vendor" cost for most items, with the QTI price frequently being in the range of **
18 ** the "vendor" price. The Qwest cost calculation which is based on a
19 ** ** weighting of the vendor prices, greatly overstates the "most efficient" costs. In
20 general, the installation cost that the Company has used in its study should be cut in one-
21 half as a minimum, with a reduction greater than one-half being reasonable, as can be
22 seen from looking at Schedule WD-1.

23

24

¹⁰ Qwest response to ACC Request WD 06-148a.

¹¹ Paragraph 690, FCC 96-325, CC Docket No. 96-98 Released August 8, 1996 ("Interconnection" Order).

1 **V. QWEST ALSO OVERSTATED THE MATERIAL COSTS**
2 **IN ITS STUDY OF SERVICE TO CLECS**
3

4 Q. QWEST HAS PROPOSED A NUMBER OF NON-RECURRING CHARGES FOR
5 VARIOUS SPLITTER CONFIGURATIONS.¹² QWEST HAS BASED THESE NON-
6 RECURRING CHARGES ON ITS CALCULATION OF THE COSTS OF VARIOUS
7 EQUIPMENT. ARE THE COSTS QWEST USED TO CALCULATE THE CHARGE
8 TO CLECS CONSISTENT WITH QWEST'S COST CALCULATION FOR QWEST'S
9 OWN XDSL SERVICES?

10 A. No. I have compared the cost in Qwest's CLEC splitter cost study to Qwest's study of
11 the cost of providing Qwest's own DSL service. Qwest's claimed cost of facilities is
12 much higher in the cost study that applies to the CLECs, than in Qwest's own cost study
13 for its own DSL services.

14
15 The FCC requires that Qwest xDSL services cover all of their costs, including an imputed
16 charge for sharing the loop.¹³ Because of this requirement, Qwest has prepared a cost
17 study showing what it costs to provide Qwest's own DSL services. Some of Qwest's
18 DSL equipment is located in bays in the central office, the same as the CLEC's
19 collocated splitter equipment is located in bays in the Qwest central offices. However,
20 the costs for facilities in the Qwest CLEC splitter cost study are much higher than the
21 cost for the same facilities in the cost study of Qwest DSL service.

22

¹² Arnold Direct, Exhibit MA-1A, pp. 8-9.

¹³ Qwest response to ACC Request WD 04-108.

1 For example, in the Qwest "line sharing" study that applies to CLECs, Qwest claimed
2 that "89-100" blocks have a material cost of ** ** each.¹⁴ However, in the Qwest
3 study of Qwest's DSL service, those same blocks have a material cost of ** ** each,
4 almost half of what the same blocks cost in the Qwest Collocation study for CLECs.

5
6 Q. WHAT IS SCHEDULE WD-3?

7 A. Schedule WD-3 contains workpapers that the Company provided in response to ACC
8 Request WD 06-150, which show the costs the Company used in calculating the cost of
9 its own DSL services. On page 3 of this document, I have marked where the "89-100"
10 block has a material cost of ** ** per block.

11
12 Q. WHAT IS SCHEDULE WD-4?

13 A. Schedule WD-4 contains some pages from the Qwest Collocation study filed in this
14 proceeding on which Qwest calculated the cost it alleges is caused by CLEC line sharing.
15 The top three lines on page 2 show the cost of the same "89-100" blocks, with a claimed
16 material cost for one block of ** **. ¹⁵ Quite simply, a block that costs ** **
17 when the Company is performing a study of its cost to provide its own DSL service costs
18 ** **¹⁶ when performing a study of what it costs to provide line sharing to
19 competitive DSL companies.

20
21 Q. WHAT IS A "BLOCK?"

¹⁴This does not include the ** ** labor required to mount the block.

¹⁵ Plus labor to install the block of ** **.

¹⁶ It should be noted that on page 2 of Schedule WD-4 the cost of ** ** is before the Company loads the cost for such things as land and buildings, product management, etc.

1 A. A "block" is a device that is used to connect or terminate wires.

2

3 Q. WHAT OTHER INTERESTING COMPARISONS EXIST BETWEEN THE COST OF
4 A "BAY" AS QWEST USES IT FOR ITS OWN DSL SERVICE COMPARED TO THE
5 COST OF THE "BAY" QWEST INCLUDES IN THE COST IN THE CLEC'S LINE
6 SPLITTER COST STUDY?

7 A. A "bay" is a metal rack on which electronic equipment can be mounted. Many of the
8 costs included in the cost for a "bay" to be used by CLECs do not even appear as costs in
9 the cost for a "bay" to be used by Qwest DSL services. Page 3 of Schedule WD-4 is a
10 copy of a page from the Qwest cost study in this proceeding showing Qwest's calculation
11 of the cost of the bay on which a CLECs line splitter would be mounted. The first line on
12 the top of page 3 under Bay Construction is "Aerial Support." This has a cost per bay of
13 ** **.

14 However, referring back to Schedule WD-3, which includes the cost of a
15 bay for Qwest DSL service, there is no listing for the cost of any material for "aerial
16 support."

16

17 The third item on the Qwest Splitter Bay cost study is "Cable Racking", which has a cost
18 of ** ** per bay, as shown on page 3 of Schedule WD-4. This is the second most
19 expensive part of the CLEC "bay" cost. However, in the Qwest DSL study, there is no
20 "cable racking" material listed, as is shown on Schedule WD-3. The second most
21 expensive item that appears in the cost of a bay for a CLEC does not even appear as a
22 cost of a bay for Qwest DSL service.

23

1 The fifth item in Qwest splitter bay cost study for CLECs is the addition of lighting
2 fixtures, as is shown on page 3 of Schedule WD-4. However, no lighting fixture costs
3 appear in the cost of the Qwest DSL service, which is Schedule WD-3.

4
5 In short, in calculating the cost of a bay to be used by a CLEC's xDSL equipment, Qwest
6 includes many costs that it does not include when calculating the cost of a bay to be used
7 by Qwest xDSL equipment, including cable racking, aerial support, and additional
8 lighting fixtures.

9
10 After discussing the overhead factors and some of the other factors that go into the total
11 rate, I will use the above information as part of determining the corrected line splitter
12 rates that I propose.

13 **VI. OVERHEAD COSTS**

14
15
16 Q. WHAT ARE YOU DESCRIBING AS OVERHEAD COSTS?

17 A. In this discussion, by "overhead costs", I am referring to those costs other than the direct
18 investment-related expenses. Virtually all studies include the direct investment related
19 expenses of (1) cost of capital, (2) depreciation, (3) income tax expense, (4) maintenance,
20 and (5) ad valorem taxes. However, the number and amount of "overhead" expenses to
21 be considered in addition to these five direct expenses is a matter of debate.

1 In the "Qwest Collocation: Line Sharing Study," the various overhead factors increased
2 the expense a total of 38% over the direct expense.¹⁷

3
4 Q. ARE THE QWEST OVERHEAD FACTORS REASONABLE?

5 A. No. Attached as Schedule WD-5 are pages from the Qwest Collocation Study in which
6 they calculate the rent expense for line sharing. The first line of page 2 of this Schedule
7 is the investment in the central office land and buildings on which Qwest bases the rent
8 expense. However, five lines below that, Qwest increases this investment for loading
9 factors that are for the "central office equipment (COE) Land and Building" investment.
10 On the 16th and 17th lines on this sheet, you can see additional loadings for COE Land
11 and Building costs. Qwest is improperly loading the COE land and building investments
12 on top of the investment in COE land and buildings. This is improper recovery.

13
14 On that same sheet, on the second line, you can see that the Company increased the
15 investment with a loading for "power." However, Qwest directly charges the CLECs for
16 power, when the CLECs utilize power. However, the line splitters of the CLEC are not
17 powered. Therefore, to load power into the rent when they are already directly paying for
18 that power, if they use it, is a double recovery. The power factor Qwest used is not some
19 minor factor that reflects only lights, convenience outlets, etc.¹⁸

¹⁷ Depreciation, cost of money, income tax expense, maintenance, and ad valorem tax are the direct expenses.

¹⁸ Qwest goes through a calculation which makes it appear that they have adjusted for the direct expense, but they have not fully adjusted. This can be illustrated by an example. Assume ten people went to dinner together, each buying a \$10 dinner. The total tip was \$15. Using Qwest's method, Qwest would charge the CLEC (whose dinner was \$10), \$1.50, as a direct cost of the tip. Qwest would then take the \$15 total tip minus the \$1.50 direct, and get \$13.50 remaining tip. Qwest would then divide that by the total \$100, getting a factor of 13.5%, which it would then also apply to the CLEC's \$10 bill, creating an additional charge to the CLEC of \$1.35. In short, the CLEC would end up paying all of its share of the "tip," plus a

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Q. REFERRING TO SCHEDULE WD-5, IS THE DEPRECIATION EXPENSE
CALCULATION ON THAT SCHEDULE ACCURATE?

A. No. The depreciation factor of ** that Qwest applied to the (COE) land and building investment is not the land and building depreciation factor. Instead, it is the depreciation factor for digital equipment. Attached as Schedule WD-6 is Qwest's own calculation of the depreciation factors. As can be seen, the ** factor is the depreciation factor for "pair gain-digital" equipment and "other digital equipment." The depreciation factor for land is zero, and for buildings is **. The weighted average depreciation factor for land and buildings is **. ¹⁹ Going back to Schedule WD-5, the depreciation factor of ** Qwest has applied to land and buildings is simply not the land and buildings depreciation factor. It is a digital equipment factor which is ** the weighted land and building depreciation factor. Therefore, the depreciation expense Qwest has included in rent is ** the correctly calculated depreciation expense for COE land and buildings.

All of the parties in this proceeding are using the depreciation lives and other factors as determined by the ACC in its recent depreciation proceeding. The issue discussed above

portion of everyone else's tip. This is similar to the math that Qwest applies to the CLECs for those items for which the CLECs are directly charged.
¹⁹ Using Qwest's depreciation factors weighted by the relative land and building investments. End of year 1999 land investment of ** and building investment of ** from "Investment and Capital Costs" tab of Qwest's "Expense Factor Module.xls."

1 is that Qwest improperly applied the depreciation factor for one type of investment to an
2 entirely different investment category.²⁰

3
4 Q. DOES QWEST'S SIGNIFICANT MISCALCULATION OF THE DEPRECIATION
5 EXPENSE EFFECT THE CALCULATION OF THE OVERHEAD EXPENSES THAT
6 FOLLOW IT ON SCHEDULE WD-5?

7 A. Yes. The overhead cost amounts, such as the "directly assigned" costs, are based upon
8 the "total investment based monthly cost" figure. For example, the calculation of the
9 ** ** amount for "product management expense" is calculated by applying the
10 "product management" factor to the "total investment based monthly cost" of
11 ** **. Since the **\$ ** is inflated by the miscalculation of the depreciation
12 expense, the calculation of the product management expense is also inflated.

13
14 Q. WHAT IS ANOTHER PROBLEM WITH THE COMPANY'S OVERHEAD
15 FACTORS?

16 A. Referring back to Schedule WD-5, you can see the Company is using a "product
17 management" expense factor of ** **. They are calculating the "product
18 management" expense by applying that factor to the "total investment based monthly
19 cost" of **\$ **. This is a misapplication of this factor. This factor was not
20 developed to be applied to the total direct cost. This factor was developed to be applied
21 to only a tiny portion of the total direct cost. Therefore, by applying it to the total cost
22 greatly overstates the product management expense.

²⁰ In addition, the maintenance factor that the Company used is high. The facilities being dealt with in these studies are items such as metal racks (bays), metal aerial support braces, metal cable racks, and

1
2 Attached as Schedule WD-7 is the Company's cost study showing how it developed the
3 product management expense factor of ** **. As this shows, the denominator
4 used in this calculation was approximately ** ** expense, from a workpaper
5 in which the total expense was approximately ** **. This factor was not
6 developed to be applied to the total expenses, but was developed to be applied to a
7 number that represented only approximately ** ** of all expenses. By applying this
8 factor to the total direct expense, the resulting calculation greatly overstates the product
9 management expense.

10
11 Some intervenor witnesses, such as Mr. Farrar and Mr. Weiss, were highly critical of the
12 overhead factors used by Qwest.²¹

13
14 Q. WHAT DO YOU RECOMMEND PERTAINING TO THE OVERHEAD FACTORS?

15 A. The Qwest overhead calculations certainly are not usable as demonstrated in my
16 discussion pertaining to Schedule WD-5. In Decision No. 60635, the ACC selected a
17 15% overhead factor. This includes the attributed, joint and common overhead costs.
18 The Court in the Jennings proceeding did not remand that 15% factor.²²

19
20 I recommend that the 15% factor adopted by the Commission in Decision No. 60635 be
21 used in this proceeding. This factor should be applied to the cost that results from the

cables. It is reasonable to expect that these items would have low maintenance requirements.

²¹ For example, Mr. Farrar, on page 18 of his Direct, states that in its LEC cost studies, Sprint uses a
** ** factor for a group of overheads (that includes product management), whereas Qwest uses
factors that total ** ** for that same group of overhead expenses.

1 investment based expenses (depreciation, cost of money, income tax expense,
 2 maintenance, and ad valorem tax) in order to “load” them for a reasonable share of the
 3 other costs. This 15% factor specifically includes what Qwest calls the “directly
 4 assigned,” “directly attributed,” and “common” costs.

5
 6 **VII. GENERAL RECOMMENDATION FOR INTERCONNECTION AND**
 7 **COLLOCATION RATES**
 8

9 Q. WHAT DO YOU RECOMMEND FOR INTERCONNECTION AND COLLOCATION
 10 RATES?

11 A. Unless specifically otherwise addressed in my testimony, I recommend that the rates for
 12 most interconnection and collocation should be a maximum of 42% of the rates that
 13 Qwest proposes, as a conservative correction of Qwest’s overstatement of its costs.²³ As
 14 previously discussed, Qwest greatly overstates the installation and equipment costs
 15 (Schedules WD-1, WD-3, and WD-4). Those Qwest claimed costs should at least be cut
 16 in half. Along with this, when a 15% composite overhead factor is utilized instead of the
 17 much higher overhead factors that Qwest utilizes, the net impact results in adjusted rates
 18 that are 42% of the Qwest proposed rates, as shown below:

	(a)	(b)	(c)	(d)
	<u>Direct Cost</u>	<u>Total Effective</u>	<u>Overhead</u>	<u>Total</u>
		<u>Overhead Factor</u>	<u>((a) x (b))</u>	<u>((a) + (c))</u>
24 1. Qwest	\$100	.38	\$38	\$138
25 2. Corrected	\$50	.15	\$7.5	<u>\$57</u>

²² 46 F. Supp. 2d 1004, 6, May 4, 1999 hereinafter referred to as the Jennings Order.

²³ This applies to both recurring and non-recurring charges for all of the collocation items, including the ones in the following sections of Exhibit MA-1A, Arnold Direct: Section 7.1; 7.2; 7.3; 7.4; 7.6; 7.7; all of 8.1 Collocation except for 8.1.5; all of 8.2 Virtual Collocation, except for 8.2.2, 8.2.3, 8.2.5, and 8.2.6; 8.3; 8.4; 8.5; 8.6; 8.7; and 8.8; Sections 9.1, 9.2.5, 9.2.6, 9.2.7, 9.2.8, 9.3.2, 9.20, and 9.21.4.3.

1 Ratio of Corrected to Qwest Proposed (line 2/line 1) 42%

2
3
4
5 It should be noted that I consider this to be a minimum overall reduction.

6
7 **VIII. LINE SPLITTER NON-RECURRING CHARGES**
8
9

10 Q. WHAT IS LINE SHARING?

11 A. Line sharing allows CLECs to place a digital signal, such as for high speed Internet
12 access, on the high frequency portion of the loop (HFPL) while Qwest places the normal
13 voice telephone service on the low frequency portion of that same loop. When that loop
14 comes into the Qwest central office, a device called a "splitter" must be used to separate
15 the HFPL signal from the low frequency (voice telephone) signal. The FCC has required
16 that the major LECs make line splitting available to CLECs.²⁴ Qwest and Qwest
17 affiliates also offer DSL services that use the HFPL.²⁵ Therefore, the CLECs that utilize
18 line sharing are directly competing with the Qwest or Qwest affiliates xDSL service
19 offerings.

20
21 Line sharing is a new requirement, and therefore the rates for line sharing were not set by
22 the ACC in the 1998 proceeding.

23
24 Q. WHAT ARE DIGITAL SUBSCRIBER LINE (DSL) AND XDSL SERVICES?

²⁴ Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98 released December 9, 1999.

²⁵ Qwest Corporation offers ADSL services. A Qwest affiliate, Broadband Services Inc. (BSI), offers VDSL and other services. (Qwest response to ACC Request WD 04-101.

1 A. DSL and xDSL services are generic names for a whole family of high-speed digital
2 services that are provided over copper loops. The “x” in xDSL is simply a wild-card to
3 capture the various types of DSL services (e.g. ADSL is an acronym for “Asymmetrical”
4 DSL).

5
6 Q. WHAT ENGINEERING NON-RECURRING CHARGE DOES QWEST PROPOSE
7 FOR EACH SPLITTER JOB?

8 A. Qwest proposes an “Engineering Fee” of \$1,274.63.²⁶ This cost includes what the
9 Company claims the engineering costs are to engineer a bay and the associated cabling,
10 racks, bracing, ground wires, and associated facilities. However, the major problem is
11 that the bay will hold eight line splitters (eight “shelves”).²⁷ Qwest proposes charging the
12 non-recurring charge to every splitter installation, even if it is for only one shelf. Once a
13 bay has been installed, there is no need to reinstall that bay when a CLEC uses an
14 additional shelf in that bay. The engineering costs that the Company has calculated are
15 “per bay” engineering costs. Therefore, that full amount should not apply to a project
16 which is using a shelf or shelves in a bay which the CLEC has already paid to have
17 engineered.

18
19 Q. IS THERE AN ADDITIONAL PROBLEM WITH THE COMPANY CALCULATION?

²⁶ Arnold Direct, Exhibit MA-1A, page 9. Qwest response to ACC Request WD 02-60.

²⁷ Qwest Collocation: Line Sharing Cost Study, page 14.

1 A. Yes. Mr. Overton alleges that the engineer conducts a “field survey” for splitter
2 collocation.²⁸ Mr. Overton describes various things the engineer supposedly does during
3 this “field survey.”

4
5 However, when I and members of the ACC Staff toured the Phoenix Main central office
6 as part of the research for this proceeding, I talked to the personnel actually in charge of
7 installing the splitter bays. John Lawrence, Interconnect Manager for Arizona and New
8 Mexico, and Donna McCoy-Shay, QTI installation manager, clearly stated that the
9 engineers generally do not conduct a “field survey.” The engineers that design the
10 installation are located in Denver. John Lawrence stated that these engineers use a
11 program called “Central Office Engineering Facilities Management”, which among other
12 things contains highly detailed prints (similar to electronic blueprints) that shows the
13 location of all facilities, racks, braces, and other objects in the central offices. The
14 engineers in Denver draw in the location of the bays, racks, braces, and other facilities
15 using this program, and forward those drawings to the installation personnel in Arizona.
16 Donna McCoy-Shay stated that if they did run into a problem, for example something
17 that was physically in the office but did not appear in the drawings, they would call the
18 engineers on the telephone to work around that problem. In short, a significant portion of
19 the claimed engineering cost (the claimed cost of the “field survey”) is a cost that
20 generally does not exist.

21
22 I also am aware that Mr. Lathrop²⁹ discusses the engineering costs associated with line
23 sharing, and provided estimates for some of the functions that are different from the

²⁸ Page 33, Overton Direct; also see page 13 of Qwest Collocation: Line Sharing Cost Study.

1 estimates that Qwest had provided. Mr. Lathrop has a total of ten hours for the functions
2 associated with engineering a bay and associated facilities.³⁰

3
4 Q. WHAT DO YOU RECOMMEND?

5 A. I recommend a non-recurring line splitting engineering fee of \$560 for the order of a
6 CLEC that requires a bay. This charge effectively pays for the cost of engineering the
7 bay, associated racks, cables, shelves, braces, and other supporting facilities.³¹ For orders
8 placed at a later time that require Qwest to install additional cables or similar activities, to
9 allow the CLEC to utilize any or all of the remaining shelves in the bay, the engineering
10 charge should be \$120 per such subsequent "filling the bay" orders.³²

11
12 **IX. RENT**

13
14 Q. ** **³³ OUT OF THE QWEST PROPOSED \$6.33 "SPLITTER SHELF
15 CHARGE"³⁴ IS QWEST'S CALCULATION OF THE "RENT" ASSOCIATED WITH
16 THE COST OF LAND AND BUILDINGS IN THE CENTRAL OFFICE. WHAT IS
17 THE LARGEST ERROR IN QWEST'S CALCULATION OF THE RENT EXPENSE?

18 A. The largest error is the error I previously discussed, which is that Qwest was applying the
19 depreciation factor for digital equipment instead of applying the land and buildings

²⁹ Page 49, Lathrop Direct.

³⁰ In those ten hours, Mr. Lathrop did include two hours of "walk through," apparently on the assumption that such a walk through actually existed.

³¹ This includes ten hours of engineering. Other sources indicate the cables for at least 3 shelves were included. (Page 16, Qwest Collocation: Line Sharing Cost Study) In addition to engineering the construction of the bay and associated facilities, this includes a 15% overhead markup. (15% is what the Commission approved in Decision No. 60635, p. 13).

³² This includes two hours of engineering plus 15% overhead.

³³ Page 14, Qwest Collocation: Line Sharing Cost Study.

1 depreciation rates. This correction alone greatly reduces the claimed rent expense. In
2 addition, as previously discussed, the Company was charging land and building factors
3 on top of the cost of the land and buildings.

4
5 One factor in the Company's calculation of the rent is that the Company used the
6 "reconstruction cost new" for buildings. The Company's actual investment in the actual
7 buildings is less than ** ** the investment that would be required to reconstruct these
8 buildings today. Although the rent is calculated on investment that is much larger than
9 the investment that actually exists, I did not adjust the investment down. In its testimony,
10 AT&T/XO/Worldcom took the position that they would accept the concept that these
11 buildings were built new, but that meant there would not be some of the problems of
12 older buildings that result in some of the other costs being higher.³⁵ For example, if built
13 new with the CLECs in mind, it is reasonable to expect that the buildings could be built
14 so that the length of the cable runs to the CLEC locations could be shorter than the
15 Company is claiming in their study. In short, if it is assumed that the buildings are built
16 new, inefficiencies that result from the existing older buildings do not have to be
17 accepted.

18
19 In fact, the investment I used is somewhat higher than the investment the Company used.
20 In calculating its rent, the Company calculated the "reconstruction cost new" for the
21 buildings, but then backed out certain costs for electrical and air conditioning. Having
22 backed them out of the rent calculations, Qwest then included them in specific

³⁴ Section 9.4.6, Arnold Exhibit MA-1A.

³⁵ Pp. 27-28, Lathrop Direct.

1 calculations for specific charges. In most cases, the amounts Qwest put back in those
2 other specific charges were much larger than the amounts they had backed out of the rent.
3 The amounts for the air conditioning, ductwork³⁶, and electrical work that the Company
4 put back in the individual charges was excessive. For example, in one of its calculations,
5 the company assumed it was running separate air conditioning ducts to each cage, but in
6 fact they do not run them. In the real world, a new building would have air conditioning
7 appropriately placed in the entire equipment room. That is what I have included in the
8 rent. Therefore, there is no need for additional air conditioning ducts to be added into
9 individual CLEC charges. In other words, when building a new building, it is assumed
10 that the whole equipment room is air conditioned, and ducts and other required
11 equipment are included in the rent charge already.

12
13 Q. HAVE YOU DEVELOPED RATES YOU PROPOSE FOR LINE SHARING?

14 A. Yes. Those rates are included on Schedule WD-8.

15
16 **X. FOR MAINTENANCE FACTORS,**
17 **QWEST USED THE "CURRENT TO BOOK" ADJUSTMENT SELECTIVELY**

18
19 Q. WHAT ARE "MAINTENANCE FACTORS"?

20 A. Maintenance factors are cost factors that are applied to investments to calculate the
21 maintenance expense.

22

³⁶ Qwest refers to this as "HVAC" air conditioning. Qwest response to Request ATT 02-103, Attachment A; Qwest Arizona Collocation Cost Model "Defaults and Overrides", Cell BM13.

1 Q. WHAT IS ONE PROBLEM WITH THE MAINTENANCE FACTORS DEVELOPED
2 BY QWEST?

3 A. Qwest only selectively used what is called the "current to book" cost adjustment. For
4 example, digital switching equipment prices have been declining. For this declining cost
5 investment, Qwest did adjust for the relationship between the price of new equipment
6 (current cost), and the price of the equipment actually in service (book costs) when
7 calculating the maintenance factors. However, for pole lines, the price trend is
8 increasing. That is, new poles cost more than the poles currently in service. For poles,
9 Qwest did not adjust for the difference between "current" and "book" costs in calculating
10 their maintenance factor. Schedule WD-9 is the document on which Qwest calculates the
11 current to book cost factor for each account. However, when calculating its maintenance
12 factors, Qwest only used these "current to book" factors for those few accounts that have
13 an asterisk by them.

14

15 Q. CAN YOU EXPLAIN THIS PROBLEM?

16 A. Yes. I will do so by the following simple example. Assume there is an existing pole on
17 the Company's books that was installed in 1980. In 1980, that pole cost \$100. The
18 investment still on the books for that pole is \$100. Assume the average maintenance cost
19 on a pole is \$2 per year. Therefore, to get the ratio of maintenance expense to book cost
20 investment, you would divide the \$2 per year maintenance expense by the \$100 book
21 investment, and get a 2% factor. This calculation is shown below:

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4
5 Calculation of the Maintenance Factor on Book Costs

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1980 Book Investment One Pole	Maintenance Expense Per Pole	Maintenance Ratio Expense/"Book" Investment
\$100	\$2	2%

14 It is important to note that this factor is valid only if applied to the book cost. However,
15 many of the studies in this proceeding assume all investments are installed new at today's
16 costs. This is the so-called "current" investment. For example, today a new pole may
17 cost \$200 in this hypothetical example. If the annual maintenance on a pole is \$2, then
18 the ratio of maintenance to "current" investment is 1%, as shown below:

19
20
21
22
23
24

Current Investment One Pole	Maintenance Expense Per Pole	Maintenance Ratio Expense/"Current" Investment
\$200	\$2	1%

25 The use of either of these factors will give the correct maintenance expense (\$2 per pole)
26 provided that the correct factor is applied to the correct investment. However, Qwest
27 calculates the ratio based upon the book cost, but then applies it to the current cost. This
28 overstates the maintenance expense as shown below:

29 Qwest's Incorrect Calculation

30
31
32
33
34
35

Current Investment	"Book" Rate	Incorrect Maintenance Per Pole
\$200	x 2%	= \$4

1 In short, for many accounts, Qwest calculated the maintenance factor based on book
2 costs, but then applied it to current costs.

3
4 Q. WHAT IMPACT DOES SELECTIVELY FAILING TO ADJUST FOR THE
5 “CURRENT” TO “BOOK” RATIO HAVE?

6 A. For an account in which the investments are increasing, adjusting for the ratio of current
7 to book reduces the maintenance factor that would otherwise be calculated. For an
8 account where the investment prices are decreasing, adjusting for current book increases
9 the calculated maintenance factor over what would otherwise be calculated. There are
10 exceptions, but in general, Qwest made this “current to book” adjustment on those
11 accounts where making the adjustment would increase the maintenance expense factor,
12 but did not make this adjustment on those accounts where making this adjustment would
13 decrease the maintenance expense factor.

14
15 There is a similar problem in the Qwest calculation of the Ad Valorem (i.e. property tax)
16 factors.

17
18 Q. WHAT MAINTENANCE FACTORS DID THE AT&T INTERVENORS USE IN THE
19 HATFIELD MODEL FILED IN THIS PROCEEDING?

20 A. The Hatfield Model as filed by AT&T/XO/Worldcom used the cost factors as found by
21 the FCC to be the appropriate inputs.³⁷

22
23

³⁷ FCC Order 99-304, Appendix A, Part 3.

1 **XI. COST OF MONEY FACTORS**

2
3
4
5 Q. WHAT COST OF MONEY DID QWEST AND AT&T/XO/WORLDCOM USE?

6 A. In its cost models, Qwest used a 10.37% cost of money and associated capital structure
7 which was based upon the ACC's 1998 Order in the prior UNE proceeding, Docket No.
8 U-3021-96-448 et al.³⁸ AT&T/XO/Worldcom used a 9.61% overall cost of money and
9 associated capital structure from the Commission's March 30, 2001 decision in the recent
10 general rate proceeding, Decision No. 63487.³⁹ The capital structure that was adopted by
11 the ACC in that proceeding was the capital structure that had been proposed by the Staff
12 in prior testimonies.

13
14 In the cost of money factors used in my analyses, I utilized the more recent 9.61% overall
15 cost of money from the Staff testimonies and ACC Decision No. 63487, and the
16 associated capital structure.

17
18 **XII. UNAFFILIATED DSL PROVIDERS ARE NOT TREATED THE SAME**
19 **AS ARE QWEST OR QWEST-AFFILIATED DSL SERVICES**

20
21 Q. WHAT DSL SERVICES DO QWEST OR QWEST AFFILIATES PROVIDE?

22 A. Qwest Corporation provides retail xDSL services to the public in Arizona. In addition,
23 Qwest's affiliate, Broadband Services Inc. (BSI), offers VDSL, video, telephony and

³⁸ Page 35, Million Direct.

³⁹ Page 36, Denney Direct.

1 high-speed data services.⁴⁰ Of course, many of these services compete with xDSL
2 services offered by the CLECs.

3
4 Q. IF THERE IS AN ESTABLISHED RATE FOR A CHARGE, IS THE QWEST
5 AFFILIATE ALSO SUPPOSED TO PAY THAT ESTABLISHED CHARGE?

6 A. Yes. The FCC's affiliate transaction rules provide ways to calculate the charges that such
7 affiliates should pay to its regulated affiliate. In declining order of preference, these
8 charges are:

- 9 -Tariff rates for tariffed goods and services (including published UNE rates)
- 10 -Prevailing company price (PCP) for non-tariffed services purchased at least 50%
- 11 by non-affiliates
- 12 -services that are neither tariffed nor offered at prevailing company price, fully
- 13 distributed cost or fair market value, whichever is higher.
- 14

15 The problem is that it is usually Qwest that makes the decision as to which of these
16 requirements apply. For example, Qwest charges non-affiliated DSL providers an \$80
17 per line non-recurring charge for line sharing. The non-affiliated DSL providers pay the
18 \$80, while the Qwest-affiliated DSL provider does not pay the \$80, but pays some other
19 charge.⁴¹

20
21 Since Qwest apparently imposes this \$80 charge on all other DSL line sharing companies
22 other than themselves or an affiliate, that \$80 charge would appear to be a "prevailing
23 company price" or "fair market value." However, Qwest has simply decided that it does
24 not consider this \$80 charge a "prevailing company price" or "fair market value," and

⁴⁰ Qwest response to ACC Request WD 04-101.

1 therefore chooses to charge its affiliate using another method, which is the fully
2 distributed cost method.

3
4 Q. ARE THERE OTHER MAJOR INSTANCES OF QWEST CHARGING DIFFERENT
5 RATES TO ITS XDSL AFFILIATE THAN IT CHARGES TO UNAFFILIATED XDSL
6 PROVIDERS?

7 A. Yes. For example, for line sharing, unaffiliated xDSL providers must pay Qwest
8 numerous charges from a long list of complex recurring and non-recurring charges for
9 both the line sharing and collocation that are required to provide the xDSL line sharing
10 service. However, the xDSL affiliate does not pay the charges on this list, but instead has
11 a very simple charge that it pays for collocation for line sharing purposes.

12
13 When asked to provide a “complete list” of the collocation charges that apply to BSI
14 facilities located in a Qwest central office, Qwest provided the document that shows a
15 very simple rate structure.⁴² That document is attached hereto as page 3 Schedule WD-
16 10. Instead of charging their affiliate all of the complex non-recurring and recurring
17 charges that apply to unaffiliated xDSL providers collocating in Qwest’s central office,
18 Qwest simply charges BSI one simple recurring rate per bay, and one of two simple non-
19 recurring rates per bay.

⁴¹ However, Qwest promises that it will begin charging Broadband Services Inc. (BSI) this same non-recurring charge that it charges unaffiliated DSL providers once the Commission approves the tariff in this proceeding. (Qwest response to ACC Request STF 07-166)

⁴² Qwest response to ACC Request WD 06-154.

1 The collocation charges that BSI pays to Qwest are not based upon the same cost studies
2 that are used to determine the collocation charges that would be paid by the unaffiliated
3 xDSL providers. Instead of basing the BSI charges on the same collocation cost studies,
4 Qwest states that the collocation charges to BSI are "fair market value based." The
5 complex schedule of collocation and line splitting charges that Qwest proposes for
6 CLECs are essentially charges for the "other guy." These charges frequently do not
7 apply to Qwest's xDSL affiliate.
8

9 Q. CAN YOU SHOW THE NUMBER AND COMPLEXITY OF THE CHARGES THAT
10 APPLY TO UNAFFILIATED XDSL PROVIDERS?

11 A. Yes. Attached as Schedule WD-11 is the Company's response to ACC Request WD 02-
12 60, which shows some of the charges that an unaffiliated CLEC would pay to collocate
13 splitting equipment in Qwest's central office. An unaffiliated CLEC would also have to
14 pay other numerous "collocation" charges in addition to the charges shown on Schedule
15 WD-11.
16

17 XIII. OSS FOR LINE SHARING

18
19 Q. WHAT IS THE CHARGE FOR LINE SHARING OSS THAT QWEST PROPOSES?

20 A. Qwest proposes a \$2.74 recurring per line per month charge which Qwest alleges will
21 recover the cost of modifying its operational support systems (OSS) for a "long term"
22 solution to line sharing.
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Q. WHAT ARE OPERATIONAL SUPPORT SYSTEMS (OSS)?

A. OSS are programs that the Company uses for service ordering, installation, repair and switch activation. Qwest claims that it has contracted to pay \$14 million to a company called Telcordia Technologies, to implement a "long term" solution for line sharing OSS across its 14 state territory. Telcordia provides many of the OSS programs that were previously provided by Bellcore. The Company alleges that 85% of this contract, or approximately \$11.9 million is for line sharing.⁴³ Under Qwest's proposal, CLECs would be charged \$2.74 per month per line shared for this "long term" OSS cost.

Q. UNDER THE QWEST PROPOSAL, WOULD QWEST'S AFFILIATE DSL PROVIDER BE REQUIRED TO PAY THIS OSS CHARGE?

A. No. As Qwest admitted in response to ACC Request WD 4-106, Qwest's affiliate DSL provider, Broadband Services Inc. (BSI) would not be required to pay this OSS charge.

Q. DOES QWEST'S CURRENT LINE SHARING AGREEMENT STATE THAT QWEST WILL CHARGE DSL CLECS THE SAME RATES THAT IT CHARGES ITS OWN AFFILIATE DSL PROVIDER?

A. Yes. Section 2.11.1 (Separate Subsidiary) of Qwest's current line sharing agreement, it states:

In the event Qwest establishes a separate subsidiary to provide xDSL or other data services, and that separate subsidiary Line Shares with Qwest, Qwest will provision Line Sharing to the separate subsidiary at the same rates Qwest then is

⁴³ Albersheim Direct Testimony, page 24, footnote 15. In discovery, I asked for the workpapers to support this 85% allocation. The Company responded that there were no workpapers, and that "Telcordia provided this information over the telephone." Qwest response to ACC Request WD 04-098.

1 using to provide Line Sharing to other telecommunications carriers. Those same
2 rates will be made available to all telecommunications carriers on a
3 nondiscriminatory basis.⁴⁴
4

5 Qwest does have an affiliate, Broadband Services Inc. (BSI), that provides xDSL services
6 using line sharing with Qwest. However, in spite of the above provision, Qwest would
7 not bill this \$2.74 per line per month OSS charge to its xDSL affiliate, but would bill it to
8 unaffiliated xDSL providers.⁴⁵
9

10 Q. IS THIS A SIGNIFICANT DISCRIMINATION?

11 A. Requiring the competing CLECs to pay an almost \$3 per line monthly charge that Qwest
12 or its affiliates do not pay places those CLECs at a significant, and improper,
13 disadvantage to Qwest.
14

15 As is discussed elsewhere in this testimony, there are a number of other rates that apply
16 to the non-affiliated xDSL providers but do not apply to the Qwest affiliate xDSL
17 provider.
18

19 Q. WHAT DO YOU RECOMMEND PERTAINING TO UNAFFILIATED XDSL
20 PROVIDERS?

21 A. I recommend that the tariff charges for a particular service that applied to the unaffiliated
22 xDSL providers also apply to the Qwest affiliated xDSL provider. Such a requirement
23 eliminates discrimination, is consistent with the provision of the Qwest agreement quoted

⁴⁴ Attachment 1 to the Amendment to the Interconnection Agreement between (CLEC) and Qwest Corporation..

⁴⁵ Qwest responses to ACC Requests WD 06-161 and WD 04-097.

1 above, and is consistent with the FCC's affiliate transaction rules, as discussed elsewhere
2 in this testimony.

3

4 Q. HAS QWEST IMPLEMENTED AN "INTERIM" SOLUTION FOR LINE SHARING
5 OSS?

6 A. Yes. As Qwest indicated in response to discovery, Qwest has implemented "changes in
7 methods and procedures" to allow CLECs to order line sharing. With the interim
8 solution, Qwest is now able to receive and process orders for line sharing.⁴⁶

9

10 Q. WILL QWEST'S "LONG TERM" OSS SOLUTION ENABLE QWEST TO PROVIDE
11 ANY LINE SHARING SERVICES THAT QWEST CANNOT NOW PROVIDE
12 UNDER ITS "SHORT TERM" SOLUTION?

13 A. No. As Qwest stated in response to discovery,

14 There is no difference in 'what line sharing service' could or could not be
15 provided. The difference between the interim and long-term solutions is a
16 difference in the automation of line sharing processes via Qwest OSS.⁴⁷

17

18

19 Q. DOES THIS COST FOR A "LONG TERM" SOLUTION APPEAR TO BE
20 REASONABLE?

21 A. No. It must be remembered that OSS would be utilized only at the time an order was
22 being placed, or for repair calls. However, the Company proposed \$2.74 charge is per
23 month per line. If DSL service stayed in service an average of three years, that would

⁴⁶ Qwest's response to Staff Data Request WD 4-94(a) and (d).

⁴⁷ Qwest's response to Staff Data Request WD 4-94(e).

1 mean the CLEC would be paying a total of approximately \$100 per order just to pay for
2 the cost of the OSS modification.⁴⁸ Of course, the CLEC also pays charges that pay for
3 any other costs incurred at the time the order is placed. Paying what amounts to \$100 per
4 order just for the modifications to the computer program to accept those orders in a
5 different way than they are now accepted, does not appear to be reasonably cost justified.

6
7 Q. EVEN ASSUMING THAT IT WAS DESIRABLE TO REPLACE THE PRESENT
8 LINE SHARING ORDERING SYSTEM, DID QWEST INVESTIGATE THE MOST
9 EFFICIENT WAYS TO ACCOMPLISH THAT?

10 A. No. It must be remembered that an FCC Order requires all of the major LECs to provide
11 line sharing. Therefore, the major LECs nationwide are currently involved in modifying
12 their OSS to accommodate line sharing. In addition, the company (Telcordia) that
13 provides the OSS program to Qwest also provides the OSS to the vast majority of the
14 major LECs.⁴⁹ The other LECs also have the need to modify their Telcordia OSS for line
15 sharing. In discovery, I asked:

16 Has Qwest considered the possibility of sharing the costs of developing an OSS
17 solution to support line sharing with other telecommunications providers?

18
19 Qwest responded, "No."⁵⁰ Instead,

20 The solution Qwest requested from Telcordia was a custom solution.⁵¹

21
22 Q. WHAT DO YOU RECOMMEND?

⁴⁸ \$2.74 per month x 36 months - \$98.64.

⁴⁹ Qwest response to ACC Request WD 01-021. 80% of telecommunications in the United States depends on Telcordia software.

⁵⁰ Qwest response to ACC Request WD 03-092.

⁵¹ Qwest response to ACC Request WD 04-095(e).

1 A. I believe to create a charge that applies to non-affiliated xDSL line sharing providers but
2 does not apply to Qwest or Qwest affiliated xDSL line sharing providers, is
3 discriminatory. In addition, the evidence I have received so far is not convincing that the
4 magnitude of the cost incurred was necessary. Even assuming that the OSS costs that
5 Qwest has presented are correct, if the cost of the Arizona portion of that charge was
6 spread over all xDSL line sharing services (including those provided by Qwest affiliates),
7 the monthly cost per line would less than \$0.10. Qwest has acknowledged that the
8 number of lines they divided into the cost in order to arrive at the "per line" cost did not
9 include the Qwest or Qwest affiliate shared lines.⁵² I suggest a \$0.10 per shared line per
10 month OSS charge. This would apply to all providers of xDSL services (including Qwest
11 or any Qwest affiliate), or other services that are using the HFPL (or subloop), through
12 line sharing.⁵³

13
14 **XIV. LINE SHARING LOOP CHARGE**
15

16
17 Q. WHAT DOES QWEST PROPOSE FOR THE LINE SHARING LOOP CHARGE?

18 A. Qwest proposes a \$5.00 per line monthly line sharing loop charge.⁵⁴ However, Qwest's
19 testimony does not make it very clear how Qwest arrived at this specific \$5.00 charge.
20 Mr. Fitzsimmons properly states that the loop cost is a common or joint cost, and the
21 recovery of that should be spread among the services that use that common cost.
22 However, he does not provide any specific guidance as to how that rate should be

⁵² Qwest response to ACC Request WD 04-101.

⁵³ In some instances, xDSL providers may have their own feeder, but use line sharing only on the distribution portion of the loop.

⁵⁴ Exhibit MA-1A, page 8, Arnold Direct.

1 calculated, nor how Qwest arrived at the specific \$5.00 proposed rate. Mr. Fitzsimmons
2 states:

3 None of the loop costs on the shared line are attributable to only one of the two
4 dedicated connections.⁵⁵

5
6 Referring to TELRIC, Mr. Fitzsimmons further states:

7
8 TELRIC analysis does not, however, offer a clear method for selecting the most
9 reasonable allocation of these costs. ... it does not however, offer a meaningful
10 basis for electing the most reasonable allocation of a portion of this cost for
11 recovery by the price of HFPL.⁵⁶

12
13
14 Further,

15
16 Along with its joint product (the low frequency portion of the loop), the HFPL
17 [high frequency portion of the loop] causes the cost of the loop.⁵⁷

18
19
20 Qwest claims the cost of the loop facilities are \$23.07 in Zone 1, \$28.62 in Zone 2, and
21 \$42.14 in Zone 3.⁵⁸ In the \$5.00 rate proposal, Qwest is effectively proposing that
22 approximately 20% of what Qwest contends the loop cost to be should be recovered in
23 the line sharing charge. In this proceeding, I am not aware of any party that has proposed
24 a specific non-zero rate, other than the \$5.00 Qwest proposed rate.

25
26 Q. CAN YOU GIVE THE COMMISSION MORE SPECIFIC GUIDANCE THAN MR.
27 FITZSIMMONS HAS PROVIDED?

28 A. Yes. Separations allocates 25% of the loop cost to the interstate jurisdiction. That is true
29 regardless of whether or not xDSL service is using the high frequency portion of the loop
30 (HFPL). Therefore, this leaves the remaining 75% of the loop cost to be recovered from

⁵⁵ Page 7, Fitzsimmons Direct.

⁵⁶ Page 10, Fitzsimmons Direct.

⁵⁷ Page 12, Fitzsimmons Direct.

1 the combination of (a) basic services; (b) vertical services; (c) state toll and access
2 services; and (d) the intrastate portion of the line sharing DSL charge.⁵⁹

3
4 The telecommunications companies incur the cost of the loop for the purpose of
5 providing the whole family of services that share the loop. There is no unique way of
6 determining what portion of the loop cost should be assigned to each. Therefore, any
7 such assignment is judgmental. For purposes of this proceeding, the concept of Qwest,
8 which is a line sharing charge equal to approximately 20% of the unbundled loop cost, is
9 as good a judgement as any other. I recommend the line sharing rate be set at 20% of the
10 overall weighted average unbundled loop rate that is established in this proceeding. At
11 the \$11.89 unbundled loop rate that Staff recommends which is shown on Schedule WD-
12 8, this 20% factor would result in a line sharing rate of \$2.38 for the HFPL.

13
14 Q. BEGINNING ON PAGE 6 OF HIS TESTIMONY, MR. FITZSIMMONS STATES
15 THAT "USAGE-BASED AND ADD-ON SERVICES" "SUCH AS SWITCHED
16 ACCESS AND TOLL USAGE" AND "CALL WAITING AND VOICE MAIL" DO
17 NOT CAUSE THE COST OF THE LOOP. DO YOU AGREE?

18 A. No. A telephone company decision to install loop facilities is not based upon the
19 anticipation of receiving just basic exchange revenues. The decision to install the loop
20 facility is based on the expectation of receiving all revenues that will be derived over that
21 loop facility. A Qwest executive stated this succinctly:

⁵⁸ Exhibit MA-1A, Arnold Direct.

⁵⁹ Qwest books 75% of the line sharing revenue into the intrastate jurisdiction. (Qwest response to ACC Request WD 01-030) All of the line sharing revenues do not get booked to intrastate. Qwest books 25% of the line sharing revenues to interstate, and 75% to intrastate.

1 These are annuity businesses and services. Once I have that line, which is a
2 \$12.95 [a month] relationship with you today, I can visualize how I'm going to
3 get that to be a \$60 relationship tomorrow. That's how we think. It's not just that
4 product. It's what the product means for our relationship. In the voice world
5 today that \$12 to \$14 access line really represents anywhere from \$60 to \$80 a
6 month as we add those vertical features. The same thing in the data world. That's
7 how many of us in the business think about it.⁶⁰
8

9 In fact, in the early years of telephony, one loop was used to provide local service, and
10 AT&T ran a separate loop to the premises to carry toll service. However, later AT&T
11 required the LECs which it owned to upgrade their loop facilities to "toll" standards.
12 Since then, the loop facility that is installed is actually a combined local and toll loop.
13 There is no valid reason that just one of the services that shared what is effectively the
14 combined local/toll loop, should support the full cost of that loop facility. The simple fact
15 is that the loop facilities are shared by many services, and it is the entire family of
16 services which is responsible for those costs, not just basic exchange service.
17 When a customer orders service, they are ordering a whole family of services. The
18 ability to place and receive toll calls commences, and that line becomes available for
19 access services.

20
21 It is important to recognize that the loop facility cost is not "caused" by basic exchange
22 service or when an end user calls the telephone company to order telephone service. At
23 the time a customer orders service, all that happens is a spare loop is made active. Since
24 most of the loop costs are investment-related (i.e. return on investment, depreciation,
25 etc.), there is very little cost difference between an idle loop pair and an active loop pair.
26 The loop facility is installed long before a specific customer orders service at a location.

⁶⁰ Telecommunications Reports, December 13, 1999, "Turning DSL into Dough is the Goal of US West.",

1 The loop facilities are installed while the subdivision is under development, normally
2 before streets are laid, before driveways and sidewalks are in place, and before any
3 homes are built. The loop is installed months, or even years, before an end user actually
4 calls to order service.

5
6 It is not uncommon for a "new customer" who moves into an existing home to be
7 provided telephone service using the cable pair that is ten, 15 or even 20 years old. As
8 previously quoted from Qwest's own witness Mr. Fitzsimmons,

9 Along with its joint product (the low frequency portion of the loop), the HFPL
10 causes the cost of the loop."⁶¹
11

12 The loop is not caused just by basic exchange, or by any one of the family of services that
13 share the loop facility. It is caused by the entire family of services that use the loop and
14 benefit from the loop.

15
16 **XV. INTERNET SERVICE PROVIDER (ISP) TRAFFIC**⁶²
17

18 Q. WHAT DID THE FCC DECLARE IN ITS RECENT APRIL 27, 2001 ORDER⁶³

19 PERTAINING TO ISP BOUND TRAFFIC?

20 A. Among other things, the FCC found:

p. 36.

⁶¹ Page 12, Fitzsimmons Direct.

⁶² Sometimes referred to as information service provider.

⁶³ FCC 01-131.

1 1. Traffic being delivered to ISPs is interstate traffic subject to the jurisdiction of the
2 FCC, and not subject to the reciprocal compensation provisions of Section 251(b)(5) of
3 TA96.

4 2. The existing agreements or state ordered reciprocal compensation would continue
5 to apply temporarily, with the following caps: Inter-carrier compensation for ISP bound
6 traffic is capped at \$0.0015 per minute for six months. For the next 18 months, the cap is
7 \$0.0010. After this two year period, the cap is \$0.0007 per minute of use until further
8 FCC action.

9 3. There is a limit on the growth of the minutes of ISP bound traffic for a local
10 carrier.

11 4. The FCC makes a rebuttable presumption that traffic between local carriers that
12 exceeds a 3 to 1 ratio of terminating to originating traffic is ISP bound traffic.

13 5. The FCC also states the incumbent LECs must "agree" to the same caps on its
14 reciprocal compensation charges even for non-ISP traffic in order for these LECs to
15 receive the caps on their payments for ISP bound traffic.

16
17 Q. WHAT DO YOU RECOMMEND PERTAINING TO THE ISP BOUND TRAFFIC?

18 A. The FCC has declared that it has jurisdiction over this ISP bound traffic. Therefore,
19 absent some court ruling to the contrary, the requirements on this traffic set forth in the
20 FCC Order should apply. This Commission does not have jurisdiction over those rates,
21 on advice of counsel.

22

1 However, the FCC Order appears to state that the incumbent LECs, such as Qwest, in
2 order to receive the benefit of these limitations on the ISP termination charges they pay
3 the CLECs, must also “agree” to charge those same rates for their terminating charges to
4 the CLECs for all traffic (not just ISP bound traffic).

5
6 The FCC Order attempts to control the reciprocal compensation rates for non-ISP bound
7 local traffic. It is not clear to me that this requirement by the FCC is binding on the ACC,
8 on advice of counsel. The FCC has not taken jurisdiction of the non-ISP bound traffic.

9 The FCC has not declared that traffic to be interstate. Therefore, that traffic is clearly
10 intrastate, and presumably under the jurisdiction of the ACC. Presumably the courts will
11 be looking at this jurisdictional issue, but for purposes of this testimony, I believe it is the
12 ACC that has control of the rates for the non-ISP bound reciprocal compensation.

13
14 Q. ON PAGE 27 OF HIS DIRECT TESTIMONY, MR. BROTHERRSON ON BEHALF OF
15 QWEST ALLEGES THAT THE COST OF DELIVERING INTERNET BOUND
16 TRAFFIC IS NOT INCLUDED IN BASIC RATES. IS THAT A CORRECT
17 STATEMENT?

18 A. No. Qwest admitted that the residential basic exchange cost study it filed in the last
19 general rate case did include the cost of Internet bound traffic.

20 Dr. Taylor understands that the residential basic exchange service cost study that
21 Qwest filed in the rate case docket (No. T-01051B-99-105) was based on an
22 estimate of monthly local usage that included internet-bound traffic.⁶⁴
23

24

⁶⁴ Qwest response to ACC Request WD 04-139A.

1 **XVI. TANDEM OR END OFFICE RATES**

2
3 Q. WHAT IS TANDEM SWITCHING?

4 A. A tandem switch is an intermediate switch that serves to interconnect central office
5 switches, for which direct interoffice facilities are not available.
6

7 Q. IS THERE AN ISSUE RELATED TO RECIPROCAL COMPENSATION THAT
8 DEALS WITH THE TANDEM AND END OFFICE RATES?

9 A. Mr. Knowles and Mr. Brotherson address the issue of whether the tandem switching or
10 end office switching rates should apply in various circumstances.⁶⁵ When traffic from an
11 LEC or CLEC terminates on another LEC's or CLEC's switch, the issue is whether that
12 terminating switch should be considered an end office switch or a tandem switch. Mr.
13 Knowles argues that FCC Rule 51.711(a)(3) requires a CLEC switch to be considered a
14 tandem switch if it "serves a geographic area comparable to the area served by an
15 incumbent LECs tandem switch."
16

17 On the other hand, Mr. Brotherson argues that the FCC requires that reciprocal
18 compensation rates be "symmetrical."⁶⁶ Mr. Brotherson also argues that the nature of the
19 CLEC's switch should be determined based upon whether the cable from or to that
20 CLEC's switch connects to a Qwest end office or a Qwest tandem.
21

⁶⁵ Beginning on page 19, Knowles Direct; Page 33, Brotherson Direct.

⁶⁶ Page 34, Brotherson Direct.

1 In my opinion, Mr. Knowles wins this argument. Mr. Brotherson is correct that the FCC
2 Rules, Paragraph 51.711(a) states that the rates shall be symmetrical, but with certain
3 stated exceptions. Among those stated exceptions is the exception that Mr. Knowles
4 refers to, which states:

5 Where the switch of a carrier other than an incumbent LEC serves a geographic
6 area comparable to the area served by the incumbent LEC's tandem switch, the
7 appropriate rate for the carrier other than an incumbent LEC is the incumbent
8 LEC's tandem interconnection rate.⁶⁷
9

10 I also agree with Mr. Knowles that in determining the rate for the CLEC switches, the
11 nature of the Qwest switch to which the interconnecting cable is connected is not at issue.
12 The question is whether the CLEC's switch is a tandem switch or end office switch. That
13 is not determined by the nature of the Qwest switch that is on the other end of the
14 interconnecting cable. Cables can and do connect tandems to end offices and vice versa.
15 Therefore, determining what type of switch is on one end of that cable in no way
16 identifies what type of switch is on the other end of that cable. I agree with Mr. Knowles
17 that the determination of whether the CLEC is entitled to apply the rates for local
18 switching or the rates for tandem switching depends on the nature of that CLEC's switch,
19 and does not depend upon the nature of the Qwest switch that is on the other end of an
20 interconnecting cable. It is my understanding that this issue has been raised in the 271
21 workshops, but I am not aware whether or not it is been resolved.

22 23 **XVII. UNES FOR VERTICAL SERVICES**

24
25 Q. WHAT ARE "VERTICAL" SERVICES?

1 A. Optional services that a customer can add to their basic exchange service (e.g. Call
2 Waiting, Caller ID, etc.) are generally referred to as “vertical” services.

3

4 Q. WHAT IS A KEY ISSUE PERTAINING TO UNES FOR VERTICAL SERVICES?

5 A. Qwest proposes that there be a separate UNE charge for each vertical service.

6 AT&T/XO/Worldcom proposes that the switching port charge include the right to utilize
7 the vertical services provided by the switch. AT&T/XO/Worldcom point out that the
8 ACC does not now impose separate UNE charges for these vertical services. The vertical
9 services being discussed can be seen on pages 17 through 19 of Schedule WD-8.

10

11 Q. HOW ARE VERTICAL SERVICES PROVIDED?

12 A. Generally there are capabilities that are incorporated in the modern digital switch, and
13 switching system. A modern digital switch has the ability to provide a whole family of
14 vertical services. Generally, the incremental cost of providing one of these services is
15 tiny. Even Qwest’s calculation of the incremental cost of most of these services is an
16 extremely small figure.⁶⁸

17

18 Q. WHAT DO YOU RECOMMEND?

19 A. I believe the current ACC practice of including the features as being covered by the
20 “port” UNE rate is acceptable.⁶⁹ According to information contained on page 29 of Mr.
21 Hydock’s testimony, the majority of the commissions in Qwest states include the features

⁶⁷ 47 CFR, §51.711(a)(3).

⁶⁸ See Maureen Arnold Exhibit MA-1A, Section 9.11.4.

⁶⁹ This is for features that are currently activated in the Qwest switch.

1 in the port rate. In addition, the Hatfield model switching costs include the feature
2 costs.⁷⁰ No valid reason for changing that has been established in this proceeding.

3
4 **XVIII. LINE SHARING AGREEMENT**

5
6 Q. QWEST HAS NOW ENTERED INTO A LINE SHARING AGREEMENT WITH
7 SOME XDSL PROVIDERS. ARE THE RATES THAT QWEST HAS AGREED TO IN
8 THAT "PERMANENT LINE SHARING AGREEMENT" SIGNIFICANTLY LOWER
9 THAN THE RATES QWEST HAS CLAIMED ARE SUPPORTED BY COSTS IN
10 THEIR TESTIMONY IN THIS PROCEEDING?

11 A. Yes, as shown on Schedule WD-12.

12
13 **XIX. INDIVIDUAL CASE BASIS (ICB)**

14
15 Q. WHAT IS ICB PRICING?

16 A. Individual case basis pricing means that there is no explicit tariff price for the service.
17 Instead, the price for the service is determined on an individual case basis. When a
18 CLEC asks for an ICB service, Qwest would provide a quotation as to what Qwest
19 believes this service should cost. If the CLEC does not agree that is a reasonable price,
20 they would negotiate. If that failed, they would have to seek resolution of the appropriate
21 rates.

22

⁷⁰ Page 43, Hydock Direct.

1 Q. MR. LATHROP OBJECTS TO THE INDIVIDUAL CASE BASIS ("ICB") PRICING.⁷¹
2 HE ALLEGES THAT THIS FORCES THE CLECS TO ENTER NEGOTIATIONS
3 WITH QWEST AT THE TIME THE CLECS ARE TRYING TO ORDER SERVICE.
4 HE INDICATES THAT SINCE THE CLECS ARE ANXIOUS TO GET SERVICE
5 INSTALLED AT THAT TIME, THEY ARE IN A WEAK NEGOTIATING POSITION.
6 DO YOU AGREE WITH THE CONCEPT THAT ICB CHARGES ARE NOT
7 PREFERABLE?

8 A. Yes. Prolonged negotiations over the correct "ICB" price which delays the CLEC's
9 provision of service impedes competition. I believe that the CLEC seeking service
10 should have a price list available so that they can order service. To have that be the start
11 of a negotiation process with Qwest, clearly forces the CLEC to either concede to Qwest
12 proposed ICB prices in order to get service installed, or may cause the CLEC to lose a
13 customer if prolonged negotiations are involved before they can provide service.
14 However, my understanding is that at this time, the ICB issue is being addressed in the
15 271 workshops, and therefore will not be further addressed here at this time.

16
17 **XX. QUOTATION FEE**
18

19 Q. MR. LATHROP OBJECTS TO THE MAGNITUDE OF THE QUOTATION FEE.⁷² DO
20 YOU AGREE WITH HIS OBJECTION?

21 A. In general, I agree with Mr. Lathrop. A large investment by the CLECs should not be
22 required to find out what Qwest would charge them for collocation and similar services.

⁷¹ Pp. 30-32, Lathrop Direct. Also see page 48, Hydock Direct.

⁷² P. 43, Lathrop Direct.

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XXI. CABLE HOLES

Q. WHAT ARE "CABLE HOLES?"

A. A cable hole is a hole in the floor or wall in a central office through which the Company can pass cables. The Company installs metal plates over those portions of the holes that are not filled with cables, in order to prevent fire from passing from one area to another through these holes. When additional cables are run through those holes, some of the metal plates must be removed, notches cut in the metal plates to accommodate the new cables, and the metal plates replaced.⁷³

Q. MR. KNOWLES, ON BEHALF OF AT&T/XO/WORLDCOM, CONTENDS THAT THE \$425.99 CHARGE THAT QWEST PROPOSES TO OPEN AND CLOSE A "HOLE" IS EXCESSIVE.⁷⁴ PLEASE COMMENT.

A. Mr. Knowles is correct that the Qwest rate is high. In discovery, Qwest shows that the cost to "open, modify, and close" a cable hole in the central office is ** ** if performed by QTI.⁷⁵ If this is adjusted to allow for ** ** of the time being at higher overtime rates (as Qwest assumed in its calculations⁷⁶), and add a 15% administrative factor, the cost per hole is still less than ** **. I propose the charge to "open, modify, and close" a hole in the central office be \$260.

⁷³ A sealing material is also applied to the cracks between the steel plate and cable to further retard fire spread.

⁷⁴ Page 16, Knowles Direct.

⁷⁵ And a similar cost if performed by vendors. Qwest response to ACC Request STF 11-216.

XXII. UNE-PLATFORM (UNE-P)

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Q. WHAT IS UNE-P?

A. Under unbundled network element-platform (UNE-P), a CLEC orders unbundled network elements that remain connected together. The “unbundled loop” is connected to the “unbundled port,” etc. At the time a customer switches from being a Qwest retail customer to a CLEC customer served by UNE-P, there is no change in the physical facilities that Qwest uses to provide service to that customer. When a CLEC subscribes to UNE-P service, Qwest actually provides the services using the same facilities that Qwest would use to provide service if it was a Qwest retail customer. Under UNE-P, the Qwest loop is used, the Qwest switching equipment is used, and Qwest interoffice facilities are used. Qwest continues to provide the services using the same equipment, but that service is billed as UNE-P service to the CLEC, instead of being billed as retail service to the end user. The group of services that make up UNE-P are the unbundled loop, port, shared transport, local switching (and under Qwest’s proposal, a separate charge for any features provided). The CLEC would also have to make arrangements to provide certain supporting services, such as directory assistance and operator services.⁷⁷

The most significant recurring rate of all of the UNEs included in the UNE-P is the rate for the loop.

Q. UNDER UNE-P WHAT REVENUES DOES THE CLEC RECEIVE?

⁷⁶ Schedule WD-1.

⁷⁷ Qwest response to ACC Request WD 10-203.

1 A. The CLEC receives all of the charges for the use of the line and the switch (as opposed to
2 any of them going to Qwest). Specifically, the CLEC receives basic exchange revenues
3 from the end user, and the payments for vertical services from the end user. Unlike
4 resale, the CLEC also receives from the IXCs any originating or terminating access
5 charges (both intrastate and interstate) associated with the use of the loop or switch. The
6 CLEC would receive the subscriber line charge (SLC). (The SLC is sometimes referred
7 to as the end user common line (EUCL) charge.)
8

9 Q. ON PAGES 19-24 OF HIS TESTIMONY, MR. GILLAN ADDRESSES WHAT HE
10 CONTENDS ARE PROBLEMS PERTAINING TO THE CONNECTION OF TRAFFIC
11 FROM UNE-P CUSTOMERS TO OPERATOR SERVICES, DIRECTORY
12 ASSISTANCE SERVICES, OTHER CLECS, AND "TOLL." MR. GILLAN STATES
13 THAT IF THESE SERVICES ARE NOT PROPERLY TREATED, ONE RESULT
14 COULD BE REQUIRING THE CLECS THAT UTILIZE UNE-P TO CONSTRUCT OR
15 OBTAIN DEDICATED TRUNKS TO EVERY END OFFICE THEY SERVE, WHICH
16 WOULD BE COSTLY, INEFFICIENT, AND BURDENSOME.⁷⁸ WHAT DO YOU
17 RECOMMEND ON THESE ISSUES?

18 A. I agree that if it was necessary for the CLECs to establish dedicated trunks to every
19 central office they serve, in order to deal with such miscellaneous items as directory
20 assistance or operator services, that would certainly undermine some of the value of
21 UNE-P. The TA96 prefers that the CLECs and IXCs negotiate these issues. I am not
22 aware of whether or not this issue has been settled in the 271 workshop. I would
23 certainly ask Qwest and the CLECs to negotiate these issues, and file a resolution of these

1 issues during this proceeding. However, if that does not occur, then I believe the
2 Commission should find that for a line on which a CLEC has subscribed to UNE-P,
3 Qwest must connect all traffic that originates on that line to its appropriate designation
4 within the LATA, at the rates that this Commission establishes for the various UNE-P
5 functions. For example, if a CLEC is not utilizing Qwest's operator services, and instead
6 had designated a specific IXC point of interconnection in the LATA to which calls to
7 operator services should be delivered, then Qwest should deliver those calls for operator
8 services to the trunk groups at the point of interconnection the CLEC has designated for
9 receiving such service. Qwest should charge the same local switching and shared
10 transport per minute charges that would apply to any other traffic originating from that
11 UNE-P customer to that point of interconnection.⁷⁹

12
13 **XXIII. CABLE UNLOADING/BRIDGE TAP REMOVAL**

14
15 Q. WHAT ARE CABLE LOADINGS AND BRIDGE TAPS?

16 A. Cable loadings are devices that are used on relatively long loops to improve the voice
17 quality. However, if high speed data is to be sent on a loop, the cable loadings must
18 commonly be removed in order to prevent interference with high-speed data
19 transmissions. A bridge tap is essentially a "dead end" cable pair that branches off of the
20 cable pair that is a direct path between the central office and the end user.

21

⁷⁸ Page 23, Gillan Direct.

⁷⁹ Qwest must also deliver the "supervision" information associated with the call (i.e. the number dialed, the number where the call originated, etc.).

1 Q. QWEST PROPOSES A NON-RECURRING CHARGE OF \$649.98 TO REMOVE A
2 BRIDGE TAP OR DISCONNECT THE LOADINGS FROM A PAIR.⁸⁰ MR. FARRAR
3 STRONGLY OBJECTS TO THIS CHARGE. AMONG OTHER THINGS, MR.
4 FARRAR CLAIMS IT WOULD BE MORE EFFICIENT TO REMOVE THE LOAD
5 COILS OR BRIDGE TAPS FROM SEVERAL CABLE PAIRS AT A TIME, INSTEAD
6 OF FROM ONLY ONE PAIR AT A TIME. PLEASE COMMENT.

7 A. In general, I agree with Mr. Farrar's point of view. To spend what Qwest claims to be
8 hundreds of dollars to send a person to a given location in the field, and have them
9 remove only one load coil, or disconnect one bridgetap, does not appear to be an efficient
10 use of resources. The rates that I propose are shown on Schedule WD-8. I propose a rate
11 of \$40 per loop to remove load coils or bridge taps for loops of 18,000 feet or less. The
12 rates for a loop less than 18,000 feet assume that the Company will be removing several
13 bridge taps or load coils at the same time. Load coils are not needed to provide voice
14 service on loop lengths of 18,000 feet or less. The rates I recommend for loops greater
15 than 18,000 feet are higher, and are shown on Schedule WD-8.⁸¹

16
17 **XXIV. AVOIDED COST DISCOUNT**

18
19 Q. WHAT WAS REMANDED BACK TO THIS COMMISSION PERTAINING TO THE
20 AVOIDED COST DISCOUNT?

21 A. In *Renz D. Jennings v. US West*, the Court stated:

⁸⁰ Exhibit MA-1A, page 7, Arnold Supplemental Direct.

⁸¹ Mr. Farrar's Attachment RGF-1 shows this is the rate that Sprint as an LEC charges in another jurisdiction for "loops less than 18,000 feet in length." (Also see page 12 of Farrar Direct)

1 ...The ACC must at least consider the range of cost savings for different
2 categories of services, as well as the potential for abuse through selective ordering
3 tactics, and determine whether additional discount rates are needed. Whether the
4 ACC has, or can even obtain, the information needed to more accurately identify
5 the cost savings attributable to various services will also be a factor in deciding
6 whether to establish additional discount rates.
7

8 Because the decision does not adequately explain the result reached, or
9 demonstrate that the ACC considered all relevant factors, the issue of resale
10 discounts is remanded for further consideration. The court expresses no opinion
11 regarding the proper result on remand.⁸²
12

13 Q. DOES THE ACC HAVE, OR CAN IT OBTAIN, "THE INFORMATION NEEDED TO
14 MORE ACCURATELY IDENTIFY THE COST SAVINGS ATTRIBUTABLE TO
15 VARIOUS SERVICES"?

16 A. No. Ms. Gude attached a complex study to her testimony.⁸³ In that study, Qwest
17 performed a two-step process.⁸⁴ First, Qwest prepared a CAAS/CARS document in
18 which it assigned numerous costs to various products or product groups. Second, Qwest
19 prepared the Company's opinion as to what percent of each of these costs would be
20 avoided for each product group.
21

22 However, many of the key parts of the above process are based upon Qwest's opinion
23 and judgement, not based upon actual records. The accounting records that Qwest keeps
24 under the Uniform System of Accounts (USOA) does not identify costs by product. The
25 Automated Reporting Management Information System (ARMIS) Reports that Qwest
26 provides to the FCC do not identify costs by intrastate product, as Qwest stated in
27 response to discovery:

⁸² 46 F. Supp. 2d 1004, 6, May 4, 1999.

⁸³ Gude Direct Exhibit DMG-2.

⁸⁴ Pp. 29-30, Gude Direct.

1 ARMIS data does not provide the requisite detail information for 'intrastate' retail
2 telecommunications product/service evaluation. Thus, although ARMIS data and
3 reports tie to the Company's FCC Book of Accounts, they do not contain an
4 adequate level of detail to implement the resale provisions of the
5 Telecommunications Act ...⁸⁵
6

7 In fact, Qwest has no set of records that specifically identify these various costs by
8 product. In response to discovery as to how Qwest determined the amounts of the
9 avoided cost by products, Qwest stated it did so primarily based upon "Qwest's
10 managerial judgement."⁸⁶

11 Managerial judgement is inherent in recording operational results, and thus is
12 inherent in the determination of the amount of 'avoided' retail costs in those
13 recorded results. ...
14

15 In order to determine avoided cost, a general understanding of US West/Qwest's
16 wholesale/retail cost relationships was developed. Specific costs and work
17 functions were reviewed in order to gain a more detailed understanding of the
18 costs and to determine more specifically which cost elements would continue to
19 be incurred by Qwest in a resale (wholesale) environment, and which elements
20 were associated strictly with Qwest's retail operations. This understanding and
21 information was augmented, where necessary, with detailed accounting records
22 and/or special studies. (emphasis added)
23

24 This quotation makes it very clear that the primary basis of the determination of various
25 avoided costs for different products or product categories was "managerial judgement",
26 and "detailed accounting records and/or special studies" served, at best, a secondary role.

27 In short, the avoided cost figures by category that Qwest presents are essentially the
28 result of a large number of judgements made by Qwest. Of course, Qwest has a
29 significant financial interest in the outcome of this proceeding, so those cannot be
30 considered judgements that were made by an unbiased party.
31

⁸⁵ Qwest response to ACC Request WD 01-015.

⁸⁶ Qwest response to ACC Request WD 02-056.

1 In short, there is no factual basis on which to establish more accurate disaggregation of
2 the avoided cost discounts than was established in Decision No. 60635. Various parties
3 can present studies that are based upon their opinions of how costs should be
4 disaggregated among products or product lines and what portion would be avoided, but
5 those are opinions. Nothing that I have seen causes me to think that the opinions
6 presented by Qwest in this proceeding are superior to the judgements made by the ACC
7 in Decision No. 60635.

8
9 **XXV. QWEST'S PROPOSAL IS EFFECTIVELY TO GREATLY REDUCE THE**
10 **OVERALL DISCOUNT—NOTHING IN THE REMAND INDICATED THAT**
11 **THE OVERAL DISCOUNT SHOULD BE REDUCED**

12
13 Q. WHAT IS ONE IMPACT OF QWEST'S PROPOSAL?

14 A. Qwest's proposal has the impact of greatly reducing the average discount rate. Currently,
15 the existing discount is 12% for residential basic exchange service, and 18% for virtually
16 all other services, including business basic exchange, vertical, toll, non-recurring, and
17 private line. The weighted average composite discount under the current rates is

18 ** **.

19
20 However, under Qwest's proposal, the weighted average retail discount would be
21 10.46%. In short, under the guise of disaggregating the discounts, Qwest is actually
22 trying to greatly reduce them.

1 Q. THERE ARE CURRENTLY TWO DIFFERENT DISCOUNTS IN ARIZONA, A 12%
2 DISCOUNT FOR RESIDENTIAL BASIC, AND AN 18% DISCOUNT FOR MOST
3 OTHER SERVICES. HAVE THE COMMISSIONS IN THE MAJORITY OF THE
4 QWEST STATES APPROVED MORE THAN TWO AVOIDED COST DISCOUNT
5 RATE CATEGORIES?

6 A. No. Nine of the Qwest jurisdictions have one or two different discount categories,
7 whereas only six other Qwest jurisdictions have more than two avoided cost discount
8 categories.⁸⁷

9

10 Q. IN DISCOVERY, MS. GUDE CLAIMED THAT SEVEN OTHER STATES HAD
11 RELIED ON THE QWEST CAAS/CARS DATA IN SETTING QWEST'S RESALE
12 DISCOUNTS. IS IT CLEAR THAT THE STUDIES RELIED ON BY THE
13 COMMISSIONS IN THOSE OTHER JURISDICTIONS ARE MUCH DIFFERENT
14 THAN THE STUDY QWEST HAS FILED IN THIS PROCEEDING?

15 A. Yes. In the seven other states that Ms. Gude claims relied on CAAS/CARS, the avoided
16 cost discount for residential basic exchange service adopted by the commissions averaged
17 14.9%.⁸⁸ The avoided cost study that Ms. Gude has filed in this proceeding alleges a
18 4.19% discount for residential basic exchange service. Quite clearly, whatever these other
19 commissions based their avoided cost discount on was very different than the avoided
20 cost study filed in this proceeding by Ms. Gude.

21

⁸⁷ Qwest response to ACC Request WD 01-014. Also see the response to ACC Request WD 04-131.

⁸⁸ Qwest response to ACC Request WD 04-134; Qwest response to ACC Request WD 01-014.

1 It should be noted that the differences in the states cannot reasonably justify such a huge
2 difference in avoided costs. For example, the postage cost that is avoided in Arizona is
3 the same postage cost avoided in any other state.

4
5 Q. DID YOU CHECK THE ACCURACY OF THE COMPANY'S CLAIM THAT THESE
6 OTHER COMMISSIONS HAD BASED THEIR AVOIDED COST DISCOUNT ON
7 THE CAAS/CARS?

8 A. Yes. Washington is one state that Ms. Gude claims relied on CAAS/CARS for its
9 avoided cost discount. The Washington Order that Ms. Gude refers to does not indicate
10 that the Company's judgements were used, but instead indicates that the avoided cost
11 discount was based primarily on Staff proposals. Specifically,

12 The Commission's review of direct, avoidable cost indicates that Commission
13 Staff's estimates of the ratio of avoidable costs for product management, sales,
14 and product advertising are appropriate. With respect to customer services, the
15 Commission also finds Commission Staff's ratio to be reasonable, except that the
16 customer service costs related to non-recurring charges in excess of revenue are
17 100% avoidable. ... Otherwise, we adopt Commission Staff's presentation on call
18 completion and number service.⁸⁹

19
20 The Washington Order also states that the avoided cost calculation is based upon the
21 "capital costs in Commission Staff's" study.⁹⁰

22
23 Quite simply, Ms. Gude's claim that the Washington Order was based upon Qwest's
24 determination of avoided costs is simply not correct.

25

⁸⁹ Eighth Supplemental Order Interim Order Establishing Costs for Determining Prices on Phase II; and Notice of Prehearing Conference, Washington Utilities and Transportation Commission, Docket No. UT-960369 et al., May 11, 1998, Paragraph 408.

⁹⁰ Id. at 410.

1 Q. HOW DO THE WHOLESALE DISCOUNTS ADOPTED IN THE OTHER QWEST
2 STATES THAT MS. GUDE REFERRED TO COMPARE TO THAT PROPOSED BY
3 QWEST IN THIS PROCEEDING?

4 A. Shown below is a comparison of the wholesale discounts Qwest proposes for Residential
5 Basic Exchange Service in this proceeding, to the discounts approved for this service in
6 the states in which Qwest claims the Commissions “adopted/relied on CAAS/CARS data
7 in setting Qwest’s resale discounts”⁹¹:

8		Residential Basic
9		<u>Wholesale Discount</u> ⁹²
10	Qwest proposed	
11	This proceeding	4.19%
12		
13		<u>Discounts in effect:</u>
14	Colorado	13.00%
15	Iowa	10.27%
16	Nebraska	22.50%
17	New Mexico	15.05%
18	South Dakota	15.49%
19	Utah	12.20%
20	Washington	16.00%

21
22 As demonstrated above, Qwest’s proposed discount for Residential Basic Exchange
23 Service is much smaller than the wholesale discount that has been approved in the states
24 where Qwest claims that the Commissions in those states “adopted/relied on
25 CAAS/CARS data in setting Qwest’s resale discounts”.

26
27
28
29

⁹¹ Qwest response to ACC Request WD 04-134D.

1 **XXVI. THE QWEST AVOIDED COST STUDY VIOLATES**
2 **TA96 REQUIREMENTS**

3
4 Q. WHAT IS THE KEY TA96 REQUIREMENT FOR THE WHOLESALE RATE?

5 A. The key requirement of TA96 for calculating the wholesale rate is that the wholesale
6 rates must be the “retail rates” less “avoided cost”, as Section 252(d)(3), the TA96
7 specifically states:

8 A State commission shall determine wholesale rates on the basis of retail rates
9 charged to subscribers for the telecommunications service requested, excluding
10 the portion thereof attributable to any marketing, billing, collection and other
11 costs that will be avoided by the local exchange carrier.
12

13 For example, if the retail rate is \$10, and the avoided costs are \$1, then the wholesale rate
14 is \$9. As a percent, this would be a 10% discount off of the \$10 retail rate. The proper
15 calculation of this discount as a percent has the rate in the denominator⁹³, as follows:

16
$$\frac{\$1 \text{ avoided cost}}{\$10 \text{ retail rate}} = 10\% \text{ avoided cost discount}$$

17

18
19 Q. DO THE AVOIDED COST DISCOUNTS THAT QWEST PROPOSES IN THIS
20 PROCEEDING FOLLOW THIS KEY REQUIREMENT OF TA96?

21 A. No. Ms. Gude did not use the rate or revenues in the denominator of her calculation of
22 the avoided cost discount she proposes. Instead of using the rates or revenues in the
23 denominator, Ms. Gude used her claimed “total operating costs”⁹⁴ in the denominator.

⁹² These are the wholesale discounts applicable to AT&T in each of the states shown. Qwest response to ACC Request 01-014.

⁹³ In some calculations, the revenues generated by those rates may properly be used in the denominator.

⁹⁴ In addition, I do not agree with how they calculated the “total cost” for various services, but that is not a key issue at this time since the total cost should not be used in the calculation of the proper avoided cost anyway. For example, Ms. Gude included 100% of the intrastate loop cost as being the cost of basic exchange service. (Qwest response to ACC Request WD 02-033)

1 Ms. Gude admits that the resale discounts were calculated “as a percent of total avoided
2 costs to total operating costs.”⁹⁵

3
4 Q. CAN YOU DEMONSTRATE THAT CALCULATING RESALE DISCOUNTS USING
5 “TOTAL OPERATING COSTS” IN THE DENOMINATOR WILL NOT RESULT IN
6 DISCOUNTS THAT CONFORM TO THE TA96 REQUIREMENTS?

7 A. Yes. As previously discussed, if the retail rate for a service is \$10.00, and the avoided
8 cost is \$1.00, the wholesale rate must be \$9.00 (\$10 retail rate minus \$1 avoided cost)
9 under the TA96 requirement.

10
11 Assume that the claimed “total operating cost” of the service is \$20, and the avoided cost
12 is \$1. If the wholesale discount percent is calculated as a percent of the total cost, the
13 resulting discount is 5% (\$1.00 avoided cost divided by \$20 total cost = 5%). The
14 wholesale rate is calculated by applying the 5% discount to the retail rate of \$10,
15 resulting in a discount of \$0.50 and a wholesale rate of \$9.50. This is not the appropriate
16 result for a \$1 avoided cost.

17
18 This error can also create an excessive discount if the claimed cost is below the rate.

19 Assume that the “total operating cost” of the service is \$5, and the avoided cost is \$1. If
20 the wholesale discount percent is calculated as a percent of the total cost, the resulting
21 discount is 20% (\$1.00 avoided cost divided by \$5.00 total cost = 20%). The wholesale
22 rate is calculated by applying the 20% discount to the retail rate of \$10.00, resulting in a
23 wholesale rate of \$8.00. This is not the appropriate result for a \$1 avoided cost. Quite

⁹⁵ Page 58, Gude Direct.

1 simply, the Qwest method is incorrect, since the percent will be applied to the retail rates,
2 not the total costs.

3
4 As previously discussed, the Washington case is one case in which Qwest claimed that
5 the Commission had “adopted/relied on CAAS/CARS data in setting Qwest’s retail
6 discounts.” In that Washington case, Qwest also proposed an avoided cost discount that
7 used the “total cost” in the denominator. This was rejected by the Commission and
8 virtually all other parties.

9 Sprint, GTE, Commission Staff, Public Counsel, and AT&T/MCI all support the
10 use of revenues in the denominator.⁹⁶

11
12 The Washington Commission found that the in the wholesale discount calculation, the
13 avoided cost “should be divided by revenues.”⁹⁷

14
15 Q. HAS THE ACC PREVIOUSLY FOUND THAT QWEST’S METHOD OF UTILIZING
16 “TOTAL COSTS” INSTEAD OF RATES WAS IMPROPER?

17 A. Yes. The ACC previously found:

18 US West’s inputs and calculations yield an avoided cost discount that is
19 unreasonably low on its face. Its chosen methodology of subtracting avoided
20 costs from forward-looking costs of retail activities is not a reasonable method,
21 and is not in keeping with the Act’s discount method. Section 252(d)(3) provides
22 that wholesale prices shall be determined ‘on the basis of retail rates charged to
23 subscribers for the telecommunication service requested, excluding the portion
24 thereof attributable to any marketing, billing, collection, and other costs that will
25 be avoided by the local exchange carrier.’ Pursuant to Section 252(d)(3),
26 calculation of a wholesale discount requires the deduction of avoided costs from
27 the service’s actual retail price.⁹⁸

28

⁹⁶ Eighth Supplemental Order, Washington Utilities and Transportation Commission, Docket No. UT-
960369 et al., May 11, 1998, Paragraph 404.

⁹⁷ Id at 410.

1 Q. HOW MUCH DIFFERENCE DOES CORRECTING THIS ONE ERROR MAKE IN
2 THE AVOIDED COST DISCOUNTS?

3 A. Correcting just the one error of Qwest having divided by "total costs" instead of by the
4 revenues, changes the results dramatically. Shown below is a comparison of the discount
5 percentages calculated by Qwest using their claimed "total costs" in the denominator,
6 compared to the calculation using the revenues in the denominator.

<u>Service Description</u>	<u>Percent Discount As Calculated By Qwest Using "Total Costs" in the Denominator</u>	<u>Percent Discount Calculated the Same Except Using Revenues in the Denominator</u>
15 Basic Exchange Business	9.41%	8.24%
16 Toll	23.96%	15.03%
17 Listings, CO Features, and		
18 Information Services	41.51%	18.80%
19 Basic Exchange Residence	4.19%	7.49%
20 Private Line	6.44%	7.55%
21 Packaged/Special Services	10.46%	11.20%

22
23 The wide variation in the Qwest proposed discounts is greatly reduced when just this one
24 error is corrected. The way Qwest calculated the discounts, they ranged from 4% to 42%.
25 This is a wide range of discounts. The largest discount is ten times the smallest discount.
26 However, when just the one correction of using the revenues in the denominator is made,
27 the range of discounts is greatly reduced. The revised range is 7% to 19%. The largest
28 discount is less than three times the smallest discount, with this one correction. Quite
29 simply, the wide variation in the avoided cost discounts as calculated by Qwest by

⁹⁸ Decision No. 60635, page 35.

1 service category is largely a result of the above-referenced Qwest error of using the
2 wrong denominator.

3
4 It must be emphasized that the figures shown in the second column of the above table are
5 not my recommendation. These are numbers in which I have corrected only one Qwest
6 error. All of the other Qwest assumptions, judgements, and calculations, whether proper
7 or improper, are still contained in the numbers in the second column.

8
9 Q. MS. GUDE CLAIMS THAT QWEST'S CAAS/CARS DATA AND PROCEDURES
10 HAVE BEEN AUDITED BY THE COMPANY'S EXTERNAL AUDITORS.⁹⁹ WHAT
11 SUPPORT COULD THE COMPANY PROVIDE FOR THIS STATEMENT?

12 A. When asked for the basis of this statement, Qwest provided documents that indicated
13 auditors had determined that certain reports filed in Colorado were in conformance with
14 the "Accounting Segregation Manual" as "amended" by the Colorado Public Utilities
15 Commission.¹⁰⁰ The Company provided no citations to any external audits of their
16 CAAS/CARS in any other state. The audit in Colorado was even to an "amended"
17 version of the Manual.

18
19 In addition, Ms. Gude does not even claim that external auditors have audited the second
20 step in the Qwest process, which is the step in which Qwest determines what portion of
21 each expense Qwest contends will be "avoided" for each product group. Since the

⁹⁹ P. 29, Gude Direct.

¹⁰⁰ Qwest response to ACC Request WD 02-045, Attachment A, page 3.

1 avoided cost figures that Qwest has filed in this case are clearly opinion or judgement-
2 driven figures, it is not clear how such figures could realistically be audited.

3
4 Q. WOULD THE QWEST PROPOSAL INTRODUCE NUMEROUS, IMPROPER
5 ADMINISTRATIVE PROBLEMS?

6 A. Yes. Under the Qwest proposal, different CLECs could be getting vastly different
7 discounts for the exact same services. For example, under Qwest's proposal, if a CLEC
8 purchased residential basic exchange service and Call Waiting for the same customer at
9 the same time, that would not constitute a package/special service purchase. The reason
10 it would not be considered a package/special service purchase is because it would be
11 ordered under two separate "USOCs". USOCs are codes that Qwest uses internally to
12 identify different services. However, if a different CLEC ordered that same combination
13 of services for a customer at the same time, but used the "single" Qwest USOC that
14 indicated Custom Choice, that CLEC would receive the "package/special services"
15 discount on that package.

16
17 In discovery, I asked Qwest if a CLEC wished to offer a package that consisted of basic
18 exchange service and non-published services, would that CLEC receive the
19 package/special service discount. Qwest said they would not.

20 No. ... Basic Exchange Residence service and Non-Published service would have
21 to be purchased a la carte on separate USOCs since Qwest does not offer these
22 services as a bundle that can be purchased on a single unique USOC.¹⁰¹

23
24 In other words, it is not any combination of basic and vertical services that qualify as a
25 "package." It is only certain combinations that Qwest chooses to offer that qualify.

1

2 Q. DOES THE QWEST PROPOSAL HAVE LESS DISAGGREGATION THAN FIRST
3 APPEARS?

4 A. Yes. The Qwest proposal would result in the same discount rate being applied to
5 approximately ** ** of the business lines, and almost ** ** of the
6 residential lines. ** ** of residential lines are provided under what is
7 considered a "package" service, and ** ** of business lines are provided under what
8 is considered a package service under Qwest's proposal. Therefore, the 10.46% proposed
9 discount would apply to ** ** of the business lines, and almost ** ** of the
10 residential lines.

11

12 Q. MS. GUDE STATES:

13 Unique category discounts are in keeping with the spirit and the express language
14 of the Act. The language of the Act refers to wholesale and retail rates, using the
15 plural, not the singular.¹⁰²

16

17 DOES THE ACT REQUIRE THAT MORE THAN ONE DISCOUNT BE
18 IMPLEMENTED?

19 A. No. As Ms. Gude points out, the Act refers to "rates" in the plural, not "discounts".
20 Multiple wholesale discounts are not necessary to have multiple wholesale rates. For
21 example, assume the retail prices of services "A" and "B" are \$1.00 and \$2.00,
22 respectively. Applying a uniform wholesale discount of 18% to both services would
23 result in wholesale rates for services "A" and "B" of \$0.82 and \$1.64, respectively.
24 Therefore, the existence of multiple retail and wholesale rates does not necessitate the

¹⁰¹ Qwest response to ACC Request WD 02-049C.

¹⁰² Page 13, Gude Direct.

1 adoption of separate wholesale discounts. Nothing in the Act requires that multiple
2 “discounts” be implemented.

3
4 Of course, the ACC currently has two different discount rates, which is a “plural” number
5 of discounts, although a plural number of discounts is not required.

6
7 Q. IN MS. GUDE’S TESTIMONY, SHE ARGUES THAT THE FCC GUIDELINES
8 SHOULD NOT BE RELIED UPON BECAUSE THEY HAVE BEEN VACATED AND
9 REMANDED TO THE FCC.¹⁰³ WERE THE FCC “AVOIDED COST” GUIDELINES
10 IN EFFECT WHEN THE ACC ESTABLISHED ITS CURRENT AVOIDED COST
11 DISCOUNTS?

12 A. No. The FCC guidelines pertaining to the avoided cost discount are contained in Part
13 51.607 and Part 51.609 of the FCC Rules. Those sections of the Rules had been vacated
14 by the Courts at the time of the ACC’s Decision No. 60635 dated January 30, 1998.¹⁰⁴
15 My understanding is that the Supreme Court later reinstated those rules. However, a later
16 court decision has now vacated and remanded the FCC’s “avoided cost” discount rules.
17 Regarding the FCC avoided cost rules, we are now in essentially the same position that
18 we were at the time of Decision No. 60635, which is that the FCC avoided cost rules are
19 vacated and remanded to the FCC.

20
21 One problem with trying to completely redo the avoided costs at this time is the fact that,
22 to the best of my knowledge, the FCC has not yet issued the revised avoided cost rules in

¹⁰³ Page 8, Gude Direct.

¹⁰⁴ See Introduction Part A., reference to the July 18, 1997 decision in Iowa Utilities Board v. FCC, page 4.

1 response to that remand by the Court. Therefore, at this time, there are no FCC avoided
2 cost rules before us for guidance. However, it is reasonable to expect that there will be
3 revised FCC avoided cost rules established in the future.

4
5 Q. THE JENNINGS ORDER QUOTED ABOVE ALSO TALKED ABOUT THE
6 “POTENTIAL FOR ABUSE THROUGH SELECTIVE ORDERING TACTICS.” DID
7 THAT ORDER EXPLAIN FURTHER WHAT IT MEANT BY THIS?

8 A. Yes. The Jennings Order stated:

9 An additional consideration is that a CLEC can often purchase a service at the
10 resale discount, or else effectively obtain that same service by buying the
11 unbundled network elements, whichever is cheaper. A discount rate that is
12 generated by averaging a wide range of cost savings can be problematic if the
13 CLEC can pick which services to order at the wholesale price and which to order
14 at the unbundled element price.¹⁰⁵
15

16 Q. WHEN A CLEC ORDERS AN UNBUNDLED LOOP, IS THAT CLEC ORDERING
17 WHAT AMOUNTS TO THE EQUIVALENT OF JUST ONE RETAIL SERVICE?

18 A. No. By ordering the unbundled loop the CLEC obtains control of that facility. That
19 facility is used to provide many different retail services. Therefore, there is no direct
20 tracking between the unbundled facility and a specific retail service. For example, if a
21 CLEC orders a business unbundled loop, that loop provides the CLEC with the ability to
22 connect basic exchange service, toll service, central office and informational services,
23 and “package” services to and from that premise. Page 4 of Ms. Gude’s testimony shows
24 that this covers four different categories of service that she has proposed. When an
25 unbundled loop is ordered, that is a facility that provides a family of services that
26 includes virtually all of the telecommunications services, not one specific service or even

1 one category of service. (By category of services, I am referring to the categories shown
2 on page 4 of Ms. Gude's testimony.) That unbundled loop is not related to simply one
3 retail service.

4
5 Mr. Gillan's testimony in this proceeding shows a UNE-P analysis.¹⁰⁶ As this analysis
6 shows, a CLEC compares the revenues that will be generated by all of the services
7 provided by that UNE to these UNE costs. The UNE cost is not associated with just one
8 service or service category.

9
10 **XXVII. LOOP COST MODEL**

11
12 Q. WHAT IS ONE PROBLEM WITH QWEST'S LOOP COST MODEL?

13 A. The Qwest model does not include reasonable cable placement costs. The cost of placing
14 the cable has one of the largest impacts of any input on the cost results. The costs of
15 "placement" are approximately ** ** of the total investments in the Qwest
16 model.¹⁰⁷

17
18 There are several different ways of placing cable. Some of those methods are several
19 times as expensive as the other methods.¹⁰⁸ For example, in standard soil, it is several
20 times more expensive to (1) "bore," (2) cut and restore asphalt, or (3) cut and restore

¹⁰⁵ 46 F. Supp. 2d 1004, 6, May 4, 1999.

¹⁰⁶ Page 15, Gillan Direct. By referring to this analysis of Mr. Gillan, I am not necessarily supporting the specific numbers he presents, but I am simply demonstrating that the proper way of evaluating UNE costs is to compare them to the family of services that are provided over those UNE facilities.

¹⁰⁷ Qwest response to ACC Request WD 09-187.

¹⁰⁸ Schedule RJB-4, page 4, Buckley Direct. For example, trench cable-standard is ** ** per foot. Two inch directional bore is ** ** per foot.

1 concrete than it is to "trench." Therefore, the assumption as to what percent of these
2 types of placements are utilized has a major impact on the costs.

3

4 Q. WHAT DID QWEST ASSUME FOR THE INSTALLATION AND DISTRIBUTION
5 CABLES IN A NEW RESIDENTIAL SUBDIVISION?

6 A. Qwest assumed that ** ** of the length of the distribution cables would have to be
7 placed by the very expensive placement methods, including boring, cutting and restoring
8 concrete, and cutting and restoring asphalt.¹⁰⁹ This is an unrealistic percent.

9

10 Q. IN RESIDENTIAL SUBDIVISIONS, HOW ARE THE DISTRIBUTION CABLES
11 ACTUALLY PLACED?

12 A. The subdivision developer frequently provides the trench to Qwest at no cost to Qwest.

13 However, it is common for developers to provide utilities access to a common
14 trench in new subdivisions.¹¹⁰

15

16 The developer often provides the trench.¹¹¹

17

18

19 Q. IN PLACING DISTRIBUTION CABLE IN A RESIDENTIAL SUBDIVISION, IS IT
20 NORMALLY NECESSARY TO CUT AND RESTORE CONCRETE, CUT AND
21 RESTORE ASPHALT, OR BORE UNDER EXISTING CONCRETE OR ASPHALT?

22 A. No. When a new residential subdivision is being developed, the normal practice is for
23 the LEC to install the buried distribution cables prior to the time that the surface

¹⁰⁹ Schedule RJB-3, page 5, Buckley Direct. In their study, Qwest does assume a ** ** sharing factor for buried (Qwest response to ACC Request WD 09-187), which has the effect of assuming that ** ** of the cable placement costs would be recovered in some manner other than from Qwest. However, that does not compensate for the improper mix of placement types that Qwest has utilized.

¹¹⁰ Qwest response to ACC Request WD 09-187A.

¹¹¹ Id at B.

1 obstructions (i.e. roads, sidewalks, driveways, lawns, etc.) are in place, as Qwest admitted
2 in discovery.

3 Request:

4 Is it a correct statement that in your service territory when a new residential
5 subdivision is being developed, the normal practice is for the LEC to install the
6 buried distribution cables generally prior to the time that the roads, driveways,
7 sidewalks, lawns, bushes, etc. are in place? If this is not a correct statement,
8 please provide the correct statement.

9
10 Qwest response:

11 Yes. In new sub-divisions where the developer coordinates with the utilities,
12 outside plant facilities are generally placed prior to the placement of streets and
13 landscaping.¹¹²

14
15 The practice of installing cables in new subdivisions before the surface obstructions are
16 in place is the reasonable practice, and there is no reason to believe that this will not be
17 the practice that will be followed in the future. It is simply much more efficient and less
18 costly to put the buried cables or underground facilities in the ground before placing the
19 surface obstructions than after. Qwest's assumption that ** ** of the length of the
20 distribution cable in residential subdivisions will be placed using the expensive method
21 such as cutting and restoring concrete or asphalt, or boring under such obstructions, is not
22 a realistic or appropriate assumption.

23
24 In addition, the buried distribution cables in residential areas are designed to last the life
25 of the subdivision. That is, the Company does not plan on having to come back later to
26 add additional distribution cables.

27
28 Q. WHAT IS THE BASIS OF THE HIGH PLACEMENT COST THAT QWEST
29 ASSUMED?

1 A. In its cost model, Qwest assumed it would be installing the buried cables after the areas
2 were developed, and therefore after the surface obstructions were in place. As previously
3 discussed, this is not the standard industry practice, nor is it reasonable to believe that this
4 will be the standard industry practice in the future. The assumption that Qwest used is
5 not consistent with, or required by, the TELRIC requirements, which assumes the
6 “efficient” provision of service.

7
8 Q. DID THE ACC ADDRESS A SIMILAR ISSUE IN ITS DECISION NO. 60635?

9 A. Yes. In that Decision, this issue was addressed as being the “easy” vs. “difficult”
10 placement issue. In a prior study, Qwest had estimated that 80% of the loop placement
11 would be “easy,” but the study addressed in Decision No. 60635, Qwest reversed this,
12 and claimed that 82% of the placement would be “difficult.” The ACC rejected Qwest’s
13 claim that 82% of the placement would be “difficult” (and therefore expensive)
14 placement. The Commission adopted the Hatfield model’s method for calculating
15 placement costs.¹¹³

16
17 In short, the Loop Module (LoopMod) of the Integrated Cost Model (ICM) used by
18 Qwest in this case has the same problem that the Qwest model had in the prior
19 proceeding. That is, Qwest assumes that it would have to cut through or bore under
20 concrete or asphalt for a high percentage of the distribution cable feet placed. This
21 assumption does not reflect how cables are actually placed, nor does it represent how the
22 cables are expected to be placed in the future.

¹¹² ACC Request WD 09-187D and Qwest’s response.

¹¹³ Page 19, Decision No. 60635.

1

2 Q. WHAT MODEL DID THE ACC RELY UPON IN DECISION NO. 60635?

3 A. Throughout that Decision, the Commission repeatedly relied upon the Hatfield model.

4

5 Q. WHAT MODEL DO YOU RECOMMEND THE COMMISSION USE IN THIS
6 PROCEEDING FOR CALCULATING THE LOOP COSTS?

7 A. I recommend that the Commission use the Hatfield model, as a starting point, as it did in
8 Decision No. 60635, but with modification of the inputs as I have recorded herein.

9

10 Q. HAVE YOU USED THE SAME INPUTS AS AT&T/XO/WORLDCOM HAS
11 PROPOSED IN THIS PROCEEDING?

12 A. No. The Hatfield model that AT&T AT&T/XO/Worldcom filed did not use, in some
13 cases, the inputs that were specified by this Commission in Decision No. 60635.¹¹⁴ In
14 addition, there are some inputs that the ACC did not address in its prior order, but for
15 which the FCC has found appropriate inputs.¹¹⁵ Therefore, I utilized the ACC and FCC
16 inputs. The CD provided along with Mr. Denney's testimony contained a second run in
17 which Mr. Denney had adjusted the inputs for what he considered to be the ACC inputs,
18 although this was not the run that Mr. Denney sponsored in his testimony.¹¹⁶ I did not
19 use that run. Instead, I used the working model that Mr. Denney had used, and input the
20 FCC and ACC inputs. For those inputs that were addressed by the ACC in Decision No.
21 60635, I used the ACC ordered inputs. For those inputs that were addressed by the FCC
22 in FCC 99-304, but not addressed by the ACC in Decision No. 60635, I used the FCC

¹¹⁴ AT&T Exhibit DKD-1, Denney Direct.

¹¹⁵ FCC 99-304.

1 selected inputs. The loop cost results of this revised run are summarized on Schedule
2 WD-14.

3
4 Q. SCHEDULE WD-14 SHOWS TWO CATEGORIES, ONE THAT INCLUDES ALL
5 EXCHANGES INCLUDING THOSE THAT ARE FOR SALE, AND A SECOND ONE
6 THAT EXCLUDES THOSE EXCHANGES THAT ARE FOR SALE. WHICH OF
7 THESE TWO DO YOU RECOMMEND BE UTILIZED?

8 A. I recommend that the loop cost that excludes those exchanges that are for sale be utilized,
9 since that will reflect the actual wire centers that will be Qwest wire centers in the future.
10 The sale of the Qwest rural exchanges to Citizens has been approved.¹¹⁷ The unbundled
11 loop rates that I recommend are as follows:

	<u>Total Loop Cost</u>
Zone 1	\$9.35
Zone 2	\$14.20
Zone 3	\$36.34
Weighted statewide average	\$11.89

12
13
14
15
16
17
18 It should be noted that the above figures are not purely "costs", since they already include
19 a 15% contribution to the directly assigned, directly attributed, and common costs. It
20 should be noted that the sale of exchanges had a significant impact on the average loop
21 cost. As shown on Schedule WD-14, the statewide average loop cost was \$13.21
22 including the exchanges subject to sale, but dropped to \$11.89 after removing the sold
23 exchanges.

24

¹¹⁶ AT&T Exhibit DKD-7, Denney Direct.

¹¹⁷ ACC Decision No. 63268.

1 Schedule WD-15 shows the loop costs by wire center.

2

3 Q. THE FCC HAS REQUIRED THAT THERE BE AT LEAST THREE UNE ZONES.
4 HOW MANY ZONES HAVE THE VARIOUS PARTIES IN THIS PROCEEDING
5 PROPOSED?

6 A. Qwest proposed three zones, and AT&T/XO/Worldcom proposed three zones. In
7 Schedules WD-14 and WD-15, I have also utilized three zones.

8

9 Q. HOW DID YOU SORT THE WIRE CENTERS BY ZONES?

10 A. In Mr. Denney's Direct testimony, AT&T/XO/Worldcom presented the concept of
11 running a program that would minimize the deviation between the average cost for a zone
12 and the individual wire center costs in those zones. In effect, this program groups the
13 wire centers so as to make as small a total difference as possible between the cost of each
14 wire center and the average cost for the zone which includes that wire center. This
15 procedure makes sense and I believe is less arbitrary than many other methods of
16 dividing the wire centers between zones. I used this AT&T/XO/Worldcom program to
17 group the wire centers by minimizing the deviation between the individual wire center
18 costs and the average zone costs.¹¹⁸

19

20 **XXVIII. LOCAL SWITCHING, SIGNALING, TRANSPORT, AND LINE PORT**

21

22 Q. YOU HAVE PRESENTED THE LOOP COST RESULTS OF RUNNING THE
23 HATFIELD MODEL USING THE INPUTS ORDERED BY THE ACC IN DECISION

1 NO. 60635 AND THE FCC INPUTS. DOES THAT RUN ALSO PRODUCE RESULTS
2 FOR LOCAL SWITCHING, SIGNALING, TRANSPORT, AND LINE PORTS?

3 A. Yes. The results of that run are shown on Schedule WD-16. In this run, I used the
4 Hatfield model as provided by Mr. Denney in this proceeding, except modified to utilize
5 the inputs as specified by the ACC in Decision No. 60635. For those inputs that were
6 not specified by the ACC in that Order, I utilize the FCC selected inputs.¹¹⁹

7
8 Q. DO YOU BELIEVE THE RATES WHICH YOU HAVE RECOMMENDED IN THIS
9 PROCEEDING ARE CONSISTENT WITH THE REINSTATED COST RULES OF
10 THE FCC, WHICH ARE CURRENTLY IN EFFECT?

11 A. Yes.

12 **XXIX. MISCELLANEOUS REMAND ISSUES**

13
14 Q. WHAT IS ONE ISSUE THE COURT REMANDED?

15 A. One issue the Court remanded is the pricing for a four wire loop. I recommend the price
16 for a four wire loop should be double the cost of a two wire loop, minus the cost of one
17 network interface device (NID). The effect of this is that a four wire loop costs twice as
18 much as a two wire loop, except there will not be the cost of two NIDs included.

19
20 Q. WHAT IS ANOTHER ISSUE THAT THE COURT REMANDED?

¹¹⁸ As provided in Schedule DKD-12, Denney Direct.

¹¹⁹ The CD that was provided along with Mr. Denney's Testimony, in addition to the model that Mr. Denney proposed, contained a second file with the Hatfield model adjusted for the ACC inputs from Decision No. 60635. However, I did not use that run. I started with the Hatfield model and revised the inputs to conform to the ACC and FCC orders.

1 A. Another issue that the Court remanded is that the ACC had placed a \$5 maximum charge
2 on the Customer Transfer charge. The Court stated that the ACC had not indicated that
3 this was reflective of cost. I am not recommending a \$5 maximum on the Customer
4 Transfer charge.

5
6 Q. WHAT IS ANOTHER ISSUE THAT THE COURT REMANDED?

7 A. The ACC had set the non-recurring charge that applied to certain UNE elements based
8 upon a discount of the non-recurring charges that apply to certain retail services. The
9 Court held that if the non-recurring charge was for a UNE, it should be based upon its
10 own costs, and not upon a discount of the retail non-recurring rate. In this proceeding, I
11 am not proposing to base the non-recurring UNE rates on a discount of any retail rate.

12
13 However, it should be remembered that many of the functions are the same. Therefore, it
14 is reasonable to expect that there may be some similarity of costs. In those instances
15 where the Company's non-recurring costs for handling a UNE are much different than
16 the cost for handling a similar retail service that properly brings into question the
17 accuracy of the Company's cost figures. I am proposing that the non-recurring UNE rate
18 be based upon reasonably calculated costs, not on a percent discount from retail rates.

19
20 Q. WHAT IS ANOTHER REMAND ISSUE?

21 A. In the Jennings order, the Court stated:

22 If US West is proposing to separate already-combined network elements, that is
23 seemingly foreclosed by the Supreme Court's decision affirming 47 C.F.R. §
24 51.315(b). If US West is proposing to withhold certain network elements, that

1 would appear to violate the terms of the interconnection agreements. (citations
2 omitted)

3
4 This issue generally relates to the provision of UNE-P service. As is discussed
5 elsewhere, it appears that Qwest is now prepared to offer UNE-P service in Arizona. As
6 far as the statement about Qwest to "withhold certain network elements", elsewhere in
7 this testimony I have addressed the concept that Qwest should be required to provide
8 services such as connection to operator and directory assistance services, as well as toll. I
9 believe other portions of my testimony addresses any remaining key relevant issues.

10
11 Q. WHAT IS ANOTHER REMAND ISSUE?

12 A. Another remand issue is the single point of interconnection. In this issue, AT&T and
13 MCI wish to have available to them a single point of interconnection from which traffic
14 from a significant area would be connected. Qwest appeared to object to this,
15 complaining that such a single point of interconnection could overload Qwest tandem
16 switches. Qwest apparently suggests that such an area wide or LATA wide
17 interconnection point should not be required. The Court rejected Qwest's contention that
18 a CLEC is always required to establish a point of interconnection in each local exchange
19 in which it intends to provide service.

20
21 Q. WHAT DO YOU RECOMMEND WITH REGARD TO THE SINGLE POINT OF
22 INTERCONNECTION ISSUE?

23 A. My understanding is that this issue is being addressed in the 271 workshops. In general, I
24 believe that the multiple points of interconnection should be available to the CLEC.

1 Allowing a single point of interconnection does not place Qwest at any disadvantage
2 since the CLEC would pay Qwest the appropriate rates for the use of those facilities.

3
4 Q. THE COURT REMANDED ISSUES PERTAINING TO SUB-LOOP UNBUNDLING.
5 PLEASE COMMENT.

6 A. The ACC decided to permit unbundling of subloops, but only through a Bonafide request
7 (BFR) process, that gives Qwest 10 days to furnish a preliminary feasibility analysis and
8 21 days to furnish a price list. Any disputes are resolved pursuant to the dispute
9 resolution process established by the Agreement.

10
11 The Court questioned whether it is really necessary to utilize the full BFR process each
12 time a CLEC orders a subloop, since it will cause delays. Qwest argued that if the
13 CLECs themselves were allowed access to the feeder distribution interface (FDI) boxes
14 where the subloop unbundling would take place, the equipment could be damaged. MCI
15 proposed to pay Qwest employees to perform the subloop unbundling tasks for them, but
16 Qwest objected. The Court did not agree with Qwest that requiring its employees to
17 connect cables on behalf of the CLECs was improper. MCI argued discrimination since
18 MCI and CLECs could not access the unbundled loops as readily as Qwest could, but the
19 Court did not understand how there would be an instance in which Qwest would seek to
20 unbundle its own subloops for its own purposes.

21
22 Q. ARE THERE INSTANCES IN WHICH QWEST WILL UNBUNDLE ITS OWN
23 SUBLOOPS FOR ITS OWN PURPOSES?

1 A. Yes. Qwest unbundles its own subloops for BSI, which is the Qwest affiliate that
2 provides VDSL and other services. BSI frequently has its own feeder, but connects to the
3 Qwest distribution cables at the FDI.¹²⁰ It is my understanding that the BFR process is
4 still in negotiations in the workshops in the 271 proceeding, Docket No. T-00000A-97-
5 0238.

6

7 Q. ARE THERE REMAND ISSUES THAT PRIMARILY REQUIRE LEGAL
8 DEFINITIONS OR LEGAL INTERPRETATIONS OF RULES?

9 A. Yes. The Jennings Order remanded the "most favored nation" clause to the ACC for
10 determination of particular language and details of the implementation of that clause. In
11 addition, the Jennings Order remanded the collocation of remote switching units (RSUs)
12 to refine the definition of certain terms. The issue of special equipment deals with
13 whether Qwest must be required to install equipment at transmission rates designated by
14 AT&T, which is equipment beyond that which Qwest currently has in place or is
15 planning to put in place. The obligation to exercise eminent domain deals with whether
16 the ACC should, or can, require Qwest to exercise its eminent domain power when
17 needed to provide service for CLECs. Since these issues appear to be primarily legal
18 definitions or legal requirements, I am not addressing them in this testimony.

19

20

XXX. CONCLUSION

21

22 Q. WHAT DO YOU RECOMMEND?

¹²⁰ Qwest response to ACC Request WD 06-158.

1 A. I recommend that the rates shown in Column 5 on Schedule WD-8 be adopted. These are
2 the rates that are consistent with the ACC and FCC ordered inputs, and are consistent
3 with the various applicable requirements, including the requirements of TA96.

4

5 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

6 A. Yes.

Arizona
Docket No. T-00000A-00-0194
STF 11-216

INTERVENOR: Arizona Corporation Commission Staff

REQUEST NO: 216

In the Company's cost study provided on CD, in Tab E.3.1 Power-Caged, there is a heading entitled "Average for Five Actual Sites".

A. Is it a correct statement that although the sites may have been actual, and certain measurements such as distances, etc. used in the calculations were actual, that the actual cost calculation shown on Cell E8 was calculated using, at least in part, the assumptions listed starting on Row 32? If this is not a correct statement, please provide the correct statement.

B. The number in Cell E8 is a hard number. Please provide the actual details of the calculation of this number. To the extent that the assumptions which start on line 32 are used in this calculation, their use should be shown in those calculations.

C. On that same page, on Row 47, listed as number 2 is "AWG" cost. Please describe what type of wire is being priced here. Specifically state how many conductors there are in that wire.

D. Please provide the calculations which support the installation costs per foot figure shown in Cell D47. Specifically, the source for any time estimates that are used in this calculation should be provided.

RESPONSE:

A. Yes. Please see Confidential Attachment A, Power Backup.xls, the "1-time feeder costs" worksheet for the assumptions and calculations.

B. Please see Confidential Attachment A, Power Backup.xls, the "1-time feeder costs" worksheet for the assumptions and calculations.

C. "AWG" is an acronym for "American Wire Gauge" and contains a single conductor. The size of the conductor is #2 AWG. As AWG numbers increase, the diameter of the conductor gets smaller, and as the numbers get smaller, the diameter of the conductor gets larger. For #2 AWG, the size of the copper conductor is about 5/16" diameter, while the insulated cable is about 7/16".

D. Please see Confidential Attachment B, Labor Items.xls, row 32.

Confidential Attachments A and B are provided pursuant to the Confidentiality Agreement in this docket.

Respondent: Jennifer Peppers

**THIS SCHEDULE HAS BEEN OMITTED
IT CONTAINS INFORMATION CLAIMED TO BE
PROPRIETARY BY QWEST**

**THIS SCHEDULE HAS BEEN OMITTED
IT CONTAINS INFORMATION CLAIMED TO BE
PROPRIETARY BY QWEST**

**THE FOLLOWING PAGES ARE FROM QWEST'S
"ARIZONA COLLOCATION COSTS.XLS" SPREADSHEET,
TAB E.3.1 POWER-CAGED.**

**THIS SPREADSHEET WAS PROVIDED ON A CD ROM THAT WAS FILED
WITH MS. MILLION'S APRIL 16, 2001 SUPPLEMENTAL DIRECT TESTIMONY**

THIS SCHEDULE HAS BEEN OMITTED
IT CONTAINS INFORMATION CLAIMED TO BE
PROPRIETARY BY QWEST

**THIS SCHEDULE HAS BEEN OMITTED
IT CONTAINS INFORMATION CLAIMED TO BE
PROPRIETARY BY QWEST**

Arizona
Docket No. T-00000A-00-0194
WD 06-150

INTERVENOR: Arizona Corporation Commission

REQUEST NO: 150

With reference to Attachment A of Qwest's response to Data Request WDA 4-108, the "MegabitCost" and the "Megasubscriber Cost" are shown.

A. Please provide a complete copy of the cost studies that support the cost figures shown.

B. What is the basis for the differences in cost calculated for "Megabit" service and the "Megasubscriber" services (i.e. what cost-causative differences are there between these two services?)?

C. Are these referenced cost figures the "direct" (i.e. TSLRIC) costs of "Megabit" service and "Megasubscriber" service? If not, please provide the "direct" (i.e. TSLRIC) costs of these services.

RESPONSE:

A. Please see Confidential Attachments A and B. (Confidential Attachments A and B are included in CD provided herein.)

B. Megabit Subscriber Service is a dedicated "always on" service. It has a 1 to 1 configuration meaning that the number of subscriber lines is equal to the number of modems in the central office equipment. MegaSubscriber service is a modem pooling arrangement. In this configuration the number of subscriber lines is greater than the number of modems in the central office equipment. If no modem is available a signal is sent to the subscriber's modem indicating no connection can be made.

Cost differences can be attributed to differences in the service offerings, dedicated vs. pooled (or concentrated). Megabit Service, because it is dedicated, requires more modems, different equipment cards and different bay configuration.

C. Yes.

Respondent: Jennifer Peppers, Cost Interface Manager

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IT CONTAINS INFORMATION CLAIMED TO BE
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**COLLOCATION:
LINE SHARING**

**Arizona
February 2001
Study ID #4702**

**QWEST CORPORATION
Policy and Law**

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Inputs

JURISDICTION Arizona ▼	Telephone Plant Index (T) Base Year (From): 1999 ▼ Study Year (To): 2001 ▼	Operating Expenses (MR5 Report)	Investments (MR2A Report)
Capital Costs	Cost Savings and Inflation	Current To Book Ratio	Adjustments
		Telephone Plant Index	

Operating Expenses - Sec. B	Investments and Capital Costs - Sec. C	Asset Related Expenses - Sec. D	Denominator Development
Factor Development - Sec. A1	Summary		

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Inputs

JURISDICTION Arizona ▼	Telephone Plant Index (T) Base Year (From): 1999 ▼ Study Year (To): 2001 ▼	Operating Expenses (MR5 Report)	Investments (MR2A Report)	
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Works

Operating Expenses - Sec. B	Investments and Capital Costs - Sec. C	Asset Related Expenses - Sec. D	Denominator Development
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Factor Development - Sec. A1	Summary
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ACC STAFF PRICING PROPOSAL

	(1) T-00000B-97-238 271 All Rates Exhibit A 2/12/2001		(2) T-00000-00-0194 Testimony of Maureen Arnold Exhibit MA-1A 4/16/01		(3) U-3021-96-448 U-3021-96-448- et. al. Current Rates		(4) Joint AT&T/ Worldcom/XO Pricing Proposal		(5) ACC Staff Pricing Proposal	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
INTERCONNECTION										
Entrance Facilities										
DS1	\$89.42	\$256.87	\$92.18	\$218.84	\$89.42	\$256.87	\$0.00	\$0.00	\$38.72	\$91.91
DS3	\$357.16	\$256.87	\$486.15	\$414.26	\$357.16	\$256.87	\$0.00	\$0.00	\$204.18	\$173.99
Direct Trunked Transport										
DS0					\$5.05				**	
DS0 Over 0 to 8 Miles - Fixed							\$12.40		**	
DS0 Over 0 to 8 Miles - per mile							\$0.06		**	
DS0 Over 8 to 25 Miles - Fixed							\$12.41		**	
DS0 Over 8 to 25 Miles - per mile							\$0.06		**	
DS0 Over 25 to 50 Miles - Fixed							\$12.43		**	
DS0 Over 25 to 50 Miles - per mile							\$0.05		**	
DS0 Over 50 Miles - Fixed							\$12.41		**	
DS0 Over 50 Miles - per mile							\$0.03		**	
DS1 Over 0 to 8 Miles - Fixed	\$33.98		\$33.05		\$35.98		\$21.22		**	
DS1 Over 0 to 8 Miles - per mile	\$0.65		\$1.56		\$0.65		\$0.86		**	
DS1 Over 8 to 25 Miles - Fixed	\$35.99		\$33.33		\$35.99		\$21.38		**	
DS1 Over 8 to 25 Miles - per mile	\$0.94		\$1.26		\$0.94		\$0.70		**	
DS1 Over 25 to 50 Miles - Fixed	\$36.00		\$33.81		\$36.00		\$21.66		**	
DS1 Over 25 to 50 Miles - per mile	\$1.75		\$2.28		\$1.75		\$1.27		**	
DS1 Over 50 Miles - Fixed	\$36.00		\$33.78		\$36.00		\$21.64		**	
DS1 Over 50 Miles - per mile	\$1.57		\$1.19		\$1.59		\$0.67		**	
DS3 Over 0 to 8 Miles - Fixed	\$243.17		\$210.28		\$243.17		\$142.72		**	
DS3 Over 0 to 8 Miles - per mile	\$13.32		\$65.55		\$13.32		\$42.03		**	
DS3 Over 8 to 25 Miles - Fixed	\$246.16		\$213.45		\$246.15		\$142.69		**	
DS3 Over 8 to 25 Miles - per mile	\$15.90		\$20.30		\$15.90		\$13.70		**	
DS3 Over 25 to 50 Miles - Fixed	\$250.66		\$196.74		\$250.66		\$133.59		**	
DS3 Over 25 to 50 Miles - per mile	\$22.91		\$25.43		\$22.91		\$16.22		**	
DS3 Over 50 Miles - Fixed	\$249.26		\$207.61		\$249.26		\$140.93		**	
DS3 Over 50 Miles - per mile	\$22.49		\$17.49		\$22.49		\$11.00		**	
Multiplexing										
DS3 to DS1 per system	\$196.85	\$164.00	\$246.64	\$267.45	\$196.85	\$164.00	\$172.65	\$187.22	\$103.59	\$112.33
Local Traffic										
End office call termination, per minute of use	\$0.0028		\$0.002207				\$0.00121		\$0.00	
Tandem Switched Transport										
Tandem switching, per minute of use	\$0.0014		\$0.001653				\$0.00052		\$0.00	
Tandem Transmission										
Over 0 to 8 Miles - Fixed, per mou	\$0.00088		\$0.000485				\$0.000340		**	
Over 0 to 8 Miles - per mile	\$0.00088		\$0.000045				\$0.000032		**	
Over 8 to 25 Miles - Fixed, per mou	\$0.00088		\$0.000494				\$0.000346		**	
Over 8 to 25 Miles - per mile	\$0.00088		\$0.000023				\$0.000016		**	

ACC STAFF PRICING PROPOSAL

	(1) T-00000B-97-238 271 All Rates		(2) T-00000-00-0194 Testimony of Maureen Arnold Exhibit MA-1A 4/16/01		(3) U-3021-96-448 U-3021-96-448- et. al. Current Rates		(4) Joint AT&T/ Worldcom/XO Pricing Proposal		(5) ACC Staff Pricing Proposal	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
Trunk Nonrecurring Charges										
Over 25 to 50 Miles - Fixed, per mou	\$0.00088		\$0.000477				\$0.000334		**	
Over 25 to 50 Miles - per mile		\$323.03	\$0.000012	\$353.67			\$0.000008	\$7.60	**	\$148.54
Over 50 Miles - Fixed, per mou	\$0.00088	\$10.21	\$0.000461	\$5.90			\$0.000323	\$0.53	**	\$2.48
Over 50 Miles - per mile			\$0.000004				\$0.000003	\$7.60	**	\$151.39
DS1 Interface, First Trunk									**	\$5.33
DS1 Disconnect		\$331.71		\$12.69					**	
DS3 Interface, First Trunk		\$18.27							**	
DS3 Disconnect									**	
DS1 Trunk Rearrangement									**	
First Trunk				\$176.84					**	\$74.27
Each Additional Trunk				\$2.95					**	\$1.24
DS3 Trunk Rearrangement				\$180.23					**	\$75.70
First Trunk				\$6.35					**	\$2.67
Each Additional Trunk									**	
Miscellaneous Charges									**	
Expedite Charge (LIS Trunks)									**	
Expedite Charge (LIS Trunks)	Qwest's AZ Sw Acc Tariff 5.2.2						\$0.00	\$0.00	**	
Cancellation Charge (LIS Trunks)	Qwest's AZ Sw Acc Tariff 5.2.3						\$0.00	\$0.00	**	
Construction Charges	ICB						\$0.00	\$0.00	**	
IntraLATA Toll Traffic									**	
Transit Traffic									**	
Exchange Service (EAS/Local) Transit									**	
Local Transit Assumed Mileage	\$0.00932								**	
IntraLATA Toll									**	
IntraLATA Toll Assumed Mileage	Qwest's AZ Switched Access Tariff								**	
Jointly Provided Switched Access	9 Miles								**	
Category 11 Mechanized Record Charge, per Record	Qwest's AZ Switched Access Tariff								**	
Local Transit	\$0.0025								**	
	See Tandem Switching & Tandem Transmission Rates								**	
LIS EICT (when used for collocation)									**	
DS1	\$4.28	\$256.87	\$10.24	\$161.70	\$4.28	\$256.87	\$0.00	\$0.00	\$4.30	\$67.91
DS3	\$14.98	\$269.78	\$47.99	\$357.12	\$14.98	\$269.78	\$0.00	\$0.00	\$20.16	\$149.99
Interconnection Tie Pairs (ITP) (Optional)										
Per DS1			\$1.58						\$0.66	
Per DS3			\$15.92						\$6.69	
Channel Regeneration (Optional)										
DS1 Regeneration	\$9.45	\$480.05	\$9.45	\$480.05					\$3.97	\$201.62
DS3 Regeneration	\$34.16	\$1,807.55	\$34.16	\$1,807.55					\$14.35	\$759.17

ACC STAFF PRICING PROPOSAL

(1) T-00000B-97-238 (2) T-00000-00-0194 (3) U-3021-96-448 (4) Joint AT&T/
 271 Testimony of Maureen Arnold U-3021-96-448- et. al. Current Rates Worldcom/XO
 All Rates Exhibit A 2/12/2001 Pricing Proposal ACC Staff
 Pricing Proposal

	(1) Recurring	(2) Recurring	(3) Recurring	(4) Recurring	Recurring	NRC
COLLOCATION						
ALL COLLOCATION						
Quote Preparation Fee					\$4,380.68	\$857.13
Augment QPF						\$214.28
Collocation Entrance Facility, per fiber pair						
Standard per Fiber pair		\$15.17				\$736.94
Cross Connect per Fiber		\$22.75				\$991.10
Express per Cable		\$240.26				\$5,249.97
Element Group 1, per fiber pair	\$1.52		\$1,184.74			
Entrance Facility - Element Group 2						
Manhole, per Month, per Manhole	\$13.81					
Handhold, per Month, per Handhold	\$7.61					
Conduit/innerduct POI to vault, per foot	\$0.21					
Core drill, per occurrence			\$181.57			
Riser, vault to equipment, per foot	\$0.24					
Fiber Optic cable, per 24, per foot	\$0.03					
Fiber placement in conduit & riser, per foot	\$0.83					
Copper 25 pair, per foot	\$0.006					
Copper placement conduit & reser, per foot	\$0.83					
Coax placement, per foot	\$0.10					
Cable Splicing						
Fiber - Per Set-Up					\$474.74	\$425.66
Per Fiber Spliced					\$37.95	\$34.03
Per Splice - Copper						
-48 Volt DC Power Usage, per Ampere, per Month						
Power Plant, per amp	\$12.89					
<60 amps		\$11.36				
>60 amps						
=60 amps						
Power Usage Less Than 60 Amps, per Amp		\$3.69				
Power Usage More Than 60 Amps, per Amp		\$7.37				
AC Power Feed (Backup Power)						
AC Power Feed - per Amp, per Month						
120 V						
208 V, Single Phase		\$19.26				
208 V, Three Phase		\$33.38				
240 V, Single Phase		\$57.75				
240 V, Three Phase		\$38.52				
480 V, Single Phase		\$66.64				
480 V, Three Phase		\$133.28				
-48 Volt DC Power Cable, per foot Per A & B Feeder						
20 Amp Feed	\$0.21					
40 Amp Feed	\$0.29					
60 Amp Feed	\$0.35					
		\$59.14				
		\$80.69				
		\$95.34				
		\$0.21				
		\$0.29				
		\$0.35				
		\$12.89				
		\$375.40				
		\$15.79				
		\$45.64				
		\$1,381.54				
		\$1,232.89				
		\$1,658.09				
		\$8,783.09				
		\$15.17				
		\$22.75				
		\$240.26				
		\$1.52				
		\$1,184.74				
		\$13.81				
		\$7.61				
		\$0.21				
		\$0.24				
		\$0.03				
		\$0.83				
		\$0.006				
		\$0.83				
		\$0.10				
		\$375.40				
		\$15.79				
		\$45.64				
		\$1,381.54				
		\$1,232.89				
		\$1,658.09				
		\$8,783.09				
		\$15.17				
		\$22.75				
		\$240.26				
		\$1.52				
		\$1,184.74				
		\$13.81				
		\$7.61				
		\$0.21				
		\$0.24				
		\$0.03				
		\$0.83				
		\$0.006				
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		\$0.10				
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		\$0.21				
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		\$0.83				
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		\$0.83				
		\$0.10				
		\$375.40				
		\$15.79				
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		\$1,184.74				
		\$13.81				
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		\$0.21				
		\$0.24				
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		\$0.21				
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		\$0.03				
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		\$0.10				
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		\$8,783.09				
		\$15.17				
		\$22.75				
		\$240.26				
		\$1.52				
		\$1,184.74				
		\$13.81				
		\$7.61				
		\$0.21				
		\$0.24				
		\$0.03				
		\$0.83				
		\$0.006				
		\$0.83				
		\$0.10				
		\$375.40				
		\$15.79				
		\$45.64				
		\$1,381.54				
		\$1,232.89				
		\$1,658.09				
		\$8,783.09				
		\$15.17				
		\$22.75				
		\$240.26				
		\$1.52				
		\$1,184.74				
		\$13.81				
		\$7.61				
		\$0.21				
		\$0.24				
		\$0.03				
		\$0.83				
		\$0.006				
		\$0.83				
		\$0.10				
		\$375.40				
		\$15.79				
		\$45.64				
		\$1,381.54				
		\$1,232.89				
		\$1,658.09				
		\$8,783.09				
		\$15.17				
		\$22.75				
		\$240.26				
		\$1.52				
		\$1,184.74				
		\$13.81				
		\$7.61				
		\$0.21				
		\$0.24				
		\$0.03				
		\$0.83				
		\$0.006				
		\$0.83				
		\$0.10				
		\$375.40				
		\$15.79				

ACC STAFF PRICING PROPOSAL

(1) T-00000B-97-238
271
All Rates

(2) T-00000-00-0194
Testimony of
Maureen Arnold
Exhibit MA-1A 4/16/01

(3) U-3021-96-448
U-3021-96-448- et. al.
Current Rates

(4) Joint AT&T/
Worldcom/XO
Pricing Proposal

(5) ACC Staff
Pricing Proposal

	(1) T-00000B-97-238 271 All Rates		(2) T-00000-00-0194 Testimony of Maureen Arnold Exhibit MA-1A 4/16/01		(3) U-3021-96-448 U-3021-96-448- et. al. Current Rates		(4) Joint AT&T/ Worldcom/XO Pricing Proposal		(5) ACC Staff Pricing Proposal	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
100 Amp Feed	\$0.22	\$ 133.28								
200 Amp Feed	\$0.35	\$ 208.78								
300 Amp Feed	\$0.48	\$ 288.33								
400 Amp Feed	\$0.62	\$ 372.89								
	\$0.03				\$0.03					
AC Power Feed, per Watt, per Month										
AC Power Feed, per foot per A&B Feeder										
20 Amp, Single Phase	\$0.02	\$9.78	\$0.0146	\$7.98			\$0.0109	\$7.16	\$0.01	\$3.35
20 Amp, Three Phase	\$0.02	\$11.08	\$0.0181	\$9.90			\$0.0135	\$8.87	\$0.01	\$4.16
30 Amp, Single Phase	\$0.02	\$10.21	\$0.0157	\$8.61			\$0.0117	\$7.72	\$0.01	\$3.62
30 Amp, Three Phase	\$0.02	\$12.38	\$0.0216	\$11.82			\$0.0161	\$10.60	\$0.01	\$4.96
40 Amp, Single Phase	\$0.02	\$11.23	\$0.0185	\$10.12			\$0.0138	\$9.07	\$0.01	\$4.25
40 Amp, Three Phase	\$0.02	\$13.82	\$0.0254	\$13.93			\$0.0189	\$12.49	\$0.01	\$5.85
50 Amp, Single Phase	\$0.02	\$12.52	\$0.0219	\$12.01			\$0.0163	\$10.76	\$0.01	\$5.04
50 Amp, Three Phase	\$0.03	\$15.74	\$0.0306	\$16.76			\$0.0228	\$15.03	\$0.01	\$7.04
60 Amp, Single Phase	\$0.02	\$13.58	\$0.0248	\$13.58			\$0.0185	\$12.17	\$0.01	\$5.70
60 Amp, Three Phase	\$0.03	\$17.46	\$0.0352	\$19.29			\$0.0266	\$17.30	\$0.01	\$8.10
100 Amp, Single Phase	\$0.03	\$15.78	\$0.0307	\$16.81			\$0.0229	\$15.07	\$0.01	\$7.06
100 Amp, Three Phase	\$0.04	\$22.18	\$0.0479	\$26.24			\$0.0357	\$23.53	\$0.02	\$11.02
Inspector Labor, per Half Hour										
Regular Hours Rate		\$24.49		\$31.18		\$24.49		\$28.60		\$201.62
After Hours Rate, minimum 3 hours		\$36.24		\$38.96		\$36.24		\$36.82		\$759.17
Interconnection Tie Pairs (ITP)										
Per DS1		\$1.58		\$1.58				\$1.33		\$0.66
Per DS3		\$15.92		\$15.92				\$13.39		\$6.69
EICT Channel Termination										
2 wire										
4 wire										
DS1 EICT						\$383.30		\$0.00		\$0.00
DS3 EICT						\$383.30		\$0.00		\$0.00
Channel Regeneration										
DS1 Regeneration	\$6.30		\$9.45	\$480.05	\$6.30		\$0.00	\$0.00	\$3.97	\$201.62
DS3 Regeneration	\$41.32		\$34.16	\$1,807.55	\$41.32		\$0.00	\$0.00	\$14.35	\$759.17
Collocation Terminations - DS0										
Block Termination	\$1.29	\$636.68								
Per Termination	\$0.01	\$5.19								
Cable Placement per 100 Pair Block, OR			\$0.5701	\$243.35			\$0.4327	\$218.19	\$0.24	\$102.21
Cable Placement per Termination			\$0.0107	\$4.57			\$0.0081	\$4.09	\$0.00	\$1.92
Cable per 100 Pair Block, OR			\$0.7333	\$313.03			\$0.5567	\$280.66	\$0.31	\$131.47
Cable per Termination			\$0.0100	\$4.29			\$0.0076	\$3.84	\$0.00	\$1.80
Blocks per 100 Pair Block, OR			\$1.2786	\$545.80			\$0.7897	\$398.15	\$0.54	\$229.24
Blocks per Termination			\$0.00175	\$7.48			\$0.0108	\$5.45	\$0.00	\$3.14

ACC STAFF PRICING PROPOSAL

(5)

(4)

(3)

(2)

(1)

ACC Staff
Pricing Proposal

Joint AT&T/
Worldcom/XO
Pricing Proposal

U-3021-96-448
U-3021-96-448- et. al.
Current Rates

T-00000-00-0194
Testimony of
Maureen Arnold
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T-00000B-97-238
271
All Rates
Exhibit A 2/12/2001

	(1)		(2)		(3)		(4)		(5)	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
After Hours Rate		\$31.57		\$37.43		\$31.57		\$33.56		
Training Labor, per Half Hour										
Regular Hours Rate		\$23.95		\$27.97		\$23.95		\$25.08		
Equipment Bay -recurring, per Shelf										
Regular Hours Rate	\$6.41		\$3.75		\$6.41		\$3.16		\$1.58	
Engineering Labor, per Half Hour										
Regular Hours Rate		\$24.55		\$30.18		\$24.55		\$27.06		
After Hours Rate		\$35.25		\$38.96		\$35.25		\$34.93		
Installation Labor, per Half Hour										
Regular Hours Rate		\$23.73		\$31.89		\$23.73		\$28.60		
After Hours Rate		\$33.20		\$41.07		\$33.20		\$36.82		
Floor Space Lease, per Square Foot										
Zone 1	\$2.75		\$3.96				\$2.87		\$1.66	
Zone 2	\$2.26									
Zone 3	\$2.06									
48 Volt DC Power Cables										
20A Power Feed, per feed		\$10.09		\$5,528.47		\$4,923.58		\$7.47		\$2,321.96
30A Power Feed, per feed		\$11.53		\$6,316.35		\$5,567.14		\$8.44		\$2,652.87
40A Power Feed, per feed		\$14.06		\$7,706.09		\$6,491.53		\$9.85		\$3,236.56
60A Power Feed, per feed		\$17.54		\$9,613.92		\$7,935.89		\$12.04		\$4,037.85
CAGELESS COLLOCATION										
Quote Preparation Fee										
ICB				\$4,380.68				\$857.13		\$1,839.89
Space Construction										
5 year payments (recurring for 5 yrs) on-going maintenance	ICB									
Space Construction (Standard 40 Amp Power Feed)										
2 Bays and 1 - 40A Power Feed	ICB									
Adjustment for 20A Initial Power Feed		\$54.42		\$29,823.10		\$22,866		\$22.86		\$12,525.70
Adjustment for 30A Initial Power Feed		(\$3.97)		(\$2,177.62)		(\$1,671)		(\$1.67)		(\$914.60)
Adjustment for 40A Initial Power Feed		(\$2.54)		(\$1,389.75)		(\$1,071)		(\$1.07)		(\$583.70)
Adjustment for 60A Initial Power Feed		\$3.48		\$1,907.82						
Adjustment for Each Additional Bay		\$5.52		\$6,024.83						
Each Additional 20A Power Feed		\$10.09		\$5,628.47					\$1.46	\$801.28
Each Additional 30A Power Feed		\$11.53		\$6,316.35					\$2.32	\$2,530.43
Each Additional 40A Power Feed		\$14.06		\$7,706.09					\$4.24	\$2,363.96
Each Additional 60A Power Feed		\$17.54		\$9,613.92					\$4.84	\$2,652.87
Zone 1	\$2.75		\$3.96						\$5.91	\$3,236.56
Zone 2	\$2.26								\$7.37	\$4,037.85

Included in Space Construction

ACC STAFF PRICING PROPOSAL

(1) T-00000B-97-238 All Rates
 (2) T-00000-00-0194 Testimony of Maureen Arnold Exhibit MA-1A 4/16/01
 (3) U-3021-96-448 U-3021-96-448- et. al. Current Rates
 (4) Joint AT&T/Worldcom/XO Pricing Proposal
 (5) ACC Staff Pricing Proposal

	(1)		(2)		(3)		(4)		(5)	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
2/0 AWG - per Foot	\$0.1194	\$5.97	\$0.0230	\$12.59			\$0.0171	\$11.29	\$0.01	\$5.29
1/0 AWG - per Foot	\$0.1763	\$8.82	\$0.0382	\$20.96			\$0.0285	\$18.79	\$0.02	\$8.80
4/0 AWG - per Foot	\$0.2096	\$10.48	\$0.0435	\$23.81			\$0.0324	\$21.35	\$0.02	\$10.00
350 kcmil - per Foot	\$0.3228	\$16.14	\$0.0603	\$33.04			\$0.0449	\$29.62	\$0.03	\$13.88
500 kcmil - per Foot	\$0.3765	\$18.63	\$0.0672	\$36.81			\$0.0501	\$33.01	\$0.03	\$15.46
750 kcmil - per Foot	\$0.4672	\$23.36	\$0.1029	\$56.40			\$0.0767	\$50.57	\$0.04	\$23.69
Humidification per Leased Physical Space	\$28.03				\$28.03				**	**
ICDF Collocation			See Note 1	See Note 1					**	**
Adjacent Collocation		ICB	ICB	ICB					**	**
REMOTE COLLOCATION & REMOTE ADJ. COLLOCATION		ICB	ICB	ICB					**	**
CLEC-to-CLEC Connections		\$1,052.79		\$1,353.22				\$641.89		\$568.35
CLEC to CLEC Quote Preparation Fee		\$3,770.95								
Design Engineering & Installation - No Cables										
Cable Racking (Per Foot)										
DS0	\$0.1378		\$0.17316				\$0.15324		\$0.07	
DS1	\$0.1492		\$0.18388				\$0.16211		\$0.08	
DS3	\$0.1229		\$0.15906				\$0.14155		\$0.07	
Virtual Connections (Connections only; No Cables)										
DS0 (Per 100 Connections)		\$272.99		\$223.03				\$199.97		\$93.67
DS1 (Per 28 Connections)		\$121.34		\$101.73				\$91.21		\$42.73
DS3 (Per 1 Connection)		\$12.72		\$8.80				\$7.89		\$3.70
Cable Hole (if Applicable)		\$439.32		\$425.99				\$381.95		\$260.00
CLEC to CLEC Cross-Connection				\$255.25						\$107.21
UNBUNDLED NETWORK ELEMENTS (UNES)										
Interconnection Tie Pairs (ITP)-Per Termination										
DS0 2-wire	ICB	ICB	\$0.51				\$0.00	\$0.00	\$0.21	
DS0 4-wire	ICB	ICB	\$0.51				\$0.00	\$0.00	\$0.21	
DS1 Per each Termination	ICB	ICB	\$1.58				\$0.00	\$0.00	\$0.66	
DS3 Per each Termination	ICB	ICB	\$15.92				\$0.00	\$0.00	\$6.69	
Unbundled Loops										
2 Wire Voice Grade										
Zone 1	\$18.96		\$23.07		\$21.98		\$10.10		\$11.89	
Zone 2	\$34.94		\$28.64		\$18.96		\$7.34		\$9.35	
Zone 3	\$56.63		\$42.14		\$34.94		\$11.23		\$14.20	
4 Wire Voice Grade					\$56.53		\$32.06		\$36.34	
Zone 1	\$19.88		\$46.63		\$22.90		\$13.13		\$23.27	
Zone 2	\$35.86		\$57.76				\$9.54		\$18.21	
							\$14.60		\$27.88	

ACC STAFF PRICING PROPOSAL

	(1) T-00000B-97-238 271 All Rates		(2) T-00000-00-0194 Testimony of Maureen Arnold Exhibit MA-1A 4/16/01		(3) U-3021-96-448 U-3021-96-448- et. al. Current Rates		(4) Joint AT&T/ Worldcom/XO Pricing Proposal		(5) ACC Staff Pricing Proposal	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC

POTS/ISDN BRI Migration (UNE Loop)										
POTS/ISDN BRI Installation (UNE Loop)										
POTS/ISDN BRI Disconnect (UNE Loop)										
Residence 4-wire		\$41.81		\$87.91		\$41.82		\$1.76		**
Business 4-wire		\$46.92		\$87.91		\$46.92		\$1.70		**
4 Wire Migration (UNE Loop)								\$1.53		**
4 Wire Install (UNE Loop)										\$36.92
4 Wire Disconnect (UNE Loop)										\$36.92
Each Additional Loop										**
Basic Installation with Performance Testing										**
First Loop		\$146.06		\$191.45		\$191.45				\$31.81
Each Additional Loop		\$89.26		\$137.36		\$137.36				*
Coordinated Installation with Cooperative Testing										*
First Loop		\$238.09		\$231.24		\$231.24				\$80.41
Each Additional Loop		\$197.97		\$137.36		\$137.36				\$57.69
Coordinated Installation without Cooperative Testing										*
First Loop		\$111.33		\$94.96		\$94.96				\$39.88
Each Additional Analog Loop		\$94.31		\$82.79		\$82.79				\$34.77
Coordinated Installation with Cooperative Testing - No Dispatch										**
First Loop		\$214.88								**
Each Additional Loop		\$153.78								**
Basic Installation with Cooperative Testing										\$80.41
First Loop		\$149.62		\$143.52		\$143.52				\$57.69
Each Additional Loop		\$117.63		\$110.31		\$110.31				*
Migration Disconnect										\$23.40
Basic Installation with Performance Testing										\$32.27
First Loop		\$341.96		\$276.96		\$276.96				\$16.25
Each Additional Loop		\$286.80		\$202.83		\$202.83				*
Coordinated Installation with Cooperative Testing										*
First Loop		\$381.19		\$316.75		\$316.75				\$116.32
Each Additional Analog Loop		\$325.44		\$202.83		\$202.83				\$85.19
Coordinated Installation without Cooperative Testing										*
First Loop		\$154.59		\$152.59		\$152.59				\$133.04

See recurring charges in Sections 9.2.1 - 9.2.3 above

ACC STAFF PRICING PROPOSAL

(1)

(2)

(3)

(4)

(5)

T-00000B-97-238
All Rates
Exhibit A 2/12/2001

T-00000-00-0194
Testimony of
Maureen Arnold
Exhibit MA-1A 4/16/01

U-3021-96-448
U-3021-96-448- et. al.
Current Rates

Joint AT&T/
Worldcom/XO
Pricing Proposal

ACC Staff
Pricing Proposal

	(1)		(2)		(3)		(4)		(5)	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
Option 2B	\$3.83	\$2,309.64								
Option 3A	\$2.19	\$1,322.85								
Option 3B	\$4.49	\$2,711.59								
POTS Splitter Options										
Splitter in the Common Area			\$8.57	\$3,175.97			\$5.25	\$2,847.60		
Data to 410 Block			\$8.99	\$3,333.21			\$5.51	\$2,988.58		
Data Direct to CLEC										
Splitter on the IDF			\$2.73	\$1,010.84			\$1.67	\$906.32		
Data to 410 Block			\$5.11	\$1,892.62			\$3.13	\$1,696.93		
Data Direct to CLEC										
Splitter on the MDF			\$2.81	\$1,039.82			\$1.72	\$923.31		
Data to 410 Block			\$6.03	\$2,233.08			\$3.69	\$2,002.20		
Data Direct to CLEC										
Additional Testing										
Splitter shelf charge										
POTS Splitter Charge - Per Splitter										
Engineering										
New Bay										
Existing Bay										
Trouble Isolation Charge										
Under Development										
Existing										
New Bay										
Existing Bay										
Trouble Isolation Charge										
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Existing Bay										

ACC STAFF PRICING PROPOSAL

	(1) T-00000B-97-238 271 All Rates		(2) T-00000-00-0194 Testimony of Maureen Arnold Exhibit MA-1A 4/16/01		(3) U-3021-96-448 U-3021-96-448- et. al. Current Rates		(4) Joint AT&T/ Worldcom/XO Pricing Proposal		(5) ACC Staff Pricing Proposal	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
DS3 UDIT	\$243.17	\$302.91	\$210.28	\$351.39	\$243.17		\$142.72	\$7.60	**	**
DS3 Over 0 to 8 Miles - Fixed	\$13.32		\$65.55		\$13.32		\$42.03		**	**
DS3 Over 0 to 8 Miles - per mile	\$246.16		\$213.45		\$246.15		\$142.69		**	**
DS3 Over 8 to 25 Miles - Fixed	\$15.90		\$20.30		\$15.90		\$13.70		**	**
DS3 Over 8 to 25 Miles - per mile	\$250.66		\$196.74		\$250.66		\$133.59		**	**
DS3 Over 25 to 50 Miles - Fixed	\$22.91		\$25.43		\$22.91		\$16.22		**	**
DS3 Over 25 to 50 Miles - per mile	\$249.26		\$207.61		\$249.26		\$140.93		**	**
DS3 Over 50 Miles - Fixed	\$22.49		\$17.49		\$22.49		\$11.00		**	**
DS3 Over 50 Miles - per mile									**	**
DS3 Interoffice Transport - Disconnect									**	**
OC3 UDIT	\$868.65	\$331.92	\$794.64	\$351.39			\$582.00		**	**
OC-3 Over 0 to 8 Miles - Fixed	\$262.58		\$252.46				\$170.97		**	**
OC-3 Over 0 to 8 Miles - per mile	\$875.83		\$801.21				\$586.30		**	**
OC-3 Over 8 to 25 Miles - Fixed	\$75.28		\$67.90				\$47.12		**	**
OC-3 Over 8 to 25 Miles - per mile	\$836.86		\$765.56				\$563.07		**	**
OC-3 Over 25 to 50 Miles - Fixed	\$96.00		\$92.37				\$61.62		**	**
OC-3 Over 25 to 50 Miles - per mile	\$867.72		\$788.37				\$577.92		**	**
OC-3 Over 50 Miles - Fixed	\$60.02		\$57.09				\$36.76		**	**
OC-3 Over 50 Miles - per mile									**	**
OC-12 UDIT	\$2,457.02	\$331.92	\$2,247.68	\$351.39			\$1,665.13		**	**
OC-12 Over 0 to 8 Miles - Fixed	\$88.38		\$87.64				\$54.45		**	**
OC-12 Over 0 to 8 Miles - per mile	\$2,457.02		\$2,247.68				\$1,665.13		**	**
OC-12 Over 8 to 25 Miles - Fixed	\$93.78		\$85.54				\$56.69		**	**
OC-12 Over 8 to 25 Miles - per mile	\$2,457.02		\$2,247.68				\$1,665.13		**	**
OC-12 Over 25 to 50 Miles - Fixed	\$100.38		\$98.38				\$61.35		**	**
OC-12 Over 25 to 50 Miles - per mile	\$2,457.02		\$2,247.68				\$1,665.13		**	**
OC-12 Over 50 Miles - Fixed	\$118.80		\$115.44				\$72.38		**	**
OC-12 Over 50 Miles - per mile									**	**
Above OC-12 UDIT			ICB	ICB					**	**
Common Transport per minute per leg					\$0.00088				**	**
Extended Unbundled Dedicated Interoffice Transport									**	**
DS1 E-UDIT	\$57.21	\$68.86	\$59.13	\$409.62			\$0.00		**	**
DS3 E-UDIT	\$227.61	\$379.33	\$335.36	\$409.62			\$0.00		**	**
OC-3 E-UDIT	\$1,022.12	\$834.05	\$734.07	\$409.62			\$0.00		**	**
OC-12 E-UDIT	\$1,358.64	\$1,566.17	\$1,377.93	\$409.62			\$0.00		**	**
Above OC-12 E-UDIT			ICB	ICB			\$0.00		**	**
DS0 UDIT Low Side Channelization	\$14.99		\$13.90						**	**
Low Side Channel Performance			\$8.87						**	**
Low Side Channel Performance with Multiplexing									**	**
DS1/DS0 Low Side Channelization	\$8.55	\$231.47							**	**
Multiplexing DS3 to DS1	\$196.85	\$164.00	\$246.64		\$196.85	\$164.00			**	**
									\$103.59	

ACC STAFF PRICING PROPOSAL

(5)

(4)

(3)

(2)

(1)

ACC Staff
Pricing Proposal

Joint AT&T/
Worldcom/XO
Pricing Proposal

U-3021-96-448
U-3021-96-448- et. al.
Current Rates

T-00000-00-0194
Testimony of
Maureen Arnold
Exhibit MA-1A 4/16/01

T-00000B-97-238
271
All Rates

	(1)		(2)		(3)		(4)		(5)	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
Shared Transport Per Minute of Use - TELRIC Based Rate	\$0.0012008		\$0.001573				\$0.000074		**	
Unbundled Customer Controlled Rearrangement Element (UUCRE)									**	**
DS1 Port	ICB		ICB	ICB					**	**
DS3 Port	ICB		ICB	ICB					**	**
Dial Up Access	ICB		ICB	ICB					**	**
Attendant Access	ICB		ICB	ICB					**	**
Virtual Ports	ICB		ICB	ICB					**	**
Local Tandem Switching									**	**
DS1 Local Message Trunk Port		\$337.96	\$59.28	\$219.99			\$41.50	\$17.81	**	**
DS1 Local Message Trunk Port - Disconnect		\$278.91		\$210.14				\$13.12	**	**
Trunk Group - First Trunk		\$8.64							**	**
Message Trunk Group - Each Additional Trunk									**	**
DS1 Trunk Group-Each Additional Trunk-Per Order				\$24.38					**	**
Per minute of use	\$0.0014		\$0.002453				\$0.00052		\$0.00058	**
Local Switching									**	**
Local Switching - TELRIC Based Rates		\$42.58	\$1.33	\$144.93			\$0.90	\$1.68	**	**
Analog Line Side Port, First Port	\$1.61		\$1.33	\$95.34				\$1.57	**	**
Analog Line Side Port, Each Additional	\$0.00								**	**
Analog Line Side Port, Disconnect									**	**
Local Usage, per Minute of Use	\$0.0071		\$0.002684				\$0.00121		\$0.00133	**
Line Port (DS0, Analog, ISLU) Disconnect									**	**
10XXX Direct Dialed Blocking			\$0.08	\$79.66			\$0.00	\$0.00	**	**
Account Codes - per system			\$0.08	\$1.15			\$0.00	\$0.00	**	**
Attendant Access Line - per station line			\$0.13	\$1.01			\$0.00	\$0.00	**	**
Audible Message Waiting			\$3.25	\$238.25			\$0.00	\$0.00	**	**
Authorization Codes - per system			\$0.08				\$0.00	\$0.00	**	**
Auto Call Back			\$0.07	\$0.34			\$0.00	\$0.00	**	**
Automatic Line			\$2.20	\$2,090.41			\$0.00	\$0.00	**	**
Automatic route selection - Common Equip. per sys			\$0.10				\$0.00	\$0.00	**	**
Blocking of pay per call services			\$0.07				\$0.00	\$0.00	**	**
Bridging			\$0.07				\$0.00	\$0.00	**	**
Call Drop			\$0.07	\$0.34			\$0.00	\$0.00	**	**
Call Exclusion - Automatic			\$0.07	\$1.01			\$0.00	\$0.00	**	**
Call Exclusion - Manual			\$0.07	\$0.67			\$0.00	\$0.00	**	**
Call Forward Don't Answer - All Calls			\$0.13				\$0.00	\$0.00	**	**
Call Forwarding Incoming Only			\$0.08				\$0.00	\$0.00	**	**
Call Forwarding Intra Group Only			\$0.08				\$0.00	\$0.00	**	**
Call Forwarding Variable Remote			\$0.11				\$0.00	\$0.00	**	**
Call Forwarding Busy Line	\$0.1128						\$0.00	\$0.00	**	**
Call Forwarding - Busy Line (Expanded)	\$0.1386						\$0.00	\$0.00	**	**
Call Forwarding - Busy Line (External)							\$0.00	\$0.00	**	**

ACC STAFF PRICING PROPOSAL

(1) T-00000B-97-238
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All Rates
Exhibit A 2/12/2001

(2) T-00000-00-0194
Testimony of
Maureen Arnold
Exhibit MA-1A 4/16/01

(3) U-3021-96-448
U-3021-96-448- et. al.
Current Rates

(4) Joint AT&T/
Worldcom/XO
Pricing Proposal

(5) ACC Staff
Pricing Proposal

	(1)		(2)		(3)		(4)		(5)	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
Call Forwarding : Busy Line (External) Don't Answer			\$0.15				\$0.00			
Call Forwarding : Busy Line (Overflow)			\$0.09				\$0.00			
Call Forwarding : Busy Line (Overflow) Don't Answer			\$0.15				\$0.00			
Call Forwarding : Busy Line (Programmable)			\$0.10				\$0.00			
CF Busy Line Don't Answer Programmable - Svc Establishment				\$15.59			\$0.00			
CF Busy Line Don't Answer Programmable - per line				\$1.01			\$0.00			
Call Forwarding : Busy Line Don't Answer (Expanded)				\$37.75			\$0.00			
Call Forwarding : Don't Answer	\$0.1696		\$0.15				\$0.00			
Call Forwarding : Don't Answer (Expanded)			\$0.13				\$0.00			
Call Forwarding : Don't Answer (Programmable)			\$0.13				\$0.00			
Call Forwarding: Variable			\$0.10				\$0.00			
Call Forwarding: Variable no call complete option			\$0.08				\$0.00			
Call Hold			\$0.33				\$0.00			
Call Hold/3-Way/Call Transfer			\$0.09				\$0.00			
Call Park (Basic - Store & Retrieve)			\$0.08				\$0.00			
Call Pickup			\$0.33				\$0.00			
Call Transfer			\$0.08				\$0.00			
Call Waiting Dial Originating			\$0.47				\$0.00			
Call Waiting Indication - per timing state			\$0.09				\$0.00			
Call Waiting Originating			\$0.12				\$0.00			
Call Waiting Terminating - All Calls			\$0.12				\$0.00			
Call Waiting Terminating - Incoming Only			\$0.14				\$0.00			
Call Waiting/Cancel Call Waiting				\$1.01			\$0.00			
CENTREX Common Equipment	\$0.1330						\$0.00			
CENTREX Management System (CMS)				\$1,200.97			\$0.00			
CENTREX Plus DID Numbers per number			\$0.60				\$0.00			
CENTREX Plus to CENTREX Plus			\$0.12				\$0.00			
CENTREX Plus to IC Camer			\$5.49				\$0.00			
CENTREX Plus to PBX/Key Blocked			\$5.49				\$0.00			
CENTREX Plus to PBX/Key Non-Blocked			\$5.49				\$0.00			
CFBL - All Calls			\$0.09				\$0.00			
CBL - Incoming Only			\$0.08				\$0.00			
CFDA Incoming Only			\$0.34				\$0.00			
CLASS - Anonymous Call Rejection	\$0.3937		\$0.11				\$0.00			
CLASS - Call Waiting ID	\$0.0519		\$0.43				\$0.00			
CLASS - Calling Name & Number	\$0.1915		\$0.10				\$0.00			
CLASS - Calling Number Delivery	\$0.0608		\$0.35				\$0.00			
CLASS - Calling Number Delivery Blocking	\$0.3822		\$0.30				\$0.00			
CLASS - Continuous Redial	\$0.5008		\$0.30				\$0.00			
CLASS - Last Call Return	\$0.4258		\$0.10				\$0.00			
CLASS - Priority Calling	\$1.0829		\$0.19				\$0.00			
CLASS - Selective Call Forwarding	\$0.9206		\$0.17				\$0.00			
CLASS - Selective Call Rejection	\$1.7651		\$0.23				\$0.00			
Common Equipment per 1,544 mbps facility (DS1)			\$60.34				\$0.00			
Conference Calling - Meet Me			\$14.60				\$0.00			
Conference Calling - Preset			\$10.68				\$0.00			
Custom Ringing First Line (Short/Long/Short)			\$0.09				\$0.00			
Custom Ringing First Line (Short/Short)			\$0.09				\$0.00			

ACC STAFF PRICING PROPOSAL

(1) T-00000B-97-238 271 All Rates Exhibit A 2/12/2001	(2) T-000000-00-0194 Testimony of Maureen Arnold Exhibit MA-1A 4/16/01	(3) U-3021-96-448 U-3021-96-448- et. al. Current Rates	(4) Joint AT&T/ Worldcom/XO Pricing Proposal	(5) ACC Staff Pricing Proposal
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	Recurring	NRC	Recurring	NRC	Recurring	NRC
Custom Ringing First Line (Short/Short/Long)	\$0.09				\$0.00	
Custom Ringing Second Line (Short/Long/Short)	\$0.09				\$0.00	
Custom Ringing Second Line (Short/Short)	\$0.09				\$0.00	
Custom Ringing Second Line (Short/Short/Long)	\$0.08				\$0.00	
Custom Ringing Third Line (Short/Long/Short)	\$0.08				\$0.00	
Custom Ringing Third Line (Short/Short)	\$0.08				\$0.00	
Custom Ringing Third Line (Short/Short/Long)	\$0.07				\$0.00	
Data Call Protection (DMS 100)	\$1.83	\$0.34			\$0.00	
Dir Sta Self/Busy Lamp Fid per arrangement	\$0.18	\$20.08			\$0.00	
Directed Call Pickup with Barge-in	\$0.10	\$20.08			\$0.00	
Directed Call Pickup without Barge-in	\$0.09	\$40.14			\$0.00	
Distinctive Ring/Distinctive Call Waiting	\$0.09				\$0.00	
Distinctive Ringing	\$1.44				\$0.00	
EBS - Set Interface - per station line	\$0.08				\$0.00	
Executive Busy Override	\$0.07	\$71.60			\$0.00	
Expensive Route Warning Tone - per system	\$0.07	\$44.05			\$0.00	
Facility Restriction Level - per system	\$0.07				\$0.00	
Feature Display	\$0.16	\$0.45			\$0.00	
Group Intercom	\$0.13	\$1.01			\$0.00	
Hot Line - per line	\$0.27				\$0.00	
Hunting Multiposition Circular Hunting	\$0.23	\$38.42			\$0.00	
Hunting Multiposition Hunt Queuing	\$0.27				\$0.00	
Hunting Multiposition Series Hunting	\$3.20	\$38.42			\$0.00	
Hunting Multiposition with Announcement in Queue	\$1.14	\$40.57			\$0.00	
Hunting Multiposition with Music in Queue	\$0.08				\$0.00	
Incoming Calls Barred	\$0.09				\$0.00	
International direct Dial Blocking	\$0.58	\$1.69			\$0.00	
ISDN Short Hunt	\$0.09				\$0.00	
Line Side Answer Supervision	\$21.96	\$175.77			\$0.00	
Loudspeaker Paging - per trunk group	\$0.36	\$0.67			\$0.00	
Make Busy Arrangements - per group	\$0.15	\$0.67			\$0.00	
Make Busy Arrangements - per line	\$0.07	\$0.34			\$0.00	
Message Center - per main station line	\$0.13	\$0.34			\$0.00	
Message Waiting Indication AV	\$0.13	\$23.03			\$0.00	
Message Waiting Visual	\$22.87				\$0.00	
Music On Hold - per system	\$0.07				\$0.00	
Network Speed Call	\$0.08				\$0.00	
Night Service Arrangement	\$0.08				\$0.00	
Outgoing Calls Barred	\$0.13				\$0.00	
Outgoing Trunk Queuing	\$0.13				\$0.00	
Privacy Release	\$0.08	\$0.47			\$0.00	
Query Time	\$0.25	\$0.34			\$0.00	
Speed Calling 1 Digit Controller	\$0.08				\$0.00	
Speed Calling 1 Digit User	\$0.08				\$0.00	
Speed Calling 1# List Individual	\$0.08				\$0.00	
Speed Calling 2 Digit Controller	\$0.08				\$0.00	
Speed Calling 2 Digit User	\$0.08				\$0.00	
Speed Calling 2# List Individual	\$0.08				\$0.00	

ACC STAFF PRICING PROPOSAL

(1)

(2)

(3)

(4)

(5)

T-00000B-97-238
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All Rates

T-00000-00-0194
Testimony of
Maureen Arnold
Exhibit MA-1A 4/16/01

U-3021-96-448
U-3021-96-448- et. al.
Current Rates

Joint AT&T/
Worldcom/XO
Pricing Proposal

ACC Staff
Pricing Proposal

	(1) Recurring	(2) Recurring	(3) Recurring	(4) Recurring	(5) Recurring
	NRC	NRC	NRC	NRC	NRC
First Port	Under Development				**
Each Additional Port	Under Development				**
Digital Trunk Ports					
DS1 Local Message Trunk Port	Under Development				**
DS1 Digital Trunk, Install	Under Development				**
DS1 Digital Trunk, Disconnect	Under Development				**
Message Trunk Group, First Trunk	Under Development				**
Message Trunk Group, Each Additional	Under Development				**
DS1 PRI/ISDN Trunk Port	Under Development				**
Customized Routing					
Development of Custom Line Class Code-DA or OS Routing Only	ICB				**
Installation Charge, per Switch-DA or OS Routing Only	ICB				**
All Other Custom Routing	ICB				**
Common Channel Signaling/SS7					
Entrance Facility DS1, Electrical			\$89.42		\$560.88
Subsequent			\$357.16		\$560.88
Entrance Facility DS3, Electrical			\$35.98		\$0.65
Direct Link Transport			\$35.99		\$0.94
DS1 - over 0 to 8			\$36.00		\$1.75
DS1 - over 8 to 25			\$36.00		\$1.59
DS1 - over 25 to 50					
DS1 - over 50					
DS3 - over 0 to 8			\$243.17		\$13.32
DS3 - over 8 to 25			\$246.15		\$15.90
DS3 - over 25 to 50			\$250.66		\$22.91
DS3 - over 50			\$249.26		\$22.49
Multiplexing					
DS1 to DS0			\$200.08		**
DS3 to DS1			\$196.85		**
CCSAC STP Port					**
CCSAC Options Activation Charge					**
Basic Translations					**
First Activation, per order		\$438.36			**
Each Additional Activation, per order		\$114.83			**
CCSAC Options Database Translations					**
First Activation, per order		\$9.53			**
Each Additional Activation, per order		\$133.90			**
Signal Formulation, ISUP, Per Call Set-Up Request		\$57.20			**
		\$0.0020817			**

ACC STAFF PRICING PROPOSAL

(1) (2) (3) (4) (5)

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All Rates
Exhibit A 2/12/2001

T-00000-00-0194
Testimony of
Maureen Arnold
Exhibit MA-1A 4/16/01

U-3021-96-448
U-3021-96-448- et. al.
Current Rates

Joint AT&T/
Worldcom/XO
Pricing Proposal

ACC Staff
Pricing Proposal

	(1)		(2)		(3)		(4)		(5)	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
DS1 Over 50 Miles - per mile Migration Disconnect	\$1.59		\$1.19					\$19.12		
DS3 EEL Transport				\$351.39						
DS3 Over 0 to 8 Miles - Fixed	\$243.17		\$210.28				\$142.72			
DS3 Over 0 to 8 Miles - per mile	\$13.32		\$65.55				\$42.03			
DS3 Over 8 to 25 Miles - Fixed	\$246.15		\$213.45				\$142.69			
DS3 Over 8 to 25 Miles - per mile	\$15.90		\$20.30				\$13.70			
DS3 Over 25 to 50 Miles - Fixed	\$250.66		\$196.74				\$133.59			
DS3 Over 25 to 50 Miles - per mile	\$22.91		\$25.43				\$16.22			
DS3 Over 50 Miles - Fixed	\$249.26		\$207.61				\$140.93			
DS3 Over 50 Miles - per mile	\$22.49		\$17.49				\$11.00			
Multiplexing										
Multiplexing DS1 to DS0	\$200.08	\$230.93	\$229.32	\$267.45			\$160.52	\$187.22	\$96.31	\$112.33
Multiplexing DS3 to DS1	\$196.85	\$164.00	\$246.64	\$267.45			\$172.65	\$187.22	\$103.59	\$112.33
DS1 Transport Mux				\$257.04						\$107.96
DS3 Transport Mux				\$257.04						\$107.96
DS0 Channel Performance										
DS0 Low Side Channelization	\$14.99		\$13.90							
DS1/DS0 MUX, Low Side Channelization	\$8.55		\$8.87							
Concentration Capability										
Unbundled Packet Switching										
Customer Channel	ICB	ICB	ICB							
Customer Channel and Shared Distribution Loop			\$24.39							
Customer Channel and Unbundled Distribution Loop							\$59.87			
Customer Channel and CLEC Provided Loop							\$126.62			
DSLAM							\$59.87			
Virtual Transport										
Unbundled Packet Switch Loop Capability										
Unbundled Packet Switch Interface Port										
DS3 Interface	ICB	ICB	\$216.14	\$226.51						
DS1 Interface	ICB	ICB	\$140.24	\$226.51						
Unbundled Pack Switch DSLAM Functionality	ICB	ICB	\$21.09							
ANCILLARY SERVICES										
Interim Number Portability										
Number Ported		\$4.47								
Service Establishment per route, per switch		\$20.65								
Service Establishment, Per Ported Number								\$20.65		
Service Establishment, additional number ported or changes to existing number, per number ported								\$4.47		
Coordinated Out of Hours Cut - Non-Sunday/Holiday								\$3.32		

ACC STAFF PRICING PROPOSAL

(1)

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(2)

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Testimony of
Maureen Arnold

(3)

U-3021-96-448

Current Rates

(4)

Joint AT&T/
Worldcom/XO

Pricing Proposal

(5)

ACC Staff
Pricing Proposal

	(1)		(2)		(3)		(4)		(5)	
	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC	Recurring	NRC
Call Branding, Set-Up & Recording Loading Brand/Per Switch		\$10,500.00 \$175.00		\$10,500 \$175						
Access to Poles, Ducts, Conduits and Rights of Way										
Pole Inquiry Fee, per Mile		\$326.04		\$321.59						
Innerduct Inquiry Fee, per Mile		\$391.91		\$386.56						
ROW Inquiry Fee				\$142.86						
ROW Document Preparation				\$142.86						
Field Verification Fee, pr Pole				\$35.72						
Field Verification Fee, per Manhole		\$36.21		\$464.31						
Planner Verification, per Manhole		\$470.74		\$15.93						
Manhole Verification Inspector, per Manhole				\$285.73						
Manhole Make Ready Inspector, per Manhole				\$428.59						
Make-Ready Work, per Foot Innerduct										
Pole Attachment Fee, per Foot, per Year	\$4.29	\$3.00	\$4.34							
Innerduct Occupancy Fee, per Foot, per Year	\$0.36		\$0.37							
Operational Support Systems										
Development & Enhancements, per Order	Under Development									
Ongoing Maintenance, per Order	Under Development									
Daily Usage Record File, per Record	\$0.001100		\$0.0007616							
Trouble Isolation Charge										
Bona Fide Request Process										
Processing Fee		\$2,128.00		\$2,400.07						

NOTE -AT&T/Worldcom/XO Rates developed using the current Qwest wire centers. Qwest is in the process of selling 38 wire centers. Once the sale is complete rates will need to be adjusted.

* Qwest proposed Rates in Column (2) multiplied by 42%. See Direct Testimony of William Dunkel.

** At this time Staff is not proposing a rate for this item.

2/6/01

Inputs

JURISDICTION Arizona ▼	Telephone Plant Index (T Base Year (From): 1999 ▼ Study Year (To): 2001 ▼	Operating Expenses (MR5 Report)	Investments (MR2A Report)
Capital Costs	Cost Savings and Inflation	Current To Book Ratio	Adjustments
			Telephone Plant Index

Operating Expenses
- Sec. B

Investments and
Capital Costs
- Sec. C

Asset Related
Expenses
- Sec. D

Denominator
Development

Factor Development
- Sec. A1

Summary

**THIS SCHEDULE HAS BEEN OMITTED
IT CONTAINS INFORMATION CLAIMED TO BE
PROPRIETARY BY QWEST**

Arizona
Docket No. T-00000A-00-0194
WD 06-154

INTERVENOR: Arizona Corporation Commission

REQUEST NO: 154

With reference to Qwest's response to Data Request WD 4-107 (d), Qwest indicates that its affiliate, Broadband Services, Inc. purchases a subloop from Qwest Corporation on a basis that is similar to Qwest's proposal for line sharing.

A. Please specifically describe what Qwest means by "subloop" in this response (e.g. is this the distribution portion of the loop that extends from the serving area interface (SAI) to the customer's premises?)?

B. Does Broadband Services, Inc. pay Qwest any collocation charges to Qwest when it purchases a subloop from Qwest and uses it to provide services to its subscribers? If yes, please provide a complete list of the collocation charges that apply, separately for non-recurring and recurring charges.

C. Under Qwest's proposal, would any of the Collocation Recurring and Nonrecurring charges shown on Ms. Million's Direct Testimony Exhibit TKM-6 apply to Broadband Services, Inc. when it purchases a subloop from Qwest and uses it to provide services to its subscribers? If yes, please provide a complete list of the collocation charges that would apply, separately for non-recurring and recurring charges.

D. Under Qwest's proposal, would any of the Collocation Recurring and Nonrecurring charges shown on Mr. Kennedy's Direct Testimony Exhibit 1 apply to Broadband Services, Inc. when it purchases a subloop from Qwest and uses it to provide services to its subscribers? If yes, please provide a complete list of the collocation charges that would apply, separately for non-recurring and recurring charges.

E. Qwest's response to Data Request WD 4-122(c) states "There is a separate nonrecurring charge that applies to cover the cost of processing a line sharing order, which includes making the connections in the central office that are necessary to establish DSL service in a line sharing arrangement." Under the Qwest proposal, would this same nonrecurring charge apply to Broadband Services, Inc. when it purchases a subloop from Qwest and uses it to provide services to its subscribers?

RESPONSE:

A. Yes, the term subloop means the distribution portion of the loop.

B. See Confidential Attachment A for the recurring and non-recurring charges Broadband Services, Inc. pays Qwest Corporation for collocation space that it occupies in Qwest's Central Offices. Broadband Services, Inc. must pay Qwest according to the FCC's Affiliate Transactions rules described in response to Data Request WD 4-107(D). (Confidential Attachment A is included in CD provided herein.)

C. Broadband Services, Inc. must pay Qwest according to the FCC's Affiliate

Transactions rules described in response to Data Request WD 4-107(D). Thus, any of the Collocation Recurring and Nonrecurring charges shown on Exhibit TKM-6 could apply to Broadband Services, Inc. depending on what equipment was collocated in a Qwest Central Office, pursuant to the Affiliate Transactions rules.

D. See the response to part C above, the charges shown on Mr. Kennedy's Exhibit 1 are the same as the TELRIC + Common costs shown on Exhibit TKM-6.

E. See the response to part C above, and to Data Request WD 4-107(D). Broadband Services, Inc. must pay Qwest Corporation according to the FCC's Affiliate Transactions rules. Therefore, if Qwest's proposed rate is approved by the Arizona Commission it will apply to Broadband Services, Inc. Q

Respondent: Terri Million, Director/Cost Witness, Qwest

**THIS SCHEDULE HAS BEEN OMITTED
IT CONTAINS INFORMATION CLAIMED TO BE
PROPRIETARY BY QWEST**

Arizona
Docket No. T-00000A-00-0194
WD 02-060

INTERVENOR: Arizona Corporation Commission

REQUEST NO: 060

With reference to Exhibit PWHJR-1 of his Direct Testimony, Mr. Hooks presents Qwest's proposed Nonrecurring and Recurring Charges for Line Sharing. For the following, please assume that a hypothetical CLEC wishes to purchase the high-frequency portion (HUNE) of the loop using Line Sharing from Qwest to provide high-speed xDSL service to a residential customer that is currently a Qwest subscriber.

A. Please provide a complete list of the non-recurring charges that the CLEC would have to pay Qwest in order to obtain the HUNE under the Qwest proposal. If there are some charges that may or may not apply, depending upon the circumstances, please indicate which charges would always apply, and which charges may or may not apply, depending upon the circumstances.

B. Please provide Qwest's proposed rates separately for each of the non-recurring charges listed in response to part (a). Please specifically indicate which charges are on a per-line basis and which charges are fixed charges that do not vary with the number of lines.

C. Please provide a complete list of the recurring charges that the CLEC would have to pay Qwest in order to obtain the HUNE under the Qwest proposal. If there are some charges that may or may not apply, depending upon the circumstances, please indicate which charges would always apply, and which charges may or may not apply, depending upon the circumstances.

D. Please provide Qwest's proposed rates separately for each of the recurring charges listed in response to part (c). Please specifically indicate which charges are on a per-line basis and which charges are fixed charges that do not vary with the number of lines.

E. Would a CLEC have to pay additional recurring and non-recurring charges for collocation? If yes, please list the non-recurring and recurring charges that would apply for this type of collocation under the Qwest proposal. Understandably, the response to this request will depend upon a large number of different variables (e.g. size of collocation space, size of cage, power needs, etc. etc.). Therefore, for purposes of responding to this request, please provide a demonstrative example using the collocation arrangements and requirements of a CLEC that is currently subscribing to Qwest's HUNE in Arizona, and is currently collocated in the Qwest central office that serves that HUNE loop. Please show what this CLEC would pay if it continues to provide service in the same manner it does today under the Qwest proposed charges. Please indicate how many lines in service this CLEC currently serves out of this central office (including both unbundled loops and HUNE loops). In order to protect any confidentiality arrangements, feel free to refer to this CLEC as "CLEC X".

If for some reason Qwest is unable to provide the above information due to confidentiality reasons, please provide a demonstrative example for a

hypothetical CLEC that will be serving 1 HUNE loop and has collocation needs that would involve collocation charges that are somewhere (ideally midway) between the least costly collocation needs and the most costly collocation needs.

F. Please provide Qwest's proposed rates separately for each of charges listed in response to part (e). Please specifically indicate which charges are on a per-line basis and which charges are fixed charges that do not vary with the number of lines.

RESPONSE:

A. <u>Nonrecurring Charge Elements</u>	B. <u>Nonrecurring Charges</u>
Option 1A	
1. Engineering (splitter)/order	1. \$ 1, 315.991 Charge always applies.
2. Option 1A/shelf	2.
a. Splitter on Splitter Bay: cost per splitter shelf and cards (8 shelves per relay rack)	a. 564.8122 Charge applies based upon Option selected.
b. Splitter on Splitter Bay: data connections Direct to DLEC	b. 1, 321.572
c. Splitter on Splitter Bay: per each voice and voice/data connection (Qty 2)	c. 2, 677.982 (1, 338.99 ea.)
d. (2. a.+ b. + c.) Subtotal	d. 4, 564.362
e. (1+2. a., b. and.c.) TOTAL	e. \$ 5, 880.352
Option 1B	
1. Engineering (splitter)/order	1. \$ 1, 315.991
2. Option 1B/shelf	2.
a. Splitter on Splitter Bay: cost per splitter shelf and cards (8 shelves per relay rack)	a. 564.812
b. Splitter on Splitter Bay: data connections direct to 410 block	b. 1, 180.802

c. Splitter on Splitter Bay: per each voice and voice/data connection (Qty. 2)	c. 2,677.982
d. (2. a. + b. + c.) Subtotal	d. 4,423.58 2
e. (1+ 2.a.+b.+c.) TOTAL	e. 5,739.572
Option 2A	
1. Engineering (splitter)/order	1. 1,315.991
2. Splitter on IDF: data connections direct to DLEC	2. 2,288.622
Option 2A TOTAL	\$ 3,604.612
Option 2B	
1. Engineering (splitter)	1. 1,315.991
2. Splitter on IDF: data connections to 410 block	2. 1,280.902
Option 2B TOTAL	\$ 2,596.892
Option 3A	
1. Engineering (splitter)	1. 1,315.991
2. Splitter on MDF: data connections to DLEC	2. 2,686.922
Option 3A TOTAL	\$ 4,002.912
Option 3B	
1. Engineering (splitter)	1. 1,315.991
2. Splitter on MDF: data connections to 410 block	2. 1,310.822
Option 3B TOTAL	\$ 2,626.812
C. <u>Recurring Charge Elements</u>	D. <u>Recurring Charges</u>

Loop Charge/line	Zone 1/\$8.74 , Zone 2/ \$ 10.00, Zone 3/ \$ 10.00 1
Option 1A	
2. Option 1:	
Splitter on Splitter Bay: cost per splitter shelf and cards (8 shelves per relay rack)	5.812
3. Option 1A:	
Splitter on Splitter Bay: data connections Direct to DLEC	1.712
4. Option 1A & 1B:	
Splitter on splitter bay -per <u>each</u> voice & voice/data connection (Qty. 2)	3.48 (1.74/ea.) 2
Option 1A TOTAL	\$ 11.00
Option 1B	
Option 1:	
Splitter on Splitter Bay: cost per splitter shelf and cards (8 shelves per relay rack)	5.812
Option 1B:	
Splitter on Splitter Bay: data connections to 410 block	1.532
Option 1A & 1B:	
Splitter on splitter bay -per <u>each</u> voice & voice/data connection (Qty. 2)	3.48 (1.74/ea.) 2
Option 1B TOTAL	\$ 10.82
Option 2A	
Splitter on IDF: data connection direct to DLEC	2.972
Option 2B	5.812

Splitter on IDF: data connections to the	1.662
Option 3A	
Splitter on MDF: data connection direct to DLEC	3.482
Option 3B	
Splitter on MDF: data connections to the 410 block	1.702

E. The collocation charge is the same regardless whether the CLEC orders Line Sharing. Line Sharing does not impose any additional charges on the CLEC's collocation arrangement.

F. Not applicable.

Mary Pavlik
Manager - Interconnection
301 4th Ave.
P.O. Box 69
Verdigre, NE 68783

Arizona
Docket No. T-00000A-00-0194
WD 06-149

INTERVENOR: Arizona Corporation Commission

REQUEST NO: 149

With reference to the permanent Line Sharing Agreement that Qwest has filed before the Commission on or about 12/29/2000,

A. Section 2.7.1 of the Agreement discusses the "Augmentation Charge" when it states "The charge is set forth in Appendix A to the Underlying Agreement. Please provide a complete copy of the "Underlying Agreement", including "Appendix A".

B. Exhibit B of the referenced document shows the "Line Sharing Rates". Please provide a direct matching of each of these rates to the equivalent charges that are shown on the Direct Testimony Exhibit PWHJR-1 of Perry W. Hooks in this proceeding.

RESPONSE:

(A) The permanent line sharing agreement is to be used as an amendment to any effective approved interconnection agreement. Thus, the underlying agreement will vary by CLEC as it will be its interconnection agreement currently effective in Arizona.

(B)

PERMANENT LINE SHARING AGREEMENT	TESTIMONY OF PERRY W. HOOKS
RECURRING Line Sharing Charge \$4.89*	RECURRING Line Sharing Charge Zone 1) \$8.74 Zone 2) \$10.00 Zone 3) \$10.00
NONRECURRING Shared Loop Basic Installation \$20.00	inadvertently omitted in the Hooks Testimony
RECURRING Common Area Splitter Collocation Rent and Maintenance \$3.54	RECURRING Common Area Splitter Collocation Option 1A \$11.00 Option 1B \$10.82 Option 2A \$2.97 Option 2B \$1.66 Option 3A \$3.48 Option 3B \$1.70
NONRECURRING for Common Area Splitter Collocation Line Sharing Engineering \$1,000.00	NONRECURRING for Common Area Splitter Collocation Line Sharing Engineering \$1,315.99
Option 1 \$3,026.90	Option 1B \$4,423.58

Option 2	\$2,876.30	Option 1A	\$4,564.36
Option 3	\$856.49	Option 2B	\$1,280.90
		and	
		Option 3B	\$1,310.82
Option 4	\$1,739.32	Option 2A	\$2,288.62
		and	
		Option 3A	\$2,686.92
NONRECURRING Repair and Maintenance			
approved Tariff Trouble Isolation			
Charge (TIC) or			
if no approved TIC then Time and			
Materials			
<i>*Pursuant to Section 2.1.1.1 of this Amendment, the Line Sharing Charge will be reduced to \$3.89 once Qwest has fully recovered the costs it will incur to upgrade its OSS to support Line Sharing.</i>			

Respondent: Barbara Brohl, Director/Wholesale Advocacy, Qwest

Arizona
 Docket No. T-00000A-00-0194
 WD 02-077

INTERVENOR: Arizona Corporation Commission

REQUEST NO: 077

With reference to pages 17-19 of Mr. Kennedy's Direct Testimony, there is a discussion of the various types of labor charges associated with virtual collocation.

A. What is the source of the Engineering Labor charges used in the Qwest cost study for virtual collocation?

B. What hourly rate did Qwest assume for Engineering Labor in its cost study for virtual collocation?

C. What is the source of the Installation Labor charges used in the Qwest cost study for virtual collocation?

D. What hourly rate did Qwest assume for Installation Labor in its cost study for virtual collocation?

E. What is the source of the Maintenance Labor charges used in the Qwest cost study for virtual collocation?

F. What hourly rate did Qwest assume for Maintenance Labor in its cost study for virtual collocation?

G. What is the source of the Training Labor charges used in the Qwest cost study for virtual collocation?

H. What hourly rate did Qwest assume for Training Labor in its cost study for virtual collocation?

RESPONSE:

Hourly Rate Table

	1999	1999
	STRAIGHT TIME	TIME & 1/2 RATE
	PER HALF HR.	PER HALF HR.
P42-DSOC MTCE./TRAINING	\$20.27	\$27.12
P70-QUALITY INSPEC./INSTALL.	\$23.11	\$29.76
E20-DETAIL ENGINEERING	\$21.87	\$28.23

A. The source of the labor charges used in the Qwest cost study for virtual collocation is from the incurred charges and productive hours charged to accounts 6534:Plant Operations Administration Expense and 6535:Engineering Expense. For a detailed description of these accounts, see the Collocation Model, on the E. 4.2 LABOR RATES worksheet.

B. See Hourly Rate Table above and Collocation Model, on the E. 4.2 LABOR RATES worksheet.

C. See Response "a", above.

D. See Hourly Rate Table above and Collocation Model, on the E. 4.2 LABOR RATES worksheet.

E. See Response "a", above.

F. See Hourly Rate Table above and Collocation Model, on the E. 4.2 LABOR RATES worksheet.

G. See Response "a", above.

H. See Hourly Rate Table above and Collocation Model, on the E. 4.2 LABOR RATES worksheet.

Terri Million
Director - Cost Witness
1801 California St.
Denver, CO

**Arizona -- Qwest Deaveraged Loop Cost
(utilizing HM 5.2a results with FCC and ACC Inputs)**

For Sale	CLLI	Wire Center	Total Lines	Percent of Total	Total Loop Cost	NID	Distribution	Feeder	Concentration	Zone
38		Total (Before Sale of Exchanges)	3,173,116		\$ 13.22	\$ 0.51	\$ 7.78	\$ 1.77	\$ 3.16	
0		Zone 1 (38 Wire Centers)	2,160,203	68.1%	\$ 9.35	\$ 0.50	\$ 4.83	\$ 1.16	\$ 2.86	
6		Zone 2 (36 Wire Centers)	773,830	24.4%	\$ 14.57	\$ 0.52	\$ 9.24	\$ 1.74	\$ 3.07	
32		Zone 3 (62 Wire Centers)	239,083	7.5%	\$ 43.80	\$ 0.54	\$ 29.72	\$ 7.31	\$ 6.23	
		Total (After Sale of Exchanges)	2,993,026		\$ 11.89	\$ 0.51	\$ 6.85	\$ 1.53	\$ 2.99	
		Zone 1 (38 Wire Centers)	2,160,203	72.2%	\$ 9.35	\$ 0.50	\$ 4.83	\$ 1.16	\$ 2.86	
		Zone 2 (30 Wire Centers)	672,535	22.5%	\$ 14.20	\$ 0.52	\$ 8.95	\$ 1.75	\$ 2.98	
		Zone 3 (30 Wire Centers)	160,288	5.4%	\$ 36.34	\$ 0.55	\$ 25.28	\$ 5.65	\$ 4.86	

Source:

AT&T's Working Hatfield Model (Exhibit DKD-1) and AT&T's Deaveraging Optimizer (Exhibit DKD-12).

ACC Decision No. 60635, dated Jan 30, 1998.

FCC Inputs Order (FCC 99-304), Released Nov 2, 1999.

Depreciation rates from ACC Decision 61945, dated Sept 17, 1999 and Decision No. 62507, dated May 4, 2000.

Arizona -- Qwest Deaveraged Loop Cost
(utilizing HM 5.2a results with FCC and ACC Inputs)

For Sale	CLLI	Wire Center	Total Lines	Percent of Total	Total Loop Cost	NID	Distribution	Feeder	Concentration	Zone
0	PHNXAZNO	PHOENIX-NORTH	121,757	3.84%	\$ 7.07	\$ 0.43	\$ 3.51	\$ 1.24	\$ 1.89	1
0	PHNXAZMA	PHOENIX-MAIN	102,754	3.24%	\$ 7.60	\$ 0.36	\$ 3.86	\$ 1.08	\$ 2.30	1
0	PHNXAZSE	PHNX SOUTHEAST CAP	27,068	0.85%	\$ 8.59	\$ 0.42	\$ 4.70	\$ 1.65	\$ 1.81	1
0	TEMPAZMC	MCCLINTOCK	92,175	2.90%	\$ 8.59	\$ 0.50	\$ 3.99	\$ 0.98	\$ 3.11	1
0	PHNXAZNE	PHOENIX-NORTHEAST	76,966	2.43%	\$ 8.70	\$ 0.47	\$ 4.35	\$ 1.30	\$ 2.58	1
0	PHNXAZEA	PHOENIX-EAST	43,203	1.36%	\$ 8.76	\$ 0.43	\$ 4.57	\$ 1.26	\$ 2.50	1
0	TEMPAZMA	TEMPE MAIN	76,246	2.40%	\$ 8.81	\$ 0.44	\$ 4.20	\$ 1.19	\$ 2.98	1
0	SCDLAZMA	SCOTTSDALE MAIN	82,828	2.61%	\$ 8.87	\$ 0.50	\$ 4.60	\$ 1.35	\$ 2.42	1
0	PHNXAZMY	PHNX-MAYVALE CAP	41,152	1.30%	\$ 9.14	\$ 0.55	\$ 4.81	\$ 1.18	\$ 2.61	1
0	TCSNAZMA	TUCSON MAIN	94,741	2.99%	\$ 9.18	\$ 0.44	\$ 5.15	\$ 1.21	\$ 2.38	1
0	PHNXAZNW	PHOENIX-NORTHWEST	58,804	1.85%	\$ 9.23	\$ 0.52	\$ 4.72	\$ 1.44	\$ 2.54	1
0	SCDLAZTH	THUNDERBIRD	87,430	2.76%	\$ 9.26	\$ 0.48	\$ 4.58	\$ 0.89	\$ 3.31	1
0	SPRSAZWE	SUPERSTITION WEST	89,551	2.82%	\$ 9.33	\$ 0.55	\$ 4.66	\$ 0.93	\$ 3.19	1
0	CHNDAZWE	CHANDLER WEST	44,578	1.40%	\$ 9.35	\$ 0.49	\$ 4.05	\$ 1.12	\$ 3.69	1
0	PHNXAZSY	PHOENIX-SUNNYSLOPE	61,763	1.95%	\$ 9.42	\$ 0.48	\$ 4.76	\$ 1.26	\$ 2.91	1
0	PHNXAZMR	PHOENIX-MID RIVERS	57,770	1.82%	\$ 9.44	\$ 0.55	\$ 4.76	\$ 1.19	\$ 2.94	1
0	PHNXAZPR	PHNX PEORIA	46,168	1.45%	\$ 9.51	\$ 0.54	\$ 4.93	\$ 1.09	\$ 2.95	1
0	CHNDAZSO	CHANDLER SOUTH	17,742	0.56%	\$ 9.52	\$ 0.56	\$ 4.95	\$ 0.28	\$ 3.73	1
0	AGFIAZSR	SUNRISE	35,788	1.13%	\$ 9.61	\$ 0.57	\$ 4.80	\$ 0.56	\$ 3.69	1
0	SCDLAZSH	SHEA	46,505	1.47%	\$ 9.65	\$ 0.53	\$ 5.02	\$ 1.05	\$ 3.05	1
0	GLDLAZMA	GLENDALE MAIN	58,568	1.85%	\$ 9.71	\$ 0.54	\$ 4.98	\$ 1.29	\$ 2.91	1
0	SPRSAZMA	SUPERSTITION MAIN	42,511	1.34%	\$ 9.72	\$ 0.57	\$ 5.19	\$ 0.85	\$ 3.10	1
0	PHNXAZGR	PHOENIX-GREENWAY	97,942	3.09%	\$ 9.73	\$ 0.53	\$ 4.62	\$ 1.38	\$ 3.19	1
0	MESAAZGI	GILBERT	68,756	2.17%	\$ 9.80	\$ 0.52	\$ 5.54	\$ 0.84	\$ 2.90	1
0	PHNXAZPP	PHOENIX-PECOS	16,293	0.51%	\$ 9.89	\$ 0.56	\$ 4.13	\$ 1.21	\$ 4.00	1
0	TCSNAZEA	TUCSON EAST	67,013	2.11%	\$ 10.11	\$ 0.51	\$ 5.32	\$ 1.43	\$ 2.85	1
0	TCSNAZFW	FLOWING WELLS	37,204	1.17%	\$ 10.16	\$ 0.51	\$ 5.58	\$ 1.28	\$ 2.79	1
0	DRVYAZNO	DEER VALLEY NORTH	47,767	1.51%	\$ 10.17	\$ 0.52	\$ 5.60	\$ 1.27	\$ 2.79	1
0	BRDSAZMA	BEARDSLEY	38,947	1.23%	\$ 10.18	\$ 0.56	\$ 5.70	\$ 0.97	\$ 2.95	1
0	PHNXAZCA	PHOENIX-CACTUS	91,926	2.90%	\$ 10.22	\$ 0.53	\$ 4.88	\$ 1.46	\$ 3.34	1
0	PHNXAZWE	PHOENIX WEST CAP	46,151	1.45%	\$ 10.30	\$ 0.46	\$ 5.67	\$ 1.20	\$ 2.97	1
0	PRVYAZPP	PINNACLE PEAK	46,912	1.48%	\$ 10.34	\$ 0.55	\$ 5.95	\$ 0.63	\$ 3.20	1
0	PHNXAZBW	PHOENIX-BETHANY WE	17,258	0.54%	\$ 10.55	\$ 0.56	\$ 5.44	\$ 1.37	\$ 3.18	1
0	CHNDAZMA	CHANDLER MAIN	67,545	2.13%	\$ 10.60	\$ 0.54	\$ 5.52	\$ 1.08	\$ 3.47	1
0	TCSNAZCR	TCSN CRAYCROFT	42,964	1.35%	\$ 10.76	\$ 0.50	\$ 6.18	\$ 1.34	\$ 2.74	1
0	TCSNAZCA	CATALINA	30,001	0.95%	\$ 10.83	\$ 0.55	\$ 6.50	\$ 1.20	\$ 2.58	1

Arizona -- Qwest Deaveraged Loop Cost
(utilizing HM 5.2a results with FCC and ACC Inputs)

For Sale	CLLI	Wire Center	Total Lines	Percent of Total	Total Loop Cost	NID	Distribution	Feeder	Concentration	Zone
0	TCSNAZCO	CORTARO	20,452	0.64%	\$ 11.05	\$ 0.55	\$ 6.36	\$ 1.69	\$ 2.45	1
0	LTPKAZMA	LITCHFIELD PARK	17,004	0.54%	\$ 11.06	\$ 0.54	\$ 7.30	\$ 1.12	\$ 2.10	1
0	PHNXAZ81	PHOENIX-FOOTHILLS	9,207	0.29%	\$ 11.53	\$ 0.57	\$ 6.93	\$ 1.66	\$ 2.37	2
0	MESAAZMA	MESA	107,614	3.39%	\$ 11.87	\$ 0.50	\$ 6.78	\$ 1.27	\$ 3.32	2
0	SRVSAZMA	SIERRA VISTA MAIN	27,857	0.88%	\$ 12.06	\$ 0.48	\$ 7.47	\$ 1.34	\$ 2.77	2
0	TCSNAZNO	TUCSON NORTH-1A CA	51,839	1.63%	\$ 12.23	\$ 0.54	\$ 7.20	\$ 1.04	\$ 3.45	2
0	TCSNAZSO	TCSN SOUTH CAP	41,527	1.31%	\$ 12.39	\$ 0.51	\$ 7.31	\$ 1.40	\$ 3.17	2
0	TCSNAZRN	RINCON	74,308	2.34%	\$ 12.48	\$ 0.54	\$ 7.20	\$ 1.50	\$ 3.24	2
0	PHNXAZSO	PHOENIX-SOUTH	32,345	1.02%	\$ 13.07	\$ 0.51	\$ 8.01	\$ 1.29	\$ 3.27	2
0	GDYRAZCW	COLDWATER	11,101	0.35%	\$ 13.41	\$ 0.51	\$ 8.25	\$ 1.79	\$ 2.86	2
0	TLSNAZMA	TOLLESON	12,736	0.40%	\$ 13.64	\$ 0.52	\$ 9.14	\$ 1.27	\$ 2.71	2
1	YUMAAZMA	YUMA	35,352	1.11%	\$ 13.72	\$ 0.50	\$ 8.31	\$ 0.90	\$ 4.01	2
0	PRSCAZEA	PRESCOTT EAST	17,411	0.55%	\$ 13.91	\$ 0.54	\$ 9.64	\$ 1.39	\$ 2.34	2
0	FLGSAZMA	FLAGSTAFF MAIN	34,731	1.09%	\$ 14.07	\$ 0.46	\$ 8.40	\$ 2.89	\$ 2.32	2
0	FLGSAZSO	FLAGSTAFF SOUTH	2,685	0.08%	\$ 14.70	\$ 0.57	\$ 10.51	\$ 2.29	\$ 1.33	2
0	TCSNAZTV	TANQUEVERDE	13,498	0.43%	\$ 15.17	\$ 0.55	\$ 11.04	\$ 1.21	\$ 2.37	2
0	SPRSAAZEA	SUPERSTITION EAST	30,843	0.97%	\$ 15.25	\$ 0.56	\$ 10.46	\$ 1.18	\$ 3.05	2
0	PYSNAZMA	PAYSON	13,924	0.44%	\$ 15.50	\$ 0.52	\$ 9.53	\$ 3.02	\$ 2.43	2
0	SEDNAZSO	SEDONA SOUTH	5,083	0.16%	\$ 15.56	\$ 0.54	\$ 10.88	\$ 2.08	\$ 2.06	2
0	PRSCAZMA	PRESCOTT MAIN	42,646	1.34%	\$ 15.59	\$ 0.50	\$ 10.28	\$ 2.19	\$ 2.63	2
0	CVCKAZMA	CAVE CREEK	19,621	0.62%	\$ 15.76	\$ 0.54	\$ 11.08	\$ 1.24	\$ 2.90	2
0	MSPKAZMA	MUNDS PARK	2,641	0.08%	\$ 15.99	\$ 0.57	\$ 11.14	\$ 0.38	\$ 3.89	2
0	FTMDAZMA	FORT MCDOWELL	17,407	0.55%	\$ 16.12	\$ 0.54	\$ 10.02	\$ 3.52	\$ 2.03	2
0	TCSNAZSE	TUCSON SOUTHEAST	10,067	0.32%	\$ 16.73	\$ 0.54	\$ 11.58	\$ 1.58	\$ 3.03	2
0	SEDNAZMA	SEDONA	15,177	0.48%	\$ 16.91	\$ 0.49	\$ 11.00	\$ 2.45	\$ 2.97	2
0	SNMNAZMA	SAN MANUEL	2,027	0.06%	\$ 17.67	\$ 0.52	\$ 11.07	\$ 4.37	\$ 1.71	2
1	YUMAAZFT	YUMA FORTUNA	13,610	0.43%	\$ 17.77	\$ 0.57	\$ 12.10	\$ 0.71	\$ 4.39	2
1	YUMAAZSE	YUMA SOUTHEAST	25,666	0.81%	\$ 17.77	\$ 0.51	\$ 11.40	\$ 1.92	\$ 3.95	2
0	CRNDAZMA	CORONADO	11,544	0.36%	\$ 18.05	\$ 0.56	\$ 11.50	\$ 2.87	\$ 3.13	2
0	CSGRAZMA	CASA GRANDE	18,627	0.59%	\$ 18.10	\$ 0.50	\$ 12.43	\$ 2.24	\$ 2.93	2
0	CTWDAZSO	COTTONWOOD-SOUTH	2,804	0.09%	\$ 19.57	\$ 0.57	\$ 14.94	\$ 0.17	\$ 3.88	2
1	PAGEAZMA	PAGE	5,742	0.18%	\$ 19.64	\$ 0.48	\$ 13.84	\$ 1.19	\$ 4.13	2
1	SFFRAZMA	SAFFORD	12,270	0.39%	\$ 20.19	\$ 0.51	\$ 14.42	\$ 2.96	\$ 2.30	2
0	NGLSAZMW	NOGALES MIDWAY	12,204	0.38%	\$ 20.53	\$ 0.47	\$ 15.44	\$ 1.71	\$ 2.91	2
1	DGLSAZMA	DOUGLAS	8,655	0.27%	\$ 21.06	\$ 0.52	\$ 14.58	\$ 4.07	\$ 1.89	2
0	CTWDAZMA	COTTONWOOD-MAIN	13,394	0.42%	\$ 21.12	\$ 0.52	\$ 14.84	\$ 2.07	\$ 3.70	2

Arizona -- Qwest Deaveraged Loop Cost
(utilizing HM 5.2a results with FCC and ACC Inputs)

For Sale	CLLI	Wire Center	Total Lines	Percent of Total	Total Loop Cost	NID	Distribution	Feeder	Concentration	Zone
0	FLGSAZEA	FLAGSTAFF EAST	17,316	0.55%	\$ 21.19	\$ 0.52	\$ 13.06	\$ 4.62	\$ 2.99	2
0	NGLSAZ03	NOGALES RIO RICO	351	0.01%	\$ 21.66	\$ 0.52	\$ 18.86	\$ 2.12	\$ 0.16	2
0	TCSNAZWE	TUCSON WEST	6,142	0.19%	\$ 22.01	\$ 0.57	\$ 16.10	\$ 1.96	\$ 3.38	3
0	GNVYAZMA	GREEN VALLEY	19,727	0.62%	\$ 22.76	\$ 0.55	\$ 15.08	\$ 3.83	\$ 3.30	3
1	GLOBAZMA	GLOBE	8,890	0.28%	\$ 23.94	\$ 0.51	\$ 16.78	\$ 3.92	\$ 2.74	3
0	HGLYAZMA	HIGLEY	5,765	0.18%	\$ 24.63	\$ 0.52	\$ 19.44	\$ 1.76	\$ 2.90	3
1	SMTNAZMA	SOMERTON	7,780	0.25%	\$ 24.65	\$ 0.54	\$ 18.33	\$ 2.11	\$ 3.66	3
0	ELOYAZ01	ELOY	6,159	0.19%	\$ 25.03	\$ 0.54	\$ 15.15	\$ 4.51	\$ 4.82	3
0	TCSNAZSW	TUCSON SOUTHWEST	19,402	0.61%	\$ 25.07	\$ 0.57	\$ 17.11	\$ 3.00	\$ 4.40	3
1	SPRRAZMA	SUPERIOR	1,510	0.05%	\$ 25.37	\$ 0.53	\$ 16.06	\$ 4.28	\$ 4.50	3
0	NGLSAZMA	NOGALES	6,732	0.21%	\$ 25.51	\$ 0.47	\$ 18.26	\$ 3.24	\$ 3.55	3
0	WHTKAZMA	WHITE TANKS	2,383	0.08%	\$ 25.77	\$ 0.56	\$ 20.33	\$ 2.50	\$ 2.38	3
1	BISBAZMA	BISBEE	5,777	0.18%	\$ 26.35	\$ 0.50	\$ 17.15	\$ 5.14	\$ 3.56	3
1	WNSLAZMA	WINSLOW	5,223	0.16%	\$ 27.78	\$ 0.51	\$ 18.75	\$ 3.63	\$ 4.89	3
0	CLDGAZMA	COOLIDGE	5,650	0.18%	\$ 28.54	\$ 0.53	\$ 20.42	\$ 3.87	\$ 3.73	3
0	SRVSAZSO	SIERRA VISTA SO	8,259	0.26%	\$ 29.22	\$ 0.57	\$ 20.28	\$ 3.49	\$ 4.88	3
0	CMVRAZMA	CAMP VERDE	7,526	0.24%	\$ 29.37	\$ 0.54	\$ 22.59	\$ 3.50	\$ 2.75	3
0	PHNXAZLV	PHOENIX-LAVEEN	2,860	0.09%	\$ 30.11	\$ 0.54	\$ 24.13	\$ 1.06	\$ 4.37	3
0	FTMDAZNO	RIO VERDE	2,355	0.07%	\$ 32.65	\$ 0.57	\$ 20.24	\$ 6.97	\$ 4.88	3
0	HGLYAZQC	QUEEN CREEK	5,829	0.18%	\$ 33.10	\$ 0.55	\$ 23.15	\$ 3.81	\$ 5.59	3
0	BCKYAZMA	BUCKEYE	8,482	0.27%	\$ 33.80	\$ 0.53	\$ 24.03	\$ 4.61	\$ 4.62	3
0	NWRVAZMA	NEW RIVER	5,331	0.17%	\$ 34.56	\$ 0.54	\$ 27.24	\$ 2.15	\$ 4.64	3
1	TCSNAZML	MOUNT LEMMON	567	0.02%	\$ 34.66	\$ 0.49	\$ 19.51	\$ 2.12	\$ 12.54	3
1	MIAMAZMA	MIAMI	2,139	0.07%	\$ 35.22	\$ 0.51	\$ 23.42	\$ 6.02	\$ 5.27	3
0	SRVSAZNO	SIERRA VISTA NO	2,312	0.07%	\$ 38.35	\$ 0.56	\$ 29.60	\$ 4.62	\$ 3.58	3
1	WCBGAZMA	WICKENBURG	6,250	0.20%	\$ 38.75	\$ 0.52	\$ 26.47	\$ 7.86	\$ 3.91	3
0	MARNAZ02	MARANA WEST	8,379	0.26%	\$ 39.64	\$ 0.54	\$ 26.94	\$ 6.21	\$ 5.94	3
1	HYDNAZMA	HAYDEN	926	0.03%	\$ 41.71	\$ 0.51	\$ 27.13	\$ 4.14	\$ 9.94	3
0	PINEAZMA	PINE	3,051	0.10%	\$ 42.38	\$ 0.56	\$ 31.96	\$ 4.16	\$ 5.69	3
0	CHVYAZMA	CHINO VALLEY	7,555	0.24%	\$ 42.82	\$ 0.55	\$ 29.90	\$ 6.50	\$ 5.87	3
0	FLRNASZMA	FLORENCE	5,358	0.17%	\$ 43.19	\$ 0.52	\$ 26.40	\$ 10.49	\$ 5.77	3
1	BNSNAZMA	BENSON	5,391	0.17%	\$ 44.80	\$ 0.52	\$ 28.84	\$ 10.83	\$ 4.61	3
0	HMBLAZMA	HUMBOLDT	4,749	0.15%	\$ 46.37	\$ 0.56	\$ 33.17	\$ 7.55	\$ 5.09	3
0	ORCLAZMA	ORACLE	1,837	0.06%	\$ 49.84	\$ 0.55	\$ 34.82	\$ 9.12	\$ 5.35	3
1	WLMSAZMA	WILLIAMS	3,685	0.12%	\$ 55.32	\$ 0.52	\$ 38.78	\$ 10.98	\$ 5.04	3
1	PLMNAZMA	PALOMINAS	843	0.03%	\$ 61.53	\$ 0.56	\$ 41.65	\$ 10.87	\$ 8.46	3

Arizona -- Qwest Deaveraged Loop Cost
 (utilizing HM 5.2a results with FCC and ACC Inputs)

For Sale	CLLI	Wire Center	Total Lines	Percent of Total	Total Loop Cost	NID	Distribution	Feeder	Concentration	Zone
1	PTGNAZEL	PATAGONIA ELGIN	1,173	0.04%	\$ 62.64	\$ 0.54	\$ 40.22	\$ 12.58	\$ 9.31	3
1	BNSNAZSD	SAINT DAVID	1,083	0.03%	\$ 63.32	\$ 0.56	\$ 44.02	\$ 10.35	\$ 8.38	3
0	VAILAZSO	VAIL SOUTH	2,794	0.09%	\$ 63.65	\$ 0.56	\$ 40.82	\$ 14.38	\$ 7.89	3
0	BLCNAZMA	BLACK CANYON	1,794	0.06%	\$ 66.62	\$ 0.54	\$ 47.81	\$ 8.69	\$ 9.58	3
1	CRCYAZMA	CIRCLE CITY	1,650	0.05%	\$ 67.20	\$ 0.56	\$ 41.70	\$ 16.62	\$ 8.32	3
1	WLCXAZMA	WILLCOX	4,523	0.14%	\$ 68.35	\$ 0.50	\$ 45.89	\$ 16.50	\$ 5.46	3
1	KRNYAZMA	KEARNY	1,395	0.04%	\$ 69.77	\$ 0.53	\$ 45.10	\$ 15.73	\$ 8.40	3
1	WHTLAZMA	WHITLOW	737	0.02%	\$ 73.86	\$ 0.56	\$ 64.14	\$ 1.91	\$ 7.24	3
1	TMBSAZMA	TOMBSTONE	1,267	0.04%	\$ 74.10	\$ 0.53	\$ 56.57	\$ 8.24	\$ 8.75	3
1	STFDZMA	STANFIELD	1,233	0.04%	\$ 76.81	\$ 0.54	\$ 54.60	\$ 13.18	\$ 8.49	3
1	MRCPAZMA	MARICOPA	2,174	0.07%	\$ 84.34	\$ 0.53	\$ 63.61	\$ 11.62	\$ 8.57	3
1	DDVLAZNM	DUDLEYVILLE	484	0.02%	\$ 85.23	\$ 0.55	\$ 65.14	\$ 11.52	\$ 8.02	3
1	TNCKAZMA	TONTO CREEK	1,176	0.04%	\$ 88.45	\$ 0.56	\$ 59.13	\$ 20.20	\$ 8.56	3
1	PIMAAZMA	PIMA	1,478	0.05%	\$ 89.23	\$ 0.56	\$ 57.31	\$ 20.90	\$ 10.46	3
0	AZCYAZ03	ARIZONA CITY	1,405	0.04%	\$ 91.78	\$ 0.57	\$ 55.46	\$ 24.39	\$ 11.36	3
0	MAYRAZMA	MAYER	1,296	0.04%	\$ 93.74	\$ 0.59	\$ 69.58	\$ 14.71	\$ 8.86	3
1	JSCYAZMA	JOSEPH CITY	727	0.02%	\$ 94.27	\$ 0.49	\$ 68.99	\$ 10.80	\$ 13.99	3
0	VAILAZNO	VAIL NORTH	1,419	0.04%	\$ 97.71	\$ 0.56	\$ 68.37	\$ 20.40	\$ 8.39	3
1	WLTNAZMA	WELLTON	2,390	0.08%	\$ 100.25	\$ 0.55	\$ 65.19	\$ 25.61	\$ 8.91	3
0	TUBCAZMA	TUBAC	2,566	0.08%	\$ 101.01	\$ 0.55	\$ 71.61	\$ 18.92	\$ 9.93	3
1	GLBNAZMA	GILA BEND	1,187	0.04%	\$ 107.62	\$ 0.50	\$ 72.46	\$ 18.47	\$ 16.19	3
0	CMVRAZRR	RIMROCK	1,522	0.05%	\$ 125.44	\$ 0.57	\$ 70.77	\$ 41.15	\$ 12.95	3
1	ASFKAZMA	ASHFORK	630	0.02%	\$ 128.77	\$ 0.54	\$ 96.68	\$ 18.01	\$ 13.54	3
1	MMTHAZMA	MAMMOTH	891	0.03%	\$ 129.48	\$ 0.55	\$ 82.10	\$ 31.82	\$ 15.01	3
1	YRNLAZMA	YARNELL	1,739	0.05%	\$ 129.51	\$ 0.54	\$ 88.21	\$ 28.38	\$ 12.37	3
0	WNBGAZ01	WINTERSBURG	1,649	0.05%	\$ 134.11	\$ 0.54	\$ 95.24	\$ 25.50	\$ 12.83	3
1	GRCNAZMA	GRAND CANYON	2,987	0.09%	\$ 202.12	\$ 0.42	\$ 104.58	\$ 15.37	\$ 81.75	3
1	PTGNAZMA	PATAGONIA	890	0.03%	\$ 234.49	\$ 0.54	\$ 132.70	\$ 80.00	\$ 21.24	3

AZ_Mountain Bell-Arizon_WDA_DZ.xls

	Annual Cost	Units	Unit Cost
End office switching			
Line Port	\$ 118,073,296	2,959,791 switched lines	\$ 1.00 per line/month
Non-Line Port	\$ 35,421,989	62,141,633,323 actual minutes	\$ 0.00133 per actual minute (for rate per DEM, see "Cost detail" sheet)
	\$ 82,651,307		
Signaling network elements			
Links	\$ 5,112,138	507 links	\$ 38.65 per link per month
STP	\$ 235,093	41,094,682,805 TCAP+ISUP msgs	\$ 0.00006 per signaling message
SCP	\$ 2,552,339	2,118,313,400 TCAP queries	\$ 0.00110 per query
	\$ 2,324,706		
Transport network elements			
Dedicated			
Sw+Sp Transport	\$ 15,176,523	333,518 trunks	\$ 3.79 per DS-0 equivalent per month
Switched	\$ 5,469,306	120,193 trunks	\$ 0.00038 per minute
Special	\$ 9,707,218	213,325 trunks	\$ 8.91 per DS-0 equivalent per month
Transmission Terminal	\$ 35,679,126	333,518 trunks	\$ 0.00089 per minute
			\$ 0.00127 total per minute
Common			
Transport	\$ 2,359,096	3,703,400,627 minutes	\$ 0.00063 per minute per leg (orig or term)
Transmission Terminal	\$ 3,776,992	3,703,400,627 minutes	\$ 0.00101 per minute
			\$ 0.00164 total per minute
Direct			
Transport	\$ 8,439,091	16,120,464,725 minutes	\$ 0.00052 per minute
Transmission Terminal	\$ 17,112,012	16,120,464,725 minutes	\$ 0.00106 per minute
			\$ 0.00159 total per minute
Tandem switch	\$ 1,929,257	3,322,868,975 minutes	\$ 0.00058 per minute
Operator systems	\$ 6,696,844		
Public Telephones	\$ 4,962,642		
Total (w/ Public)	\$ 722,375,932		
Total cost of switched network elements (w/o Public)	\$ 18.33	per line/month	

William Dunkel, Consultant
8625 Farmington Cemetery Road
Pleasant Plains, Illinois 62677

Qualifications

The Consultant is a consulting engineer specializing in telecommunication regulatory proceedings. He has participated in over 140 state regulatory proceedings as listed on Appendix A attached hereto.

The Consultant has provided cost analysis, rate design, jurisdictional separations, depreciation, expert testimony and other related services to state agencies throughout the country in numerous telecommunication state proceedings. The Consultant has also provided depreciation testimony to state agencies throughout the country in several electric utility proceedings.

The Consultant made a presentation pertaining to Video Dial Tone at the NASUCA 1993 Mid-Year Meeting held in St. Louis.

In addition, the Consultant also made a presentation to the NARUC Subcommittee on Economics and Finance at the NARUC Summer Meetings held in July, 1992. That presentation was entitled "The Reason the Industry Wants to Eliminate Cost Based Regulation--Telecommunications is a Declining Cost Industry."

The Consultant provides services almost exclusively to public agencies, including the Public Utilities Commission, the Public Counsel, or the State Department of Administration in various states.

William Dunkel currently provides, or in the past has provided, services in telecommunications proceedings to the following clients:

The Public Utility Commission or the Staffs in the States of:

Arkansas	Mississippi
Arizona	Missouri
Delaware	New Mexico
Georgia	Utah
Guam	Virginia
Illinois	Washington
Maryland	U.S. Virgin Islands

The Office of the Public Advocate, or its equivalent, in the States of:

Colorado	Maryland
District of Columbia	Missouri
Georgia	New Jersey
Hawaii	New Mexico
Illinois	Ohio
Indiana	Pennsylvania
Iowa	Utah
Maine	Washington

The Department of Administration in the States of:

Illinois	South Dakota
Minnesota	Wisconsin

In April, 1974, the Consultant was employed by the Illinois Commerce Commission in the Electric Section as a Utility Engineer. In November of 1975, he transferred to the Telephone Section of the Illinois Commerce Commission and from that time until July, 1980, he participated in essentially all telephone rate cases and other telephone rate matters that were set for hearing in the State of Illinois. During that period, he testified as an expert witness in numerous rate design cases and tariff filings in the areas of rate design, cost studies and separations. During the period 1975-1980, he was the Separations and Settlements expert for the Staff of the Illinois Commerce Commission.

From July, 1977 until July, 1980, he was a Staff member of the FCC-State Joint Board on Separations, concerning the "Impact of Customer Provision of Terminal Equipment on Jurisdictional Separations" in FCC Docket No. 20981 on behalf of the Illinois Commerce Commission. The FCC-State Joint Board is the national board which specifies the rules for separations in the telephone industry.

The Consultant has taken the AT&T separations school which is normally provided to the AT&T personnel.

The Consultant has taken the General Telephone separations school which is normally provided for training of the General Telephone Company personnel in separations.

Since July, 1980 he has been regularly employed as an independent consultant in telephone rate proceedings across the nation.

He has testified before the Illinois House of Representatives Subcommittee on Communications, as well as participating in numerous other schools and conferences pertaining to the utility industry.

Prior to employment at the Illinois Commerce Commission, the Consultant was a design engineer for Sangamo Electric Company designing electric watt-hour meters used in the electric utility industry. The Consultant was granted patent No. 3822400 for a solid state meter pulse initiator.

The Consultant graduated from the University of Illinois in February, 1970 with a Bachelor's of Science Degree in Engineering Physics with emphasis on economics and other business-related subjects. The Consultant has taken several post-graduate courses since graduation.

RELEVANT WORK EXPERIENCE OF
WILLIAM DUNKEL

ARIZONA

- U.S. West Communications
 General rate case
 Depreciation case
 General rate case
- Cost of Service Study
Docket No. E-1051-93-183
Docket No. T-01051B-97-0689
Docket No. T-01051B-99-0105

ARKANSAS

- Southwestern Bell Telephone Company
- Docket No. 83-045-U

CALIFORNIA

(on behalf of the California Cable Television Association)

- General Telephone of California
- Pacific Bell
- Fiber Beyond the Feeder Pre-Approval Requirement
- I.87-11-033

COLORADO

- Mountain Bell Telephone Company
 - General Rate Case
 - Call Trace Case
 - Caller ID Case
 - General Rate Case
 - Local Calling Area Case
 - General Rate Case
 - General Rate Case
 - General Rate Case
 - General Rate Case
 - Measured Services Case
- Independent Telephone Companies
 - Cost Allocation Methods Case
- Docket No. 96A-218T et al.
- Docket No. 92S-040T
- Docket No. 91A-462T
- Docket No. 90S-544T
- Docket No. 1766
- Docket No. 1720
- Docket No. 1700
- Docket No. 1655
- Docket No. 1575
- Docket No. 1620
- Docket No. 89R-608T

DELAWARE

- Diamond State Telephone Company
 - General Rate Case PSC Docket No. 82-32
 - General Rate Case PSC Docket No. 84-33
 - Report on Small Centrex PSC Docket No. 85-32T
 - General Rate Case PSC Docket No. 86-20
 - Centrex Cost Proceeding PSC Docket No. 86-34

DISTRICT OF COLUMBIA

- C&P Telephone Company of D.C.
 - Depreciation issues Formal Case No. 926

FCC

- Review of jurisdictional separations FCC Docket No. 96-45

FLORIDA

- BellSouth, GTE, and Sprint
 - Fair and reasonable rates Undocketed Special Project

GEORGIA

- Southern Bell Telephone & Telegraph Co.
 - General Rate Proceeding Docket No. 3231-U
 - General Rate Proceeding Docket No. 3465-U
 - General Rate Proceeding Docket No. 3286-U
 - General Rate Proceeding Docket No. 3393-U

HAWAII

- GTE Hawaiian Telephone Company
 - Depreciation/separations issues Docket No. 94-0298
 - Resale case Docket No. 7702

ILLINOIS

- Geneseo Telephone Company
 - EAS case Docket No. 99-0412
- Central Telephone Company (Staunton merger) Docket No. 78-0595
- General Telephone & Electronics Co.
 - Usage sensitive service case Docket Nos. 98-0200/98-0537
 - General rate case (on behalf of CUB) Docket No. 93-0301
 - (Usage sensitive rates) Docket No. 79-0141
 - (Data Service) Docket No. 79-0310

ILLINOIS (CONT.)

	(Certificate)	Docket No. 79-0499
	(Certificate)	Docket No. 79-0500
-	General Telephone Co.	Docket No. 80-0389
-	Ameritech (Illinois Bell Telephone Company)	
	Alternative Regulation Review	Docket No. 98-0252
	Area code split case	Docket No. 94-0315
	General Rate Case	Docket No. 83-0005
	(Centrex filing)	Docket No. 84-0111
	General Rate Proceeding	Docket No. 81-0478
	(Call Lamp Indicator)	Docket No. 77-0755
	(Com Key 1434)	Docket No. 77-0756
	(Card dialers)	Docket No. 77-0757
	(Concentration Identifier)	Docket No. 78-0005
	(Voice of the People)	Docket No. 78-0028
	(General rate increase)	Docket No. 78-0034
	(Dimension)	Docket No. 78-0086
	(Customer controlled Centrex)	Docket No. 78-0243
	(TAS)	Docket No. 78-0031
	(Ill. Consolidated Lease)	Docket No. 78-0473
	(EAS Inquiry)	Docket No. 78-0531
	(Dispute with GTE)	Docket No. 78-0576
	(WUI vs. Continental Tel.)	Docket No. 79-0041
	(Carle Clinic)	Docket No. 79-0132
	(Private line rates)	Docket No. 79-0143
	(Toll data)	Docket No. 79-0234
	(Dataphone)	Docket No. 79-0237
	(Com Key 718)	Docket No. 79-0365
	(Complaint - switchboard)	Docket No. 79-0380
	(Porta printer)	Docket No. 79-0381
	(General rate case)	Docket No. 79-0438
	(Certificate)	Docket No. 79-0501
	(General rate case)	Docket No. 80-0010
	(Other minor proceedings)	Docket No. various
-	Home Telephone Company	Docket No. 80-0220
-	Northwestern Telephone Company	
	Local and EAS rates	Docket No. 79-0142
	EAS	Docket No. 79-0519

INDIANA

- Public Service of Indiana (PSI)
Depreciation issues Cause No. 39584
- Indianapolis Power and Light Company
Depreciation issues Cause No. 39938

IOWA

- U S West Communications, Inc.
Local Exchange Competition Docket No. RMU-95-5
Local Network Interconnection Docket No. RPU-95-10
General Rate Case Docket No. RPU-95-11

KANSAS

- Southwestern Bell Telephone Company
Commission Investigation of the KUSF Docket No. 98-SWBT-677-GIT
- Rural Telephone Company
Commission General Rate Investigation Docket No. 01-RRLT-083-AUD

MAINE

- New England Telephone Company
General rate proceeding Docket No. 92-130

MARYLAND

- Chesapeake and Potomac Telephone Company
General rate proceeding Docket No. 7851
Cost Allocation Manual Case Case No. 8333
Cost Allocation Issues Case Case No. 8462

MINNESOTA

- Access charge (all companies) Docket No. P-321/CI-83-203
- U. S. West Communications, Inc. (Northwestern Bell Telephone Co.)
Centrex/Centron proceeding Docket No. P-421/91-EM-1002
General rate proceeding Docket No. P-321/M-80-306
Centrex Dockets MPUC No. P-421/M-83-466
MPUC No. P-421/M-84-24
MPUC No. P-421/M-84-25
MPUC No. P-421/M-84-26

MINNESOTA (CONT.)

	General rate proceeding	MPUC No. P-421/GR-80-911
	General rate proceeding	MPUC No. P-421/GR-82-203
	General rate case	MPUC No. P-421/GR-83-600
	WATS investigation	MPUC No. P-421/CI-84-454
	Access charge case	MPUC No. P-421/CI-85-352
	Access charge case	MPUC No. P-421/M-86-53
	Toll Compensation case	MPUC No. P-999/CI-85-582
	Private Line proceeding	Docket No. P-421/M-86-508
-	AT&T	
	Intrastate Interexchange	Docket No. P-442/M-87-54

MISSISSIPPI

-	South Central Bell	
	General rate filing	Docket No. U-4415

MISSOURI

-	Southwestern Bell	
	General rate proceeding	TR-79-213
	General rate proceeding	TR-80-256
	General rate proceeding	TR-82-199
	General rate proceeding	TR-86-84
	General rate proceeding	TC-89-14, et al.
	Alternative Regulation	TC-93-224/TO-93-192
-	United Telephone Company	
	Depreciation proceeding	TR-93-181
-	All companies	
	Extended Area Service	TO-86-8
	EMS investigation	TO-87-131

NEW JERSEY

-	New Jersey Bell Telephone Company	
	General rate proceeding	Docket No. 802-135
	General rate proceeding	BPU No. 815-458
		OAL No. 3073-81
	Phase I - General rate case	BPU No. 8211-1030
		OAL No. PUC10506-82
	General rate case	BPU No. 848-856
		OAL No. PUC06250-84

NEW JERSEY (CONT.)

Division of regulated
from competitive services
Customer Request Interrupt

BPU No. TO87050398
OAL No. PUC 08557-87
Docket No. TT 90060604

NEW MEXICO

- U.S. West Communications, Inc.
 - E-911 proceeding
 - General rate proceeding
 - General rate/depreciation proceeding
 - Subsidy Case
- VALOR Communications
 - Subsidy Case

Docket No. 92-79-TC
Docket No. 92-227-TC
Case No. 3008
Case No. 3325

Case No. 3300

OHIO

- Ohio Bell Telephone Company
 - General rate proceeding
 - General rate increase
 - General rate increase
 - Access charges
- General Telephone of Ohio
 - General rate proceeding
- United Telephone Company
 - General rate proceeding

Docket No. 79-1184-TP-AIR
Docket No. 81-1433-TP-AIR
Docket No. 83-300-TP-AIR
Docket No. 83-464-TP-AIR

Docket No. 81-383-TP-AIR

Docket No. 81-627-TP-AIR

OKLAHOMA

- Public Service of Oklahoma
 - Depreciation case

Cause No. 96-0000214

PENNSYLVANIA

- GTE North, Inc.
 - Interconnection proceeding
- Bell Telephone Company of Pennsylvania
 - Alternative Regulation proceeding
 - Automatic Savings
 - Rate Rebalance
- Enterprise Telephone Company
 - General rate proceeding
- All companies
 - InterLATA Toll Service Invest.

Docket No. A-310125F002

Docket No. P-00930715
Docket No. R-953409
Docket No. R-00963550

Docket No. R-922317

Docket No. I-910010

PENNSYLVANIA (CONT.)

- GTE North and United Telephone Company
Local Calling Area Case Docket No. C-902815

SOUTH DAKOTA

- Northwestern Bell Telephone Company
General rate proceeding Docket No. F-3375

TENNESSEE

(on behalf of Time Warner Communications)

- BellSouth Telephone Company
Avoidable costs case Docket No. 96-00067

UTAH

- U.S. West Communications (Mountain Bell Telephone Company)
 - General rate case Docket No. 84-049-01
 - General rate case Docket No. 88-049-07
 - 800 Services case Docket No. 90-049-05
 - General rate case/
incentive regulation Docket No. 90-049-06/90-
049-03
 - General rate case Docket No. 92-049-07
 - General rate case Docket No. 95-049-05
 - General rate case Docket No. 97-049-08

VIRGIN ISLANDS, U.S.

- Virgin Islands Telephone Company
 - General rate case Docket No. 264
 - General rate case Docket No. 277
 - General rate case Docket No. 314
 - General rate case Docket No. 316

VIRGINIA

- General Telephone Company of the South
 - Jurisdictional allocations Case No. PUC870029
 - Separations Case No. PUC950019

WASHINGTON

- US West Communications, Inc.
 - Interconnection case
 - General rate case
- All Companies-

Docket No. UT-960369
Docket No. UT-950200
Analyzed the local calling
areas in the State

WISCONSIN

- Wisconsin Bell Telephone Company
 - Private line rate proceeding
 - General rate proceeding

Docket No. 6720-TR-21
Docket No. 6720-TR-34