

**BEFORE THE WASHINGTON UTILITIES
AND TRANSPORTATION COMMISSION**

In the Matter of the Investigation Into)
Qwest Corporation's Compliance)
with Section 271 of the)
Telecommunications Act of 1996)
)

Docket No. UT-003022

**DIRECT TESTIMONY OF
KAREN A. STEWART
ON BEHALF OF
QWEST CORPORATION**

DECEMBER 12, 2000

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1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

2 **Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND**
3 **BUSINESS ADDRESS.**

4 A. My name is Karen A. Stewart. I am a Director in the Qwest Corporation
5 (Qwest), formerly known as U S WEST Communications, Inc., Policy and
6 Law organization. My office is located at 421 SW Oak Street, Portland,
7 Oregon.

8 **Q. PLEASE REVIEW YOUR EDUCATION, WORK EXPERIENCE AND**
9 **PRESENT RESPONSIBILITIES.**

10 A. I received a Bachelor of Science degree in Business Administration from
11 Portland State University in 1980, and a Masters degree in Business
12 Administration from the University of Oregon in July, 1994. I have been
13 employed by Qwest since 1981 (previously known as Pacific Northwest
14 Bell and U S WEST). I have held a variety of positions in Qwest,
15 including sales, product management, regulatory affairs, issues
16 management, and E911 project management and technical design. I am
17 currently a member of the Qwest Policy and Law organization
18 responsible for representing Qwest in a number of 271 workshops related
19 to Qwest's provisioning of unbundled network elements (UNEs).

20 **Q. HAVE YOU PREVIOUSLY TESTIFIED?**

21 A. Yes. Under either my current name or the name of Karen A. Baird, I have
22 testified in the states of Colorado, Idaho, Iowa, New Mexico, Minnesota,
23 Nebraska, North Dakota, Oregon, South Dakota, Utah and Washington.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2 A. The purpose of my testimony is to provide supporting testimony for 271
3 checklist items: access to unbundled network elements (UNEs) (checklist
4 item 2); local transport unbundled from switching or other services
5 (checklist item 5); and local switching unbundled from transport, the local
6 loop and other services (checklist item 6). I also reviewed the language in
7 the Qwest Statement of Generally Available Terms and Conditions
8 (SGAT) that demonstrates Qwest has a concrete and specific legal
9 obligation consistent with all FCC requirements to provide UNEs under
10 checklist item 2, access to unbundled dedicated and shared transport,
11 under checklist item 5, and unbundled switching under checklist item 6.

12 I have attached, as Exhibit KAS-2, a redlined version of the March 22,
13 2000 Washington SGAT updated to reflect the most current offerings for
14 these checklist items. This version of the Washington SGAT has been
15 updated to incorporate changes to the SGAT agreed to in the Arizona and
16 Colorado workshops on these same topics, as well as language proposed
17 by Qwest to address concerns raised in those workshops. This exhibit
18 also contains a clean print copy with all the red-lined changes accepted.

19 To summarize this testimony, Exhibit KAS-22 contains a matrix identifying
20 where in my testimony I have responded to the Washington Utilities and
21 Transportation Commission (Commission) Supplemental Interpretive and
22 Policy Statement questions for checklist items 2, 5 and 6.

1 **II. EXECUTIVE SUMMARY**

2 **Q. CAN YOU SUMMARIZE YOUR TESTIMONY?**

3 A. Yes. In this testimony, I address three checklist items, all of which are
4 forms of access to unbundled network elements (UNEs). Checklist Item 2
5 states that Qwest must offer CLECs nondiscriminatory access to UNEs of
6 all types. Checklist Items 5 and 6 (transport, and switching) are both
7 independent UNEs.

8 Qwest meets the checklist requirements in Washington for items 2, 5 and
9 6 through its revised Washington SGAT and various interconnection
10 agreements. The SGAT and the interconnection agreements create
11 concrete and specific legal obligations for Qwest to provide Competitive
12 Local Exchange Carriers (CLECs) in Washington with UNEs upon request
13 in conformance with Sections 251 and 271 of the Telecommunications
14 Act of 1996 (Act). Qwest also has processes in place to make access to
15 each UNE available to CLECs upon request and has developed
16 performance indicators (PIDs) so CLECs and the Commission can assess
17 how well Qwest is making access to UNEs available.

18 As part of Checklist item 2, Qwest has agreed to provide CLECs access
19 to UNEs pursuant to the FCC-defined standards. The terms and
20 conditions, rate elements, ordering process and maintenance are
21 addressed in Section 9 of the Washington SGAT.

22 Qwest has recently made an announcement regarding its UNE
23 combination offerings. Qwest has agreed to combine unbundled network
24 elements on behalf of CLECs throughout its region, despite having no
25 clear legal obligation to do so. Qwest will provide access to UNEs that it
26 has combined on behalf of the CLEC, whether they be UNEs Qwest
27 ordinarily combines, UNEs Qwest does not ordinarily combine (to the

1 extent technically feasible), or combinations of Qwest UNEs with CLEC
2 UNEs.

3 In accordance with Checklist item 5, Qwest is currently providing access
4 to unbundled dedicated interoffice transport (UDIT) to CLECs in
5 Washington in a timely and nondiscriminatory manner. As of October 31,
6 2000, Qwest has provided 70 DS1 and 72 DS3 UDITs in Washington. In
7 addition, Qwest provides shared transport to allow CLECs to utilize the
8 same routing tables and interoffice transmission facilities that Qwest
9 utilizes for itself. Consistent with FCC identified limitations, shared
10 transport is only available in conjunction with unbundled switching.

11 Checklist item 6 requires Qwest to provide access to unbundled circuit
12 switching that includes line-side and trunk-side cards, the features,
13 functions and basic switching capabilities of the switch as well as vertical
14 features such as customized routing functions. Qwest meets those
15 requirements.

16 The Washington SGAT commits Qwest to provide CLECs with analog and
17 digital line ports with attributes such as telephone number, directory
18 listing, dial tone and access to 911, operator services and directory
19 assistance. CLECs have access to all vertical features loaded in a Qwest
20 switch whether Qwest offers them to its own end users or not. A special
21 request process has been established to allow CLECs to request features
22 not loaded in a switch.

23 Qwest offers the FCC required combination of loop and transport (i.e.
24 EELs) that permits Qwest to withdraw unbundled switching as a UNE in
25 two switching-exempt wire centers in Washington. This limitation is
26 outlined in the Washington SGAT where the 2 density zone one wire
27 centers are identified.

1 To date, no CLEC has ordered stand-alone unbundled switching in
2 Washington even though it is available. CLECs can and do provide their
3 own central office switching and do not appear to require a direct
4 connection of their loops to a Qwest central office switch.

5 My testimony, when combined with Regional Oversight Committee's
6 ("ROC") Third Party Operation Support System (OSS) testing results,
7 checklist workshops and references to the SGAT, proves that Qwest
8 provides access to UNEs in conformance with the Act. The Washington
9 Utilities and Transportation Commission should confirm that Qwest
10 satisfies checklist items 2, 5 and 6.

11 **III. CHECKLIST ITEM 2 - ACCESS TO UNES**

12 **Q. PLEASE PROVIDE AN OVERVIEW OF YOUR TESTIMONY FOR**
13 **CHECKLIST ITEM 2.**

14 A. In this section of my testimony, I describe how Qwest provides CLECs
15 access to UNEs and combinations of UNEs. I also describe how CLECs
16 may combine all unbundled network elements, and how CLECs may
17 request additional unbundled network elements and combinations of
18 UNEs. Exhibit KAS-3 is a matrix identifying sections in interconnection
19 agreements filed in Washington between Qwest and various CLECs
20 showing that these interconnection agreements provide a concrete and
21 specific legal obligation associated with checklist items 2, 5 and 6.

22 **Q. DO YOU ADDRESS OSS ISSUES IN YOUR TESTIMONY?**

23 A. No. While the FCC has defined access to Operational Support Systems
24 (OSS) as an unbundled network element, and it is therefore an aspect of
25 checklist item 2, I will not be addressing access to OSS in this testimony.

1 **Q. HOW ARE OSS ISSUES BEING ADDRESSED?**

2 A. In cooperation with thirteen state commissions and other parties in this
3 proceeding, Qwest is supporting the ROC third party test of its OSS
4 systems administered by KPMG. At the conclusion of the third party test,
5 KPMG will submit its report to the Commission for its consideration. The
6 third party test report, in combination with my testimony, and the checklist
7 workshops, will demonstrate that Qwest meets its obligations for checklist
8 item 2 - access to unbundled network elements.

9 **Q. IS QWEST'S CAPACITY AND ABILITY TO PROVISION UNES BEING**
10 **EVALUATED AS PART OF THE OSS TESTING?**

11

12 A. Yes, the ROC OSS test is evaluating Qwest's processes and procedures
13 for provisioning UNEs, and that test will evaluate whether Qwest's
14 systems and processes can accommodate reasonable foreseeable
15 demand.

16 **Q. HOW IS QWEST OBLIGATED TO PROVIDE ACCESS TO UNES?**

17 A. The Act outlines two sets of requirements as to how an incumbent Local
18 Exchange Carrier (ILEC) such as Qwest must unbundle elements in its
19 network. First, Section 251 of the Act delineates several requirements
20 regarding how ILECs must provide access to Unbundled Network
21 Elements (UNEs). Second, Section 271 outlines *separate and distinct*
22 requirements regarding the network elements to which a Regional Bell
23 Operating Company (RBOC) must provide access before it can obtain
24 authority to provide in-region interLATA services.

1 **Q. PLEASE EXPLAIN THE SECTION 251 REQUIREMENTS.**

2 A. Section 251(c)(3) of the Act requires incumbent LECs to provide
3 “nondiscriminatory access to network elements on an unbundled basis” in
4 accordance with “the requirements of this section and Section 252.”¹
5 Section 251(d)(1) of the Act requires the FCC to establish regulations to
6 determine which network elements must be provided on an unbundled
7 basis. Section 251(d)(2) of the Act requires the FCC, when determining
8 what network elements should be made available, to consider, at a
9 minimum, whether “access to such network elements as are proprietary in
10 nature is *necessary*,” and whether “the failure to provide access to such
11 network elements would *impair* the ability of the telecommunications
12 carrier seeking access to provide the services that it seeks to offer” (bold
13 and italics added).²

14 In its UNE Remand Order in CC Docket No. 96-98³, the FCC applied the
15 “necessary and impair” analysis and released its revised list of UNEs
16 under Section 251(c)(3). The new list, set forth in Rule 51.319, includes
17 loops, sub-loops, NIDs, local circuit switching, dedicated and shared
18 transport, dark fiber, signaling, call-related databases, and Operations
19 Support Systems (OSS).

20 In some ways, the FCC’s list of UNEs is more limited than the UNE list
21 that was vacated by the Supreme Court. After applying this “necessary
22 and impair” analysis, the FCC determined that operator services, directory
23 assistance and unbundled switching (in limited circumstances) are not

1 Telecommunications Act of 1996, Section 251(c)(3).

2 Telecommunications Act of 1996, Section 251(d)(2).

3 Third Interconnection Order and Fourth Notice of Proposed Rulemaking, CC Docket No. 96-98, FCC 99-238, (November 5, 1999) (Third Interconnection Order or UNE Remand Order).

1 Section 251(c)(3) UNEs. Specifically, unbundled switching is no longer a
2 Section 251(c)(3) UNE in the top fifty metropolitan statistical areas (MSA),
3 in areas that are “Density Zone One,” for businesses with four lines or
4 more, when the ILEC offers Enhanced Extended Loop (“EEL”).⁴ Two wire
5 centers in the Seattle MSA meet this definition (the two Switching-Exempt
6 Wire Centers). The SGAT identifies the two Switching-Exempt Wire
7 Centers:

8
9 9.11.2.5.1 For the purposes of the above paragraph, the following
10 Wire Centers constitute density zone 1 in each of the
11 specified MSAs:
12

13	• MSA	CLLI	Wire Center Name
14	Seattle	STTLWA06	Seattle Main
15		STTLWAEL	Seattle Elliott

16 As detailed later in this testimony, Qwest has a concrete obligation to offer
17 EELs in the two Switching-Exempt Wire Centers, and as a result does not
18 offer unbundled switching as a 252(d)(1) priced UNE in those wire
19 centers.

20 **Q. CAN YOU ALSO EXPLAIN THE SECTION 271 REQUIREMENTS?**

21 A. Yes. To obtain interLATA relief, Qwest must also satisfy Section 271’s
22 checklist requirements and therefore, must continue to offer unbundled
23 switching to all competitors in all areas (including the Seattle MSA)
24 because access to local circuit switching is item 6 on the checklist. To
25 meet its checklist requirements, Qwest will offer stand-alone unbundled
26 circuit switching to CLECs (at market based rates) in the two Switching-

⁴ Third Interconnection Order and Fourth Further Notice, Appendix C, 51.319(c)(B).

1 Exempt Wire Centers for use by businesses with four lines or more.⁵
2 However, Qwest will not provide combinations of unbundled elements that
3 include local circuit switching in the two Switching-Exempt Wire Centers
4 for business with four or more lines. The reason for the latter is that Qwest
5 must provide access to combinations of UNEs; in density zone one of the
6 Seattle MSA, unbundled switching is not a UNE and, therefore,
7 combinations including switching are no longer combinations of UNEs.

8 **Q. WHAT PROVISIONS HAVE BEEN MADE TO ACCOUNT FOR**
9 **CHANGES IN LAW?**

10 A. Section 9.1 and 9.23 of the SGAT originally contained language regarding
11 how to incorporate changes in law, including additions or deletions from
12 the FCC list of UNEs. In other workshops, CLECs have objected to the
13 provision on the grounds that it is redundant in light of the change of law
14 section of the SGAT, Section 2.2. Qwest has deleted the change of law
15 provisions from Section 9, and replaced them with the following:

16 Changes in law, regulations or other “Existing Rules” relating to
17 unbundled network elements (“UNEs”), including additions and
18 deletions of elements Qwest is required to unbundle and/or provide
19 in a UNE Combination, shall be incorporated into this Agreement by
20 amendment pursuant to Section 2 of this agreement.

21 In the Arizona workshops, several CLECs suggested that Section 9
22 include other specific language regarding changes in law. Qwest has not
23 included those proposed changes in the SGAT. Qwest has applied the
24 same standard for CLEC-proposed changes as it did for its own. The
25 reference to Section 2.2 covers all potential changes in law.

⁵ SGAT at 9.11.3.1

1 **Q IS THERE A 271 CHECKLIST ITEM THAT IDENTIFIES QWEST'S**
2 **OVERALL 251 OBLIGATIONS FOR PROVIDING ACCESS TO UNES?**

3 A. Yes. Checklist item 2 requires that Qwest provide “[n]ondiscriminatory
4 access to network elements in accordance with the requirements of
5 sections 251(c)(3) and 252(d)(1).”⁶ Section 251(c)(3) requires that Qwest
6 provide access to unbundled network elements, “at any technically
7 feasible point,” and in a manner that “allows requesting carriers to
8 combine such elements.”⁷ Section 252(d)(1) establishes pricing
9 standards for UNEs, which shall be nondiscriminatory and “based on cost”
10 plus a “reasonable profit.”⁸

11 Thus, checklist item 2 requires Qwest to have a binding legal obligation as
12 well as a process for making both individual UNEs and combinations of
13 UNEs available to CLECs at 252(d)(1) pricing.

14 **Q. HOW IS QWEST MEETING ITS CHECKLIST ITEM 2 REQUIREMENTS**
15 **IN WASHINGTON?**

16 A. Qwest meets its checklist item 2 requirements in Washington through its
17 revised Washington SGAT and various interconnection agreements. The
18 SGAT and the interconnection agreements create concrete and specific
19 legal obligations for Qwest to provide Competitive Local Exchange
20 Carriers (CLECs) in Washington with UNEs upon request in conformance
21 with Sections 251 and 271 of the Act.

⁶ Telecommunications Act of 1996, Section 271(c)(2)(B)(ii).

⁷ Telecommunications Act of 1996, Section 251(c)(3).

⁸ Telecommunications Act of 1996, Section 252(d)(1).

1 Qwest defines the terms and conditions, rate elements, ordering process
2 and maintenance information for each of the revised list of FCC UNEs⁹ in
3 Section 9 of its Washington SGAT. There are not any FCC or
4 Commission required UNEs that Qwest does not offer in Washington.
5 The SGAT states:

6 9.1.2 Qwest shall provide non-discriminatory access to
7 unbundled network elements on rates, terms and conditions that are
8 non-discriminatory, just and reasonable. The quality of an
9 unbundled network element Qwest provides, as well as the access
10 provided to that element, will be equal between all CLECs
11 requesting access to that element; and, where technically feasible,
12 the access and unbundled network element provided by Qwest will
13 be provided in “substantially the same time and manner” to that
14 which Qwest provides to itself. In those situations where Qwest
15 does not provide access to network elements to itself, Qwest will
16 provide access in a manner that provides CLEC with a meaningful
17 opportunity to compete.

18 Qwest also has processes in place to make each UNE available to CLECs
19 upon request in its entire Washington state service territory (subject to
20 facility availability) and has developed performance indicators (PIDs) so
21 CLECs and the Commission can assess how well Qwest is making UNEs
22 available.

23 Contained in Exhibit A of the SGAT are the rates and charges for each
24 UNE and/or checklist item . Exhibit A also identifies how the fair,
25 reasonable and equitable pricing for each UNE and/or checklist item was
26 determined.

⁹ Loops, sub-loops, NIDs, local circuit switching, dedicated and shared transport, dark fiber, signaling, call-related databases, and Operations Support Systems (OSS).

1 **Q. HAS QWEST ADDRESSED CLECS' CONCERN OVER SGAT**
2 **LANGUAGE REGARDING ACCESS TO UNES?**

3 A. Yes. In Arizona, AT&T expressed concerns that it did not know what the
4 term "access" to a UNE entailed, despite the fact that the term "access to"
5 UNEs is the term used in the Telecommunications Act of 1996. To
6 address AT&T's concerns, Qwest has added the following language to
7 Section 9.1.2 of the SGAT, which incorporates the FCC's explanation of
8 "access to" a UNE from Paragraph 268 of its First Interconnection Order:

9 For the period of time Qwest provides access to CLEC to an
10 unbundled network element, CLEC shall have exclusive use of the
11 network element, except when the provisions herein indicate that a
12 network element will be shared (such as shared transport).

13 **Q. DOES QWEST MEET ITS ADDITIONAL CHECKLIST ITEM 2**
14 **OBLIGATIONS TO PROVIDE ACCESS TO UNE COMBINATIONS?**

15 A. Yes. Qwest's SGAT provides CLECs with access to combinations of
16 UNEs. The following language of the revised SGAT was proposed by
17 WCom and incorporated by Qwest at section 9.23.1.2:

18 Qwest will offer to CLEC UNE Combinations, on rates, terms and
19 conditions that are just, reasonable and non-discriminatory in
20 accordance with the terms and conditions of this Agreement and the
21 requirements of Section 251 and Section 252 of the Act, the
22 applicable FCC rules, and other applicable laws. The methods of
23 access to UNE Combinations described in this section are not
24 exclusive. Qwest will make available any other form of access
25 requested by CLEC that is consistent with the Act and the
26 regulations thereunder. CLEC shall be entitled to access to all
27 combinations functionality as provided in FCC rules and other
28 applicable laws.

29 Qwest has recently made an announcement regarding its UNE
30 combination offerings. Qwest has agreed to combine unbundled network
31 elements on behalf of CLECs throughout its region, despite the fact that

1 the Eighth Circuit has vacated all sections of Rule 315 that required ILECs
2 to combine UNEs. Qwest will provide access to UNEs that it has
3 combined on behalf of the CLEC, whether they be UNEs Qwest ordinarily
4 combines, UNEs Qwest does not ordinarily combine (to the extent
5 technically feasible), or combinations of Qwest UNEs with CLEC UNEs.
6 Qwest offers CLECs access to new and preexisting combinations of
7 UNEs. To reflect these changes, Qwest has added the following sections
8 to the SGAT:

9 9.23.1.4 When ordered in combination, Qwest will combine for
10 CLEC UNEs that are ordinarily combined in Qwest's
11 network provided that facilities are available.
12

13 9.23.1.5 When ordered in combination, Qwest will combine for
14 CLEC UNEs that are not ordinarily combined in
15 Qwest's network, provided that facilities are available
16 and such combination:

17 9.23.1.5.1 Is technically feasible;

18 9.23.1.5.2 Would not impair the ability of other carriers to
19 obtain access to UNEs or to interconnect with
20 Qwest's network; and

21 9.23.1.5.3 Would not impair Qwest's use of its network.
22

23 9.23.1.6 When ordered in combination, Qwest will combine
24 CLEC UNEs with Qwest UNEs, provided that
25 facilities are available and such combination:

26 9.23.1.6.1 Is technically feasible;

27 9.23.1.6.2 Shall be performed in a manner that provides Qwest
28 access to necessary facilities;

29 9.23.1.6.3 Would not impair the ability of other carriers to
30 obtain access to UNEs or to interconnect with
31 Qwest's network; and

32 9.23.1.6.4 Would not impair Qwest's use of its network.
33

34 Qwest also offers an alternative to Qwest-performed combinations in its
35 SGAT – the Interconnection Distribution Frame (ICDF) – which allows
36 CLECs to combine UNEs on an intermediate distribution frame without
37 being required to collocate their own electronic equipment in the central

1 office. Through these and other arrangements, Qwest delivers UNEs to
2 CLECs in a manner that allows them to combine elements, or to access
3 combinations of two or more network elements to provide the finished
4 services of their choice.

5 **Q. IS QWEST TAKING STEPS TO ENSURE CLECS HAVE ACCESS TO**
6 **PROMPT CONVERSIONS OF RETAIL/WHOLESALE SERVICES INTO**
7 **COMBINATIONS OF UNES?**

8 **A.** Yes. Qwest allows CLECs to convert retail/wholesale services to UNE
9 combinations in a manner substantially the same as resale. Since, as
10 outlined in the affidavit of Ms. Lori Simpson, Qwest can provision and
11 maintain resold services, it can, by definition, provision pre-existing UNE
12 combinations. Moreover, Qwest has agreed to test delivery of UNE new
13 and pre-existing combinations as part of its the ROC Third Party OSS
14 Test. This test will further verify Qwest's ability to provision combinations
15 upon request.

16 **Q. HOW DOES QWEST PROPOSE TO RECOVER NONRECURRING**
17 **COSTS FOR PROVIDING UNE COMBINATIONS?**

18 **A.** Qwest has agreed to charge cost-based nonrecurring charges to recover
19 its costs in combining elements. Qwest proposed in Arizona that it add
20 language to the SGAT indicating that the nonrecurring charges would be
21 cost-based. However, the CLECs participating in the Arizona workshops
22 suggested that the language be changed to indicate that nonrecurring
23 charges would be compliant with Existing Rules. Qwest has made the
24 suggested change to Section 9.23.4.1.2:

25 9.23.4.1.2 Nonrecurring charges will apply based upon the
26 Existing Rules to recover the cost to Qwest of provisioning the UNE
27 Combination and providing access to the UNE Combination. These

1 non-recurring charges are described in CLEC's Agreement and
2 Exhibit A.

3 **Q. DOES QWEST PROVIDE STANDARD UNE COMBINATIONS?**

4 A. Yes. The standard combinations that Qwest provides include UNE-
5 Platform (UNE-P) and combinations of dedicated transport and unbundled
6 loop (EEL). Standard UNE Combinations are generally available in
7 several categories: 1FR/1FB Plain Old Telephone Service (POTS); ISDN
8 – either Basic Rate or Primary Rate; Digital Switched Service (DSS); PBX
9 Trunks, Centrex and EEL.¹⁰

10 **Q. PLEASE DESCRIBE STANDARD UNE-PLATFORM COMBINATIONS.**

11 A. The SGAT defines UNE-P as follows:

12 4.61 “Unbundled Network Element Platform (UNE-P)” – is a
13 combination of unbundled network elements, including
14 Unbundled Loop, Unbundled Local Switching and Shared
15 Transport and unbundled network elements necessary to
16 support the loop-switch-port combination requested.
17 There are several forms of UNE-P, including but not limited
18 to, single line residence, single line business, PBX Trunks,
19 and Centrex.

20 The SGAT contains specific provisions defining each standard
21 combination. The proposed SGAT includes:

22 **UNE-P-POTS:** Retail and/or Resale 1FR/1FB lines are available to
23 CLEC as a UNE Combination. UNE-P POTS is comprised of the
24 following unbundled network elements: Analog - 2 wire voice grade
25 loop, Analog Line Side Port, Shared Transport and, if desired, all
26 compatible Vertical Features.¹¹

¹⁰ Subject to the CLEC providing a significant amount of local exchange service.

¹¹ SGAT at 9.23.3.2

1 **UNE-P-ISDN:** Retail and/or Resale ISDN lines are available to
2 CLEC as a UNE Combination. There are two types of UNE-P-
3 ISDN:

4 **Basic rate** (UNE-P-ISDN-BRI) - UNE-P-ISDN-BRI is comprised
5 of the following unbundled network elements: Basic ISDN
6 Capable Loop, BRI Line Side Switch Port and Shared
7 Transport.

8 **Primary rate** (UNE-P-ISDN-PRI) - UNE-P-ISDN-PRI is
9 comprised of the following unbundled network elements: Basic
10 ISDN Capable Loop, Digital Line Side Port and Shared
11 Transport.¹²

12 **UNE-P-DSS:** Retail and/or Resale Digital Switched Service (DSS)
13 are available to CLEC as a UNE Combination. UNE-P-DSS is
14 comprised of the following unbundled network elements: DS1
15 Capable Loop, Digital Line-Side Port and Shared Transport.¹³

16 **UNE-P-PBX:** Retail and/or Resale PBX Trunks are available to
17 CLEC as a UNE Combination. There are two types of UNE-P-PBX:
18 Analog Trunks and Direct Inward Dialing (DID) Trunks. UNE-P-PBX
19 is comprised of the following unbundled network elements: 2/4 Wire
20 Analog Loop, Analog/DID Trunks, and Shared Transport.

21 **UNE-P-Centrex:** Centrex is comprised of the following unbundled
22 network elements: Analog - 2 wire voice grade loop, Analog Line
23 Side Port, Shared Transport, Centrex Common Block and, if
24 desired, the Centrex Features supported by the switch.

25 **Q. WHAT ARE SOME OF THE FEATURES AVAILABLE FOR UNE-P-DSS**
26 **AND UNE-P-PBX?**

27 A. The following are examples of available features for these combinations:

28 **UNE-P-DSS**
29 Features include:
30 • Loop Diversity and Avoidance
31 • Hunting
32 • Direct Inward Dialing

12 SGAT at 9.23.3.5

13 SGAT at 9.23.3.4

- Answer Supervision
- Call Transfer Line Side

UNE-P-PBX

Optional features include:

- Expanded Answer for 1A/1E ESS central offices on in only DID
- DID Trunk Queuing with the optional features of Delay Announcement or Music on Queue on in only and 2-way DID
- DID Two-Way Call Transfer on 2-way only

Q. WHERE CAN THE CLECS OBTAIN A COMPLETE LIST OF AVAILABLE FEATURES FOR STANDARD UNE-P COMBINATIONS?

A. At the request of CLECs, Qwest has added additional enhancements to its web site for the UNE-P standard products. By accessing the IRRG at http://www.uswest.com/wholesale/productsServices/irrg/une_p_c.html CLECs can obtain a complete list of the features now available with each standard UNE-P combination. In addition, CLECs can research USOCs and FIDs they may find on a Qwest end-user customer Customer Service Record (CSR) to get the English translations, and related information about the USOC, to assist in the conversion of these services to UNE-P products. There is also a complete list of feature USOCs that are not available with UNE-P to allow CLECs to determine if a customer's service can be converted to UNE-P with the identical feature set. Attached as Exhibit KAS-4, is a list of the features not available with UNE-P.

To access the USOC definitions, the CLEC can go to the IRRG <http://www.uswest.com/wholesale/guides/index.html>, then pull down the Resource & Tools menu and select USOC/FID Finder. To do a USOC search, the CLEC should click on USOC Search. The next screen allows the CLEC to enter the desired USOC. A list of all USOCs that contain the USOC characters entered by the CLEC is then returned. To obtain the USOC definition just click on the exact USOC desired. The final screen provides the USOC definition.

1 The process can be shortened by going directly to the USOC Search
2 screen <http://usocfidfind.uswest.com/prodquery/usocSearch.html>.

3 **Q ARE THERE FEATURES OR OTHER SERVICES THAT ARE NOT**
4 **AVAILABLE WITH UNE-P?**

5 A. Yes. Qwest Advanced Intelligent Network (AIN) services, voice
6 messaging service and Qwest DSL are not available with UNE-P. The
7 complete list of features and related USOCs not available with UNE-P can
8 be found on the Qwest web site:
9 http://www.uswest.com/wholesale/productsServices/irrg/une_p_c.html

10 **Q. DID THE FCC SPECIFICALLY ADDRESS AIN FEATURES IN THE UNE**
11 **REMAND ORDER?**

12 A. Yes. The FCC stated in the UNE Remand order:

13 We agree with Ameritech that unbundling AIN service software such
14 as "Privacy Manager" is not "necessary" within the meaning of the
15 standard in section 251(d)(2)(A). In particular, a requesting carrier
16 does not need to use an incumbent LEC's AIN service software to
17 design, test, and implement a similar service of its own. (820)
18 Because we are unbundling the incumbent LECs' AIN databases,
19 SEC, SMS, and STPs, requesting carriers that provision their own
20 switches or purchase unbundled switching from the incumbent will
21 be able to use these databases to create their own AIN software
22 solutions to provide services similar to Ameritech's "Privacy
23 Manager." They therefore would not be precluded from providing
24 service without access to it. **Thus, we agree with Ameritech and**
25 **BellSouth that AIN service software should not be**
26 **unbundled.**(821)¹⁴ (Emphasis added)

27 Clearly, when ILECs make the AIN platform available for CLECs to
28 develop their own AIN features, ILECs are not required to unbundle AIN

¹⁴ UNE Remand Order ¶419. Footnotes 820 and 821 were omitted.

1 features for UNE-P applications. Please see Checklist item 6-Unbundled
2 Switching for more detail on Qwest AIN features.

3 **Q. HAS QWEST PROVISIONED ANY UNE-P COMBINATIONS IN**
4 **WASHINGTON?**

5 A. Yes. As of October 30, 2000, Qwest has provisioned 196 UNE-P
6 combinations in Washington. Attached as Exhibit KAS-20C is a
7 confidential document identifying to whom Qwest is presently providing
8 these commercial volumes.

9 **Q. PLEASE DESCRIBE AN EEL.**

10 A. The Enhanced Extended Loop (“EEL”) is a combination of loop and
11 dedicated transport used by CLECs to serve customers in one wire center
12 via collocation in another wire center. The FCC defined EELs as:

13 As noted in section VI(B) above, the EEL allows requesting carriers
14 to serve a customer by extending a customer’s loop from the end
15 office serving that customer to a different end office in which the
16 competitor is already collocated. The EEL therefore allows
17 requesting carriers to aggregate loops at fewer collocation locations
18 and increase their efficiencies by transporting aggregated loops
19 over efficient-high capacity facilities to their central switching
20 location.¹⁵

21 **Q. PLEASE EXPLAIN THE QWEST EEL OFFERING.**

22 A. Initially, Qwest developed two products, one to handle conversion of
23 combinations of loop and dedicated transport to EEL (then called UNE-C-
24 PL) and one to handle Qwest’s obligation to combine loop and dedicated
25 transport in Zone 1 of the top 50 MSAs (then called EEL). Since Qwest
26 has agreed to combine loop and dedicated transport in its entire 14-state
27 region, and not just within Zone 1 of the top 50 MSAs, Qwest has

¹⁵ UNE Remand Order ¶288.

1 combined UNE-C-PL and EEL into one EEL product. CLECs requested
2 this change in the Arizona workshops. The SGAT defines EEL as follows:

3 **Enhanced Extended Loop (EEL)** -- Enhanced Extended Loop
4 (EEL) -- EEL is a combination of loop and dedicated interoffice
5 transport and may also include multiplexing or concentration
6 capabilities. EEL transport and loop facilities may utilize
7 DS0 through OC-192 or other existing bandwidths. DS0, DS1 and
8 DS3 bandwidths are defined products. Other existing bandwidths
9 can be ordered through the Special Request Process set forth in
10 Exhibit F. Qwest has two EEL options: "EEL-Conversion" (EEL-C)
11 and "EEL-Provision" (EEL-P).¹⁶

12 **Q. DOES QWEST OFFER POINT TO POINT AND MULTIPLEXED EELS?**

13 A. Yes. Qwest offers both a Point-to-Point EEL and a Multiplexed EEL. The
14 Point to-Point EEL consists of an unbundled loop directly connected to
15 unbundled dedicated interoffice transport. The Multiplexed EELs offer
16 increased flexibility for a CLEC serving multiple customers in a single
17 Qwest wire center. It consists of central office based multiplexing
18 equipment connected to dedicated interoffice transport. With the
19 Multiplexed EEL, a CLEC would then order individual loops out to the end
20 user premises that would be connected to Central Office based-
21 multiplexing equipment. See Exhibit KAS-5 for a diagram illustrating
22 "Point-to-Point EEL" and "Multiplexed EEL."

23 **Q. WHAT BANDWIDTH OPTIONS ARE AVAILABLE WITH EELS?**

24 A. EELs are available in a variety of bandwidths including bandwidth
25 between DS0 and OC192, in addition to other bandwidths that exist in the
26 network. DS0, DS1 and DS3 bandwidths are standard products. Other
27 bandwidths can be ordered through the special request process explained

¹⁶ SGAT at 9.23.3.7

1 in the next section. Specifications, interfaces and parameters for EELs
2 are described in Qwest's Technical Publication 77403.

3 **Q. ARE THERE ANY RESTRICTIONS IMPOSED ON CLECS FOR THE**
4 **USE OF UNE COMBINATIONS?**

5 A. Yes. On June 2, 2000, the FCC released a supplement to its UNE
6 Remand Order concerning the ability of carriers to utilize combinations of
7 dedicated transport and loop in lieu of special access circuits. The FCC
8 found that such circuits are not available for conversion into combinations
9 of UNEs unless they are carrying a "significant amount of local exchange
10 service." The FCC defined "significant amount of local exchange service"
11 as follows:

12 We find that a requesting carrier is providing a "significant amount of
13 local exchange service" to a particular customer if it meets one of
14 three circumstances:

15 (1) As we found in the *Supplemental Order*, the requesting carrier
16 certifies that it is the exclusive provider of an end user's local
17 exchange service.¹⁷ . . .

18 (2) The requesting carrier certifies that it provides local exchange
19 and exchange access service to the end user customer's premises
20 and handles at least one third of the end user customer's local
21 traffic measured as a percent of total end user customer local dial
22 tone lines; and for DS1 circuits and above,¹⁸ at least 50 percent of
23 the activated channels on the loop portion of the loop-transport
24 combination have at least 5 percent local voice traffic individually,¹⁹

17 *Supplemental Order* at n.9.

18 A DS1 circuit contains 24 voice-grade channels.

19 Traffic is local if it is defined as such in a requesting carrier's state-approved local exchange tariff and/or it is subject to a reciprocal compensation arrangement between the requesting carrier and the incumbent LEC. This is consistent with the Commission's statement in the *Local Competition First Report and Order* that state commissions have the authority to determine what geographic areas should be considered "local areas" for purposes of applying reciprocal compensation arrangements, consistent with their historical practice

1 and the entire loop facility has at least 10 percent local voice traffic.
2 When a loop-transport combination includes multiplexing (e.g., DS1
3 multiplexed to DS3 level),²⁰ each of the individual DS1 circuits must
4 meet this criteria. . . .

5 (3) The requesting carrier certifies that at least 50 percent of the
6 activated channels on a circuit are used to provide originating and
7 terminating local dial tone service and at least 50 percent of the
8 traffic on each of these local dial tone channels is local voice traffic,
9 and that the entire loop facility has at least 33 percent local voice
10 traffic. When a loop-transport combination includes multiplexing
11 (e.g., DS1 multiplexed to DS3 level), each of the individual DS1
12 circuits must meet this criteria. . . .²¹

13 **Q. IS THE FCC DECISION ON EELS REFLECTED IN THE QWEST SGAT?**

14 A. Yes. The EEL language in the revised SGAT tracks the FCC's decision
15 verbatim.²² The SGAT follows the procedure developed by the FCC that
16 allows CLECs to self certify which of the three conditions an individual
17 combination of loop and transport meets for conversions to UNEs:

18 When CLEC certifies to Qwest through a certification letter, or other
19 mutually agreed upon solution, that the combination of elements is
20 carrying a "Significant Amount of Local Exchange" Traffic, then
21 Qwest will provision the EEL or convert the Special Access circuit to
22 an EEL-C.²³

23 **Q WHEN WILL QWEST PROVISION AN EEL?**

24 A. Once Qwest receives a certification, it will provision the EEL, unless
25 Qwest has knowledge that the circuit does not qualify for conversion to

of defining local service areas for local exchange carriers. *Local Competition First Report and Order*, 11 FCC Rcd at 16013, para. 1035.

²⁰ A DS3 circuit contains 24 DS1s. A DS1 circuit that is multiplexed to the DS3 level passes through electronic equipment that allows the signals carried on the DS1 to be consolidated on to the DS3.

²¹ Supplemental Order Clarification FCC 00-183 at para. 22.

²² SGAT at 9.23.3.7.2.5

²³ SGAT at 9.23.3.7.2.4

1 EEL. Qwest will not provision an EEL or convert a circuit to EEL-C if
2 Qwest records indicate that the Private Line/Special Access is, or the EEL
3 will be, connected directly to a tariffed service or if, in options 1 and 2
4 above, the EEL would not terminate at CLEC's Collocation arrangement in
5 at least one Qwest central office. Consistent with FCC guidelines, Qwest
6 reserves the right to audit CLEC self certifications. To address CLEC
7 concerns in Arizona, Qwest has clarified that it will not make an audit a
8 precondition to provisioning EEL and that it may not use any other audit
9 rights it may have pursuant to an interconnection agreement between
10 CLEC and Qwest to audit for compliance with the local use requirements.
11 Qwest has also clarified that, although CLEC has an obligation to
12 maintain appropriate records to support its certification, it has no
13 obligation to keep any records that it does not keep in the ordinary course
14 of its business.

15 **Q. HAVE CLECS APPEALED THE FCC DECISION ON THE LOCAL USE**
16 **RESTRICTION FOR EELS?**

17 A. Yes. In Arizona, CLECs indicated that they had applied to the FCC for
18 waivers of the local use requirement, and asked that the possibility of
19 such waivers be added to the SGAT. To address these concerns, Qwest
20 has added the following language to Section 9.23.3.6.1 of the SGAT:

21 9.23.3.7.1 Unless CLEC is specifically granted a waiver from the
22 FCC which provides otherwise, and the terms and
23 conditions of the FCC waiver apply to CLEC's request
24 for a particular EEL, . . .

25 **Q. HOW WILL QWEST PROVISION EEL SERVICE IN WASHINGTON?**

26 A. Qwest will provision EEL service in Washington utilizing a defined order
27 and provisioning flow. Exhibit KAS-6 is the EEL order and provisioning
28 flow diagram. For EEL-P, CLECs will submit orders using the ASR

1 process similar to how special access circuits (that terminate in
2 collocation) are ordered today. Only one ASR is required when CLEC
3 orders Point-to-Point EEL. Two ASRs are required for Multiplexed EEL.
4 For EEL-C, CLECs will submit orders using a single LSR. Only one LSR
5 is required to convert an eligible special access private line to EEL. Exhibit
6 KAS-6 contains a flowchart that delineates the tasks performed by Qwest
7 personnel in order to provide EEL service. This exhibit also includes a
8 matrix that describes each of work tasks identified in the flow chart.
9 Qwest will follow these steps each time EEL service is ordered in
10 Washington. Installation intervals are set forth in Exhibit C of the SGAT.

11 **Q. HAS QWEST PROVISIONED ANY EELS IN WASHINGTON?**

12 A. No. As of October 30, 2000, Qwest has not provisioned any EELs in
13 Washington. However, Qwest has demonstrated that it has a concrete
14 and specific legal obligation to furnish EELs and is ready to furnish EELs
15 in quantities that competitors may reasonably demand and at an
16 acceptable level of quality.

17 **Q. CAN A CLEC REQUEST COMBINATIONS OTHER THAN WHAT IS**
18 **IDENTIFIED IN QWEST'S SGAT AS STANDARD PRODUCT**
19 **OFFERINGS?**

20 A. Yes. The SGAT sets forth processes for a CLEC to access UNE
21 Combinations different from the SGAT-identified standard combinations.
22 Qwest has developed a streamlined and standardized process for CLECs
23 to request access to additional combinations in the Qwest network as a
24 combination of UNEs. The process begins by the CLEC filling out a brief
25 Special Request Applications Form. Exhibit KAS-7 contains a copy of the
26 Special Request Applications Form and a process flow. The form
27 identifies the specific time frames Qwest will use in responding to the

1 CLEC's request. A basic underlying principle of this request process is
2 that the CLEC and Qwest have reason to believe that the combination or
3 features requested is technically feasible and only contains FCC-identified
4 UNEs. The SGAT states:

5 CLEC may request access to and, where appropriate, development
6 of, additional UNE Combinations pursuant to the Bona Fide
7 Request Process in CLEC's Agreement. In its BFR request, CLEC
8 must identify the specific combination of UNEs, identifying each
9 individual UNE by name as described in this Agreement.²⁴

10 For those UNEs that Qwest does not ordinarily combine in its network, the
11 CLEC must use the BFR process, to allow Qwest to determine if the
12 requested combination is technically feasible. In addition, as demand
13 materializes, Qwest will continue to expand its list of standard UNE
14 combinations.

15 **Q. DOES QWEST ALLOW CLECS TO PERFORM COMBINATIONS OF**
16 **ELEMENTS?**

17 A. Yes. Section 251(c)(3) of the Act expressly requires ILECs to provide
18 UNEs "in a manner that allows requesting carriers to combine [them] . . .
19 in order to provide such telecommunications services." Qwest satisfies
20 this requirement through its proposed SGAT, which states:

21 9.1.5 CLEC may connect UNEs in any technically feasible
22 manner. Qwest will provide CLEC with the same
23 features, functions and capabilities of a particular
24 element that Qwest provides to itself. Qwest will not
25 restrict the types of telecommunications services CLEC
26 may offer through unbundled elements, nor will it restrict
27 CLEC from combining elements with any technically
28 compatible equipment CLEC owns. Qwest will provide
29 CLEC with all of the functionalities of a particular
30 element, so that CLEC can provide any

²⁴ SGAT at 9.23.3.10

1 telecommunications services that can be offered by
2 means of the element. Qwest shall provide such
3 unbundled network elements in a manner that allows
4 CLEC to combine such elements in order to provide
5 Telecommunications Service.

6 **Q. WHAT OPTIONS ARE AVAILABLE FOR CLECS TO COMBINE UNES?**

7 A. There are several options available to CLECs to combine two or more
8 UNEs. For example, a CLEC could obtain caged-physical, cageless-
9 physical, or virtual collocation and order various unbundled network
10 elements from Qwest. For each element ordered, Qwest provides
11 connections to the demarcation point through the use of Qwest cross-
12 connect facilities called Interconnection Tie Pairs (ITP). The CLEC can
13 combine the various elements into a telecommunication service by
14 connecting the appropriate elements in their collocation space.²⁵ This
15 should eliminate any security concerns that CLECs may have about
16 combining elements on an intermediate frame.

17 A second option that enables a CLEC to combine unbundled network
18 elements is the Interconnection Distribution Frame (ICDF). The FCC, in
19 its rules, requires Qwest to provide the following types of connections:

20 Incumbent LECs must provide cross-connect facilities, for example,
21 between an unbundled loop and a requesting carrier's collocated
22 equipment, in order to provide access to that loop. . . . [A]n
23 incumbent LEC must take the steps necessary to allow a competitor
24 to combine its own facilities with the incumbent LEC's unbundled
25 network elements.²⁶

26

²⁵ SGAT at 9.1.4

²⁶ First Interconnection Order at ¶386.

1 **Q. WHAT LANGUAGE IS IN THE SGAT REGARDING A CLEC'S ACCESS**
2 **TO UNES FOR TESTING?**

3 A. Qwest has agreed that CLECs will have access to UNEs at the
4 collocation-established network demarcation point to perform all
5 technically feasible testing to determine end-to-end transmission and
6 circuit functionality. Upon a reasonable request by the CLEC, Qwest will
7 confirm functionality or other operating parameters testing of the UNE
8 consistent with the rates and charges for such testing as identified in
9 Exhibit A of the SGAT under 9.20 Miscellaneous Elements. At AT&T's
10 request, Qwest has modified the SGAT to require that Qwest will test
11 individual elements at the reasonable request of the CLEC when Qwest's
12 maintenance and repair activities require it. Such testing will be
13 consistent with testing appropriate to the individual UNE being tested and
14 subject to 12.3.4 Trouble Isolation section of the SGAT. The SGAT
15 states:

16

17 9.1.6 Except as set forth in the UNE Combinations Section,
18 Qwest provides UNEs on an individual element basis. In such
19 circumstances, CLEC is responsible for the end-to-end transmission
20 and circuit functionality. CLEC is responsible to test end-to-end on
21 unbundled loops, ancillary and finished service combinations.
22 CLEC will have access to UNEs at the collocation-established
23 network demarcation point to perform all technically feasible testing
24 to determine end-to-end transmission and circuit functionality. Upon
25 a reasonable request by CLEC, Qwest will confirm functionality or
26 other operating parameters testing of the UNE consistent with the
27 rates and charges for such testing as identified in Exhibit A. Qwest
28 will test individual elements at the reasonable request of the CLEC
29 when Qwest's maintenance and repair activities require it. Such
30 testing will be consistent with testing appropriate to the individual
31 UNE being tested and subject to the Operational Support Systems
32 Section of this Agreement.

1 In Section 9.1.9, Qwest reserves the right to make changes to its network.
2 In Arizona, AT&T expressed concerns that such changes could cause
3 material changes in the quality and nature of CLEC UNEs. To address
4 AT&T's concerns, Qwest has added the following language:

5 9.1.9 In order to maintain and modernize the network properly,
6 Qwest may make necessary modifications and changes to the
7 UNEs in its network on an as needed basis. Such changes may
8 result in minor changes to transmission parameters. Qwest shall
9 provide advance notice of changes that affect network
10 interoperability pursuant to applicable FCC rules. In order to
11 maintain and modernize the network properly, Qwest may make
12 necessary modifications and changes to the UNEs in its network on
13 an as needed basis. Such changes may result in minor changes to
14 transmission parameters. Network maintenance and modernization
15 activities will result in UNE transmission parameters that are within
16 transmission limits of the UNE ordered by CLEC. Qwest shall
17 provide advance notice of changes that affect network
18 interoperability pursuant to applicable FCC rules. Changes that
19 affect network interoperability include changes to local dialing from
20 seven (7) to ten (10) digit, area code splits, and new area code
21 implementation. FCC rules are contained in CFR Part 51 and 52.
22 Qwest provides such disclosures on an internet web site.

23

24 **Q. ARE UNES AVAILABLE WITHOUT COLLOCATION?**

25 A. Yes. Numerous combinations of UNEs are available without traditional
26 collocation. For example, when a CLEC orders UNE-P, collocation is not
27 required. However, the standard method of accessing individual UNEs is
28 with collocation. For CLECs who do not wish to collocate any electronic
29 equipment in a Qwest central office, ICDF collocation is available. Under
30 this option, Qwest delivers the CLEC's various unbundled network
31 elements to a single intermediate distribution frame located in the central
32 office. When the CLEC chooses to utilize this option, the ICDF becomes
33 the CLEC's demarcation point. CLEC employees have access to the

1 ICDF 24 hours per day, seven days per week, unescorted, to combine two
2 or more elements.²⁷

3 **Q. DOES QWEST REQUIRE USE OF AN INTERMEDIATE FRAME FOR**
4 **CLECS TO ORDER UNES?**

5 A. No. The use of an intermediate frame is not required to order UNEs or
6 combine UNEs. It is merely an option available to CLECs that wish to use
7 it. In many cases, Qwest uses the same intermediate frames to provision
8 services using the same wiring scheme for its own retail end users.

9 **Q. DOES QWEST HAVE A PROVISIONING PROCESS FOR UNE**
10 **COMBINATIONS?**

11 A. Yes. To simplify the CLEC's ordering process for UNE Combinations,
12 Qwest adopted a process similar to resale. Other than new EEL and
13 combinations that are not standard products, UNE Combinations are
14 ordered via an LSR. Rather than process conversions from retail and/or
15 wholesale as two orders (with a disconnect of the finished service and a
16 new connect of a UNE Combination arrangement), Qwest has developed
17 a UNE Combination service order process that will use a single LSR.
18 Qwest believes a single LSR approach will provide a simple and effective
19 order processing for the CLEC.

20 **Q. ARE STANDARD SERVICE INTERVALS AVAILABLE FOR UNE-P**
21 **PRODUCTS?**

22 A. Yes. Standard service intervals for each UNE Combination are in the
23 Interconnect & Resale Resource Guide (IRRG) and in Exhibit C of the
24 revised SGAT Exhibit KAS-8. In earlier versions of the SGAT, Qwest only
25 referred to the standard intervals contained in the IRRG. CLECs objected

²⁷ SGAT at 8.1.1.15

1 and suggested that the intervals be set forth in the SGAT. Qwest has
2 complied with that request and will include standard installation intervals
3 in Exhibit C.

4 **Q. HOW IS DISCONNECT BILLING HANDLED FOR UNE**
5 **COMBINATIONS?**

6 A. When Qwest's end user or the end user's new service provider orders the
7 discontinuance of the end user's existing service in anticipation of moving
8 to another service provider, Qwest will render its closing bill to the end
9 user effective with the disconnection. If Qwest is not the local service
10 provider, Qwest will issue a bill to the CLEC for that portion of the service
11 provided to the CLEC should CLEC's end user, a new service provider, or
12 the CLEC requested service be discontinued to the end user.

13

14 **Q. DOES THE INTERCONNECT MEDIATED ACCESS SYSTEM ALLOW**
15 **CLECS TO CONVERT EXISTING RETAIL/WHOLESALES POTS**
16 **SERVICES TO UNE COMBINATIONS?**

17 A. Yes. In the May 2000 Interconnect Mediated Access (IMA) release,
18 Qwest added the capability for CLECs to order the conversion of pre-
19 existing retail/wholesale POTS combinations to UNEs combinations using
20 a single LSR form. In its December 6.0 release, Qwest will continue to
21 add functionality for UNE combination arrangements by adding UNE-P
22 ISDN and Centrex to UNE-P POTS conversions, as well as additional
23 orders types like UNE-P new. In addition, this release will provide an
24 electronic interface for DS1 and DS3 private line conversions to EEL.
25 Moreover, the ROC OSS Test will verify Qwest's ability to provide CLECs
26 with combinations of UNEs.

1 **Q. WHAT OTHER ISSUES REGARDING UNE-COMBINATIONS HAVE**
2 **BEEN RAISED BY CLECS?**

3 A. There were two issues brought up in other workshops. First, AT&T
4 expressed concern that Qwest should not disconnect UNEs that are
5 currently combined unless the CLEC specifically requests that they be
6 separated. Qwest has included the following language in the SGAT that
7 assures CLECs that Qwest will not disconnect UNEs that are currently
8 combined, unless the CLEC specifically requests that they be separated:

9 9.23.1.3 When ordered in combination, UNEs that are currently
10 combined and ordered together will not be physically
11 disconnected or separated in any fashion except for
12 technical reasons or if requested by the CLEC. Network
13 elements to be provisioned together shall be identified and
14 ordered by CLEC as such.

15

16 Second, in Arizona, Eschelon suggested that language be added
17 providing that pre-existing UNE combinations be provisioned without
18 disruption. In response, Qwest has added to Section 9.23.1.3. the
19 following language from Section 2.2.30.3 of Attachment 8 of Eschelon's
20 Colorado contract:

21 When CLEC orders in combination UNEs that are currently
22 interconnected and functional, such UNEs shall remain interconnected
23 and functional without any disconnection or disruption of functionality.

24 **Q. CAN A CLEC REQUEST ACCESS TO UNES OTHER THAN THOSE**
25 **LISTED IN QWEST'S SGAT?**

26 A. Yes. When a CLEC desires a unique unbundled network element that is
27 not included in its interconnection agreement or the SGAT, the CLEC can

1 submit a bona fide request (BFR) to Qwest.²⁸ For example, the SGAT
2 outlines the typical process for requesting new network elements:

3 Any request for Interconnection or access to an unbundled network
4 element or ancillary service that is not already available as
5 described herein shall be treated as a Bona Fide Request (BFR).
6 Qwest shall use the BFR Process to determine the terms and
7 timetable for providing the requested Interconnection, access to
8 UNEs or ancillary services, if available, and the technical feasibility
9 of new/different points of Interconnection. Qwest will administer the
10 BFR Process in a non-discriminatory manner.²⁹

11 In any BFR, the CLEC specifies the additional element it wants
12 unbundled, including location and quantity desired. According to the
13 SGAT, Qwest must provide the CLEC with its preliminary analysis within
14 30 days of BFR receipt. Should Qwest determine that the request is not
15 technically feasible or fails to meet the standards for unbundling, Qwest
16 must notify the CLEC in writing as soon as a determination has been
17 made, but no later than 10 business days after the initial 30 business day
18 review period. If it is technically feasible to unbundle the element and it
19 meets the standards set forth in the Act, Qwest provides the CLEC with a
20 price quote for the requested element no later than 90 days after the
21 request is submitted by the CLEC.³⁰

22 In addition, the BFR process can also be used to request combinations of
23 elements Qwest does not currently combine in its network.

24 **Q. HAS QWEST PROCESSED ANY BFRS IN WASHINGTON?**

25 A. Yes. The following bona fide requests have been processed by Qwest in
26 Washington:

28 SGAT at Section 17.

29 SGAT at 17.0.

30 See SGAT, Section 17, Bona Fide Request Process.

1

Washington BFRs	1999	2000(ytd) TOTAL
a.) requests received:	6	6
b.) completed by response date:	4	6
c.) requests fulfilled as requested:	4*	2
d.) denied as requested but offered an existing (or new) alternative	1	2
e.) denied (not qualified under Act)	1	0
f.) requests withdrawn by customer	1**	2***

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YTD 2000 is through Oct. 31st
*One request met via an amendment to the interconnect agreement
**Previously withdrawn from the process because request was met via amendment
***Removed from the process – met via new contract language

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Moreover, if a CLEC's interconnection agreement does not contain a UNE available within the SGAT, Qwest will amend the agreement, on an expedited basis, to include the UNE without the need for the BFR process. For example, the additions of cageless collocation and DSL-capable loops have been added to agreements within two weeks. If a CLEC objects to the terms and conditions contained in the SGAT for an unbundled network element, it has the option to negotiate unique terms and conditions.

15

16

Q. WHO WILL BE RESPONSIBLE FOR MAINTAINING FACILITIES AND EQUIPMENT FOR UNE COMBINATIONS?

17

18

A. Qwest will maintain facilities and equipment that comprise the service provided to CLEC as a UNE Combination. The SGAT makes this clear.³¹

³¹ SGAT at 9.23.7.1

1 **Q. PLEASE EXPLAIN QWEST’S MAINTENANCE RESPONSIBILITIES**
 2 **FOR UNE-COMBINATIONS.**

3 A. Qwest will maintain standard UNE combinations in Washington utilizing
 4 defined maintenance flows. Exhibit KAS-9 contains a flowchart that
 5 delineates the tasks performed by Qwest personnel in order to maintain
 6 various combinations of UNEs and a matrix that describes all of the work
 7 identified in the flow chart.

8 **Q. HAVE PERFORMANCE MEASUREMENTS FOR UNE**
 9 **COMBINATIONS BEEN SPECIFICALLY IDENTIFIED?**

10 A. Yes. Qwest has participated in the ROC workshops and Technical
 11 Advisory Group (TAG) to identify which performance measurements are
 12 to be used for access to UNE combinations. Further product
 13 disaggregation of existing measurements have been developed and
 14 approved by the ROC for the OSS Test. The following measurements are
 15 currently being audited pursuant to the ROC OSS Test:

16

<i>Indicator Number</i>	<i>UNE-P Performance Indicator</i>
PO-2	Electronic Flow-through
PO-5	Firm Order Confirmation (FOCs) On Time
PO-8	Jeopardy Notice Interval
PO-9	Timely Jeopardy Notice Interval
OP-3	Installation Commitments Met
OP-4	Installation Interval
OP-5	New Service Installation Without Trouble Reports for 30 Days After Installation
OP-6	Delayed Days
OP-15	Interval for Pending Orders Delayed past Due Date
MR-3	Out of Service Cleared within 24 Hours
MR-4	All Troubles Cleared within 48 Hours
MR-6	Mean Time to Restore

<i>Indicator Number</i>	<i>UNE-P Performance Indicator</i>
PO-2	Electronic Flow-through
PO-5	Firm Order Confirmation (FOCs) On Time
PO-8	Jeopardy Notice Interval
PO-9	Timely Jeopardy Notice Interval
MR-7	Repair Repeat Report Rate
MR-8	Trouble Rate
MR-9	Repair Appointments Met
MR-10	Customer Related Trouble Reports

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18

When UNE-P performance results are available I will supplement this testimony. Attached at Exhibits KAS-13 and KAS-21 are the definitions for these PIDs.

Q. IS QWEST AWARE OF ANY WRITTEN COMPLAINTS WITH THE COMMISSION REGARDING CHECKLIST ITEM 2?

A. No.

Q. PLEASE PROVIDE A SUMMARY OF CHECKLIST ITEM 2.

A. Qwest has demonstrated that it satisfies checklist item 2 because it makes available all of the UNEs listed in Rule 319 and fulfills requests for additional unbundled network elements through the bona fide request process. Qwest not only provides CLECs with existing combinations of UNEs, Qwest will combine UNEs on behalf of CLECs. Qwest also allows CLECs to combine UNEs. As a result, Qwest has demonstrated that its provision of these UNEs is nondiscriminatory and allows CLECs to combine them in the provision of finished retail telecommunication services. Therefore, Qwest satisfies the portions of checklist item 2 identified in this testimony.

1 **IV. CHECKLIST ITEM 5 - UNBUNDLED TRANSPORT**

2 **Q. IS QWEST CURRENTLY OFFERING UNBUNDLED TRANSPORT?**

3 A. Yes. In this section of my testimony, I provide clear evidence that Qwest
4 *is currently* providing unbundled transport to CLECs in Washington. I also
5 review language in the Qwest SGAT that demonstrates that Qwest has a
6 *concrete and specific legal obligation* to provide unbundled transport.

7 **Q. WHAT ARE QWEST'S UNBUNDLED TRANSPORT OBLIGATIONS?**

8 A. The Act requires that Qwest provide "local transport from the trunk side of
9 a wireline local exchange carrier switch unbundled from switching or other
10 services."³²

11 **Q. PLEASE EXPLAIN THE CATEGORIES OF LOCAL TRANSPORT.**

12 A. The FCC defined two general categories of local transport in its Rule 319:

13 Dedicated Transport - incumbent LEC transmission facilities
14 dedicated to a particular customer or carrier

15 Shared Transport - transmission facilities shared by more than one
16 carrier, including the incumbent LEC

17

18 **Q. DOES QWEST HAVE A LEGALLY BINDING COMMITMENT TO**
19 **PROVIDE UNBUNDLED TRANSPORT?**

20 A. Yes. Qwest's SGAT specifically offers both dedicated and shared
21 transport:

22

23 Unbundled Dedicated Interoffice Transport (UDIT) provides CLEC
24 with a network element of a single transmission path between

³² See Section 271(c)(2)(B)(v) of the Act.

1 Qwest end offices, Serving Wire Centers or tandem switches in the
2 same LATA and state. A UDIT can also provide a path between
3 one CLEC in one Qwest Wire Center and a different CLEC in
4 another Qwest Wire Center. Extended Unbundled Dedicated
5 Interoffice Transport (EUDIT) provides the CLEC with a bandwidth
6 specific transmission path between the Qwest Serving Wire Center
7 to the CLEC's Wire Center or an IXC's point of presence located
8 within the same Qwest Serving Wire Center area.³³

9 Shared Transport is defined as interoffice transmission facilities
10 shared by more than one carrier, including Qwest, between end
11 office switches, between end office switches and tandem switches
12 (local and access tandems), and between tandem switches.³⁴

13 In addition, as identified in Exhibit KAS-3, numerous interconnection
14 agreements legally bind Qwest to provide unbundled transport to CLECs
15 in Washington.

16 **Q. HAS QWEST PROVISIONED UNBUNDLED TRANSPORT IN**
17 **WASHINGTON?**

18 A. Yes. Consistent with FCC requirements, and effective interconnection
19 agreements, Qwest is currently providing Unbundled Dedicated Interoffice
20 Transport (UDITs) to CLECs in Washington. The quantities as of October
21 31, 2000 are as follows:

22

DS0 Quantity	DS1 Quantity	DS3 Quantity	# of CLECs
0	70	72	8

23

24 Attached as Exhibit KAS-20C is a confidential document identifying to
25 whom Qwest is presently providing these commercial volumes.

³³ SGAT at 9.6.1.1

³⁴ SGAT at 9.8.1.1

1 **Q. DOES QWEST PUBLISH TECHNICAL SPECIFICATIONS OF**
2 **UNBUNDLED TRANSPORT?**

3 A. Yes. Specifications, interfaces and parameters are described in
4 Technical Publication 77389. Qwest technical publications have recently
5 been made available to CLECs on the following URL:
6 www.uswest.com/techpub/. Copyright © 1998 Qwest Communications
7 International, Inc. All rights reserved. Permission is given to view, copy,
8 print, and distribute material on this web site subject to the following
9 conditions:

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11 commercial purposes.
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13 copyright notice.
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15 World Wide Web site so long as the page containing the link properly
16 attributes the linked site to Qwest and does not in any way imply
17 Qwest's sponsorship of your site. However, you may not, without
18 obtaining Qwest's written permission, republish, redistribute or
19 otherwise make any copies, of the materials on the Qwest site, as a
20 part of the link, including by framing or similar means, or otherwise.
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22 permitted without the express written consent of Qwest.
- 23 • Misuse of Content and Copyrighted Materials Qwest has designated
24 an agent to receive notifications of alleged copyright infringement. If
25 you are aware of misuse of content or copyrighted materials, please
26 complete and submit a Copyright Infringement Notification Form.
27 Subscribers who feel that an infringement notification has been filed
28 in error may complete and submit a Copyright Infringement Counter
29 Notification Form. The completed forms will automatically be sent to
30 the designated agent.

31 In addition, the Interconnect & Resale Resource Guide (IRRG) provides
32 CLECs with additional product information. CLECs can access the
33 IRRG at URL: <http://www.uswest.com/wholesale/>.

1 **Q. WHAT SPECIFICALLY IS UNBUNDLED DEDICATED INTEROFFICE**
2 **TRANSPORT?**

3 A. Qwest provides unbundled access to dedicated transmission facilities
4 between Qwest end offices or between Qwest end offices and CLEC end
5 offices. Qwest provides interoffice facilities between its end offices and
6 serving wire centers (SWC), its SWCs and IXC POPs, its tandem
7 switches and SWCs, and between its end offices or tandems and the wire
8 centers of Qwest and requesting carriers.³⁵ In a manner consistent with
9 historical pricing policies, dedicated transport consists of two cost-based
10 rate elements.

11

12 **Q. PLEASE DESCRIBE THE RATE ELEMENTS FOR UNBUNDLED**
13 **TRANSPORT.**

14 A. Unbundled Dedicated Interoffice Transport (UDIT) is a distance-sensitive,
15 flat-rated bandwidth-specific interoffice transmission path designed to a
16 digital cross-connect system in each Qwest Wire Center. Extended
17 Unbundled Dedicated Interoffice Transport (E-UDIT) provides CLEC with
18 a bandwidth specific transmission path between the Qwest Serving Wire
19 Center to CLEC's Wire Center or an IXC's point of presence located
20 within the same Qwest Serving Wire Center area. E-UDIT is a flat-rated,
21 bandwidth-specific interoffice transmission path. Exhibit KAS-10 provides
22 a diagram of UDIT and E-UDIT. UDITs two components are priced
23 differently to reflect the way costs are incurred.

24 The SGAT, for example, offers unbundled dedicated interoffice transport
25 between Qwest end offices, serving wire centers or tandem switches in the

³⁵ SGAT at 9.6.1.1

1 same LATA and state.³⁶ E-UDITs and UDITs are available in DS1 through
2 OC-192 bandwidths and such higher capacities as evolve over time where
3 facilities are available.³⁷ UDIT is also available in DS0 bandwidth.

4 **Q. DOES QWEST MAKE MULTIPLEXING AVAILABLE AS AN OPTION?**

5 A. Yes. In Arizona, CLECs questioned whether multiplexing is optional.
6 Qwest has modified Sections 9.6.1.2 and 9.6.2.2 to clarify that
7 multiplexing is an option available to CLECs.

8 **Q. DOES QWEST PROVIDE CLECS WITH THE OPTION TO**
9 **RECONFIGURE TRANSPORT FACILITIES?**

10 A. Yes. Qwest provides Unbundled Customer Controlled Rearrangement
11 Element (UCCRE). UCCRE is the wholesale version of Special Access
12 Customer Controlled Network Reconfiguration service. UCCRE allows
13 the CLEC to configure elements through the manipulation of ports on the
14 Digital Cross-Connect System (DCS). The First Report and Order
15 required ILECs to provide digital cross connect capabilities to CLECs in
16 the same manner an ILEC offers it to Interexchange carriers. Qwest
17 offers the CLEC UCCRE to provide the same Customer Controlled
18 Network Reconfiguration. The Qwest SGAT states:

19 9.9.1 Description

20 9.9.1.1 Unbundled Customer Controlled Rearrangement Element
21 (UCCRE) provides the means by which CLEC controls the
22 configuration of unbundled network elements (UNEs) or ancillary
23 services on a near real time basis through a digital cross connect

³⁶ SGAT at 9.6.1.1

³⁷ The SGAT originally listed bandwidth through OC-12. To address CLEC concerns in Arizona, Qwest has listed bandwidths through OC-192 in SGAT section 9.23.3.7. Bandwidths above OC-12 require the use of the SRP.

1 device. UCCRE utilizes the Digital Cross-Connect System (DCS).
2 UCCRE is available in Qwest Wire Centers that contain a DCS and
3 such DCS is UCCRE compatible.

4 Qwest has not yet received any requests for UCCRE in its 14-state
5 territory. However, Qwest's ability to provision UCCRE was included in
6 the Bench Test for unbundled switching detailed later in this testimony.

7

8 **Q. PLEASE DESCRIBE SHARED TRANSPORT.**

9 A. Shared transport allows CLECs to utilize the same routing tables and to
10 share the exact interoffice transmission facilities that Qwest utilizes for its
11 own end users. The shared transport facilities connect Qwest end office
12 switches with other Qwest end office switches and/or with Qwest tandem
13 switches for the delivery of traffic within the local calling area. A CLEC
14 may not utilize Unbundled Dedicated Interoffice Transport (UDIT) and
15 shared transport for interoffice trunking in the same local calling area.

16

17 **Q. UNDER WHAT CONDITIONS DOES QWEST MAKE SHARED**
18 **TRANSPORT AVAILABLE TO CLECS?**

19 A. Shared transport is a UNE available only in conjunction with unbundled
20 switching. The FCC in its Third Report and Order recognized this
21 limitation:

22

23 A requesting carrier that uses its own self-provisioned local
24 switches, rather than unbundled local switches obtained from an
25 incumbent LEC, to provide local exchange and exchange access
26 services would use dedicated transport facilities to carry traffic
27 between its network and the incumbent LEC's network. Thus, the

1 only carrier that would need shared transport facilities would [be]
2 one that was using an unbundled local switch.³⁸

3 **Q. WHAT DOES SHARED TRANSPORT PROVIDE FOR CLECS?**

4 A. Shared transport provides CLECs (who serve their end user customers
5 via unbundled switching) a means of transporting traffic from their
6 customers to distant end offices or interexchange carriers. Each CLEC
7 call uses the same routing table as used for Qwest calls. Therefore, with
8 shared transport, the CLEC call uses the identical transport facilities that
9 are available to Qwest calls.

10 **Q. DOES QWEST ALLOW A CLEC USING SHARED TRANSPORT TO**
11 **ROUTE TO NON-QWEST DA AND OPERATOR SERVICES?**

12 A. Yes. The CLEC can use custom routing to direct their end user's operator
13 services and/or directory assistance (DA) in a different manner than
14 Qwest routes its own operator services and directory assistance calls. For
15 this application, the CLEC provides Qwest the information necessary for
16 Qwest to create a custom routing table that is programmed within the
17 Qwest central office switch.

18 **Q. DOES SHARED TRANSPORT INCLUDE ALL FACILITIES BETWEEN**
19 **QWEST AND AN INTEREXCHANGE CARRIER?**

20 A. No. Just as with Qwest's retail end users, when a CLEC customer
21 originates a call routed to an interexchange carrier, the only portion of the
22 Qwest interoffice network that is available via shared transport is the
23 facility from the Qwest end office to the Qwest access tandem.

24 Facilities dedicated to an interexchange carrier's use, such as a direct
25 facility from the Qwest end office or tandem to the interexchange carrier's

³⁸ Third Interconnection Order, footnote 127. (emphasis added)

1 point of presence, are not part of shared transport. This is consistent with
2 the FCC findings for shared transport:

3 On reconsideration, we further clarify that incumbent LECs are not
4 required to provide shared transport between incumbent LEC
5 switches and serving wire centers. We stated above that shared
6 transport must be provided between incumbent LEC switches.
7 Serving wire centers are merely points of demarcation in the
8 incumbent LEC's network, and are not points at which traffic is
9 switched. Traffic routed to a serving wire center is traffic dedicated
10 to a particular carrier. We thus conclude that unbundled access to
11 the transport links between incumbent LEC switches and serving
12 wire centers must only be provided by incumbent LECs on a
13 dedicated basis.³⁹

14 **Q. HOW IS SHARED TRANSPORT BILLED?**

15 A. Shared transport is billed on a minutes-of-use basis in accordance with
16 section 252(d)(1) and as described in the SGAT:

17 9.8.3.1 Shared Transport will be billed on a minute-of-use basis in
18 accordance with the UNE rates described in Exhibit A.

19 **Q. DOES QWEST'S SGAT ADDRESS ITS COMPLETE LEGAL**
20 **REQUIREMENTS FOR SHARED TRANSPORT?**

21 A. Yes. In other workshops, AT&T has expressed concerns that the SGAT
22 language regarding shared transport does not capture certain legal
23 requirements. While Qwest did not agree with AT&T's assertion, in an
24 effort to clarify the situation, Qwest has added the following FCC language
25 as Section 9.8.2.3:

26 9.8.2.3 Qwest has the following obligations with respect to
27 shared transport:
28

³⁹ Third Interconnection Order, ¶129.

1 9.8.2.3.1 Provide shared transport in a way that enables the traffic
2 of CLEC to be carried on the same transport facilities
3 that Qwest uses for its own traffic.

4 9.8.2.3.2 Provide shared transport transmission facilities between
5 end office switches, between end office and tandem
6 switches, and between tandem switches in its network.

7 9.8.2.3.3 Permit CLEC that purchases unbundled shared transport
8 and unbundled switching to use the same routing table
9 that is resident in Qwest's switch.

10 9.8.2.3.4 Permit CLEC to use shared (or dedicated) transport as
11 an unbundled element to carry originating access traffic
12 from, and terminating to, customers to whom the CLEC
13 provide local exchange service.

14

15 **Q. CAN YOU EXPLAIN THE PROVISIONING PROCESS FOR**
16 **UNBUNDLED DEDICATED INTEROFFICE TRANSPORT?**

17 A. Yes. Qwest will provision unbundled dedicated transport in Washington
18 utilizing a defined order and provisioning flow. Exhibit KAS-11 contains a
19 flowchart that delineates the tasks performed by Qwest personnel in order
20 to provide unbundled transport. This exhibit also includes a matrix that
21 describes each of the work tasks identified in the flow chart. Qwest will
22 follow these steps each time unbundled transport is ordered in
23 Washington

24 **Q. CAN YOU EXPLAIN THE PROVISIONING PROCESS FOR SHARED**
25 **TRANSPORT?**

26 A. Yes. The unbundled switching process and provisioning flows contained
27 in Exhibit KAS-18 are also used for unbundled shared transport. There is
28 no need for a separate process flow for shared transport since shared

1 transport is automatically provisioned with unbundled switching unless the
2 CLEC specifically selects otherwise.

3

4 **Q. DOES QWEST REQUIRE CLECS TO PERFORM CONNECTIONS**
5 **BETWEEN UDIT AND E-UDIT IF ORDERED IN COMBINATION?**

6 A. No. In Arizona, AT&T expressed concerns that CLECs may be required
7 to perform connections between UDIT and E-UDIT if they are ordered in
8 combination. To address those concerns, Qwest has added the following
9 language to Section 9.6.2.1:

10 To the extent that CLEC is ordering access to a UNE Combination,
11 Qwest will perform requested and necessary cross-connections
12 between UNEs in the same manner that it would perform such
13 cross-connections for its end user customers.

14

15 **Q. WHAT ARE QWEST'S RESPONSIBILITIES FOR UNBUNDLED**
16 **TRANSPORT MAINTENANCE?**

17 A. Qwest maintains unbundled transport in Washington utilizing defined
18 maintenance flows. Exhibit KAS-12 contains a flowchart that delineates
19 the tasks performed by Qwest personnel in order to maintain unbundled
20 transport and a matrix that describes all of the work identified in the flow
21 chart. Maintenance and repair of dedicated and shared transport facilities
22 are the sole responsibility of Qwest.

23 **Q. HAVE PERFORMANCE MEASURES BEEN ESTABLISHED FOR**
24 **UNBUNDLED TRANSPORT?**

25 A. Yes. Currently, the parties in the ROC proceeding have agreed that
26 Qwest should track 10 different performance measurements for dedicated

1 unbundled transport. These measurements concern either the
2 installation/provisioning of DS1 and above DS1 UDITs or the
3 repair/maintenance of these facilities. The agreed-upon measurements
4 for unbundled transport are listed in the table below. The definitions can
5 be found in Exhibit KAS-13.

6

<i>Indicator Number</i>	<i>Checklist Item 5 Performance Indicator</i>
OP-3	Installation Commitments Met
OP-4	Installation Interval
OP-5	New Service Installation Without Trouble Reports for 30 Days After Installation
OP-6	Delayed Days
OP-15	Interval for Pending Orders Delayed past Due Date
MR-5	Out of Service Cleared within 4 Hours (designed repair process)
MR-6	Mean Time to Restore
MR-7	Repair Repeat Report Rate
MR-8	Trouble Rate
MR-10	Customer Related Trouble Reports

7

8 **Q. ARE PERFORMANCE RESULTS AVAILABLE FOR UNBUNDLED**
9 **DEDICATED TRANSPORT?**

10 A. Yes. As of October 31, 2000, Qwest has provisioned 70 DS1 UDIT
11 orders and 72 orders for DS3 UDITs in Washington. However, this limited
12 volume over two product categories and several reporting periods,
13 produced inconclusive performance results data for the State of
14 Washington. The actual performance results using the PIDs listed above
15 for Washington are contained in Exhibit KAS-14.

1 **Q. IS QWEST AWARE OF ANY WRITTEN COMPLAINTS WITH THE**
2 **COMMISSION REGARDING CHECKLIST ITEM 5?**

3 A. Yes. New Edge Networks filed a complaint with the Commission
4 regarding lack of facilities for UDIT, Docket Number UT-000141. MCI
5 filed a complaint regarding UDIT, Docket Number UT-980323. MCI
6 withdrew this complaint.

7 **Q. PLEASE PROVIDE A SUMMARY OF CHECKLIST ITEM 5.**

8 A. Through its SGAT, Qwest provides CLECs with access to unbundled
9 dedicated transport as well as shared transport. Qwest has successfully
10 provisioned UDITs for CLECs in Washington. When combined with the
11 ROC OSS Testing, Qwest has established that it can provision, maintain
12 and bill these checklist items upon request and in a timely manner thereby
13 providing CLECs with a meaningful opportunity to compete. In addition,
14 Qwest, through its Bench Test, has demonstrated it can provision,
15 maintain and bill these checklist items in combination with unbundled local
16 switching. Therefore, the Commission should find that Qwest satisfies
17 checklist item 5.

18 **V. CHECKLIST ITEM 6 – UNBUNDLED SWITCHING**

19 **Q. WHAT ARE QWEST’S SECTION 271 OBLIGATIONS TO PROVIDE**
20 **LOCAL SWITCHING?**

21 A. Checklist Item 6 requires Qwest to provide “local switching unbundled
22 from transport, local loop transmission or other services.”⁴⁰ However, as
23 identified earlier in my testimony, in its UNE Remand Order, the FCC

⁴⁰ See Section 271(c)(2)(B)(vi) of the Act.

1 applied the “necessary and impair” analysis and subsequently released its
2 revised list of UNEs under Section 251(c)(3). The new list, set forth in
3 Rule 51.319, establishes that in certain circumstances unbundled
4 switching is no longer a Section 251(c)(3) UNE. However, Qwest, as a
5 RBOC seeking to satisfy Section 271 checklist requirements, must
6 continue to offer unbundled switching to all competitors in all areas
7 (including the Seattle MSA at market-based rates) because local circuit
8 switching is still item 6 on the checklist.

9 **Q. PLEASE EXPLAIN WHY UNBUNDLED SWITCHING IS NOT A UNE IN**
10 **CERTAIN CIRCUMSTANCES?**

11 A. Specifically, unbundled switching is no longer a Section 251(c)(3) UNE in
12 the top fifty metropolitan statistical areas (MSA), in areas that are “Density
13 Zone One,” for businesses with four lines or more, when the ILEC offers
14 EEL.⁴¹ The two Switching-Exempt Wire Centers⁴² in the Seattle MSA
15 meet this definition. As detailed in this testimony, Qwest has a concrete
16 and specific legal obligation to offer EELs in the two Switching-Exempt
17 Wire Centers, and as a result does not offer unbundled switching as a
18 TELRIC-priced UNE in those wire centers.

19 The FCC’s rules require ILECs to offer: (1) line-side ports and switching,
20 including the connection between a line equipment termination at a Main
21 Distribution Frame (MDF) or COSMIC frame and a line card; (2) the
22 connection between the trunk-side of the switch (the trunk card) and a
23 termination at the trunk main distribution frame (TMDF... a transport

⁴¹ Third Interconnection Order and Fourth Further Notice, Appendix C,
51.319(c)(B).

⁴² The two Switching Exempt Wire Centers in the Seattle MSA are Seattle Main
(STTLWA06) and Seattle Elliott (STTLWAEL).

1 multiplexer cross-connect); and (3) all features, functions and capabilities
2 of the switch.⁴³

3 As described above, the FCC has determined that unbundled switching is
4 not a Section 251(c)(3) UNE in the top fifty MSAs, in areas that are
5 “Density Zone One,” for businesses with four lines or more, when the
6 ILEC offers EEL.⁴⁴ The FCC determined:

7 278. Despite our conclusion that, in general, requesting carriers are
8 impaired without access to unbundled switching, we conclude
9 that it is appropriate to establish a more narrowly tailored rule
10 to reflect significant marketplace developments. As described
11 more fully below, we find that requesting carriers are not
12 impaired without access to unbundled local circuit switching
13 when they serve customers with four or more lines in density
14 zone 1 in the top 50 metropolitan statistical areas (MSAs), as
15 set forth in Appendix B, where incumbent LECs have provided
16 nondiscriminatory, cost-based access to the enhanced
17 extended link (EEL) throughout density zone 1.⁴⁵

18 However, Qwest, as a BOC seeking to satisfy Section 271 checklist
19 requirements, must continue to offer (at UNE or market-based prices as
20 appropriate) unbundled switching to all competitors in all areas because
21 local circuit switching is on the checklist.

22 **Q. DOES QWEST OFFER UNBUNDLED SWITCHING TO CLECS?**

23 A. Yes. Qwest offers CLECs access to unbundled switching. The
24 Washington SGAT states:

25 Access to unbundled Local Switching encompasses line-side and
26 trunk-side facilities, plus the features, functions, and capabilities of
27 the switch. The features, functions, and capabilities of the switch

⁴³ First Interconnection Order at ¶410.

⁴⁴ Third Interconnection Order and Fourth Further Notice, Appendix C,
51.319(c)(B).

⁴⁵ UNE Remand Order, ¶278.

1 include the basic switching function, as well as the same basic
2 capabilities that are available to Qwest's end-user customers.
3 Unbundled Local Switching also includes access to all vertical
4 features that the switch is capable of providing, as well as any
5 technically-feasible customized routing functions.⁴⁶

6 **Q. DOES QWEST MEET THE FCC REQUIREMENTS FOR WITHDRAWING**
7 **UNBUNDLED SWITCHING AS A UNE IN THE SEATTLE MSA?**

8 A. Yes. Qwest does offer the FCC required combination of loop and
9 transport, i.e. "EELs", that permits Qwest to withdraw unbundled switching
10 as a UNE in the two Switching-Exempt Wire Centers noted below. This
11 limitation is identified in the SGAT:

12 9.11.2.5 Unbundled Switching (Shared Transport) does not
13 constitute a UNE, and is therefore not available at UNE
14 rates when the end-user customer to be served with
15 Unbundled Local Switching has four access lines or more
16 and the lines are located in density zone 1 in specified
17 Metropolitan Statistical Areas (MSAs).

18 9.11.2.5.1 For the purposes of the above paragraph, the following
19 Wire Centers constitute density zone 1 in each of the
20 specified MSAs:

MSA	CLLI	Wire Center Name
Seattle	STTLWA06	Seattle Main
	STTLWAEL	Seattle Elliott

21
22 **Q. HOW WILL QWEST MEET ITS 271 CHECKLIST OBLIGATION FOR**
23 **SWITCHING IN DENSITY ZONE ONE?**

24 A. To meet its 271 checklist requirements, Qwest will offer stand-alone
25 unbundled circuit switching to CLECs (at market based rates) in areas

⁴⁶ SGAT at 9.11.1.1

1 that are "Density Zone One" for use by businesses with four lines or
2 more.⁴⁸

3 **Q. PLEASE DESCRIBE HOW QWEST WILL ADMINISTER THE FOUR**
4 **LINES OR MORE LIMITATION.**

5 A. To clarify how the "four lines" or more will be calculated, Qwest has
6 modified the SGAT to provide CLECs with the following guidelines:

- 7 9.11.2.5.2. This exclusion will be calculated using the
8 number of DS0-equivilant access lines CLEC
9 intends to serve an end user customer within a
10 Wire Center specified above.
- 11 9.11.2.5.3. UNE-P is not available for end user customers
12 with four or more access lines located within
13 one of the Wire Centers specified above.
- 14 9.11.2.5.4. Only dial-tone lines shall be used in counting
15 the exclusion. Private line type data lines,
16 alarm or security lines, or any other type of
17 non-dial-tone lines shall not be used in the
18 count.
- 19 9.11.2.5.5. The high frequency portion of a loop shall not
20 count as a second line.
- 21 9.11.2.5.6. End-users shall be considered individually in
22 MDU buildings or any other multiple use or
23 high-rise building or campus configuration, as
24 long as they are individually billed as the
25 customer of record.
- 26 9.11.2.5.7. When a CLEC's customer with three lines or
27 fewer served by UNE-P or unbundled switching
28 adds lines so that it has four or more lines,
29 CLEC shall convert such lines from UNE-P or
30 unbundled switching to resale rates or other
31 appropriate arrangement within 60 days.
- 32 9.11.2.5.8. A basic rate ISDN line counts as one line.
33

⁴⁸ SGAT at 9.11.2

1 **Q. HAS QWEST PROVISIONED UNBUNDLED SWITCHING IN**
2 **WASHINGTON?**

3 A. No. As of October 31, 2000, no Washington CLEC has ordered stand-
4 alone unbundled switching. Qwest has only provisioned unbundled
5 switching as part of UNE-P combinations. Qwest does not believe that
6 there will be any demand for stand-alone unbundled switching. CLECs
7 can and clearly do provide their own central office switching and they do
8 not appear to require a direct connection of their loops to a Qwest central
9 office switch. Many CLECs have purchased switches that are identical to
10 those used by Qwest.

11 **Q. PLEASE DESCRIBE UNBUNDLED SWITCHING.**

12 A. The SGAT requires Qwest to provide unbundled circuit switching that
13 includes the line-side and trunk-side cards, plus the features, functions,
14 and basic switching capabilities of the switch.⁴⁹ Unbundled switching
15 includes access to all vertical features that the switch is capable of
16 providing, for example, customized routing functions. A CLEC can use a
17 combination of a trunk-side port and custom routing to direct originating
18 traffic to a dedicated trunk group such as a directory assistance trunk
19 group.

20 **Q. CAN A CLEC USE UNBUNDLED SWITCHING TO PROVIDE LOCAL**
21 **SERVICE?**

22 A. Yes. A CLEC may purchase unbundled switching to offer functionality
23 and to bill for exchange access and termination of local traffic.

⁴⁹ SGAT at 9.11.1.1.

1 Specifically, the SGAT⁵⁰ commits Qwest to provide the CLEC with analog
2 and digital line ports that include the following attributes:

- 3 • Telephone Number
- 4 • Directory Listing
- 5 • Dial Tone
- 6 • Signaling (loop or ground start)
- 7 • On/Off Hook Detection
- 8 • Audible and Power Ringing
- 9 • Automatic Message Accounting (AMA) Recording
- 10 • Access to 911, Operator Services, and Directory Assistance
- 11 • Call Type Blocking Options (e.g. 900 services)
- 12

13 **Q. WHAT INFORMATION DOES QWEST PROVIDE CLECS TO ALLOW**
14 **THEM TO BILL THEIR END USERS AND INTEREXCHANGE**
15 **CARRIERS?**

16 A. Qwest provides CLECS with the following information for billing:

- 17 • Monthly summary bill listing all CLEC end user customers including the
18 following items:
 - 19 • Line Rate
 - 20 • Local minutes of use
 - 21 • Intrastate toll (if applicable)
 - 22 • Features
- 23 • Daily usage feed with usage detail per line number
- 24 • Daily switched access record for switched access usage to allow
25 CLECs to bill the correct IXC

50 SGAT at 9.11.1.6

1 **Q. WHAT ARE THE FCC GUIDELINES FOR QWEST TO PROVIDE**
2 **VERTICAL FEATURES?**

3 A. The FCC has determined⁵¹ that an ILEC must meet the following requests
4 for vertical features:

5 [A] BOC must activate any vertical feature or combination of vertical
6 features requested by a competing carrier unless . . . (it) is not technically
7 feasible.

8 [A] BOC can require a requesting carrier to submit a request for such a
9 vertical feature through a predetermined process that gives a BOC an
10 opportunity to ensure it is technically feasible...

11 **Q. ARE ALL VERTICAL FEATURES LOADED IN A QWEST SWITCH**
12 **AVAILABLE TO CLECS?**

13 A. Yes. CLECs have access to all vertical features loaded in a Qwest
14 switch, not just access to the features Qwest is providing its retail
15 customers.

16 **Q. IS THERE A PROCESS FOR CLECS TO REQUEST FEATURES NOT**
17 **ACTIVATED OR LOADED ON A QWEST SWITCH?**

18 A. Yes. CLECs can use the Special Request Process (SRP) to activate
19 features in the switch or to request that features be loaded into the switch.
20 Specifically, the proposed SGAT states:

21 9.11.4.3 Non-switch activated Vertical Features shall be ordered
22 using the Special Request Process set forth in Exhibit F. Qwest will
23 provide the cost and timeframe for activation of the requested
24 vertical feature(s) to the CLEC within 15 business days of receipt of
25 the Special Request.

26 9.11.4.4 Non-switch resident Vertical Features shall be ordered
27 using Special Request Process set forth in Exhibit F. Qwest will

⁵¹ BellSouth Louisiana 271 Second Order at ¶¶ 219-20.

1 provide information to the CLEC on the feasibility of providing the
2 vertical feature(s) within 15 business days of receipt of the Special
3 Request.

4

5 **Q. DOES QWEST'S SGAT INCLUDE THE FCC REQUIREMENTS FOR**
6 **PROVIDING VERTICAL FEATURES?**

7 A. Yes. The Qwest SGAT provides CLECs with access to vertical features.
8 A CLEC must order vertical features in association with unbundled
9 switching. The SGAT provides:

10 9.11.1.8 Vertical features are software attributes on end office
11 switches. Vertical features are available separately and
12 are listed in Exhibit E of this Agreement.
13

14 **Q. HOW CAN CLECS DETERMINE WHAT VERTICAL FEATURES ARE**
15 **AVAILABLE IN A QWEST CENTRAL OFFICE?**

16 A. The CLEC has three ways available through the IRRG to determine the
17 features available in an end user's serving central office at
18 <http://www.uswest.com/wholesale/guides/index.html>.

19 The *first way* is using a pull down menu shown called "Tariff & Network
20 Info." From this menu a link is available called "Interconnection
21 Databases." Once the Interconnection Databases (ICONN) link has been
22 selected, the CLEC would select "Central Office Find." This allows the
23 CLEC to use the end users NPA NXX to pull information about the serving
24 wire center. The information includes wire center switch code or CLLI
25 codes, switch type, and switch generic. The CLLI code has an additional
26 link for more specific information about the wire center. Additionally, the
27 CLLI code can be noted down and used on another link on the page
28 "Switch Features" to get a complete listing of all the available features in
29 the wire center.

1 The *second way* is shorter but depends on the CLEC knowing the CLLI
2 code of the serving office. In this situation the CLEC can go directly to the
3 IRRG/ICONN screen <http://www.uswest.com/cgi-bin/iconn/iconn.pl> and
4 select "Switch Features." The CLEC can select the desired CLLI code
5 from a pull down menu and then receive a complete listing of that wire
6 center's features.

7 *Third*, a full list of all available USOCs and FIDs with English translations
8 is available at this web site. To access the USOC definitions, the CLEC
9 can go to the IRRG <http://www.uswest.com/wholesale/guides/index.html>,
10 then pull down the Resource & Tools menu and select USOC/FID Finder.
11 To do a USOC search, the CLEC should click on USOC Search. The
12 next screen allows the CLEC to enter the desired USOC. A list of all
13 USOCs that contain the USOC characters entered by the CLEC is then
14 returned. To obtain the USOC definition just click on the exact USOC
15 desired. The final screen provides the USOC definition.

16 The process can be shortened by going directly to the USOC Search
17 screen <http://usocfidfind.uswest.com/prodquery/usocSearch.html>.

18 **Q. IS THERE AN ALTERNATIVE TO USING THE IRRG?**

19 Yes. A CLEC who uses IMA can also determine "feature availability"
20 through IMA. A feature availability query function in IMA provides all
21 features and functions for a particular wire center.

22 **Q. HOW IS QWEST'S FEATURE INFORMATION DISPLAYED?**

23 A. Whether a CLEC is using the IRRG or IMA, the features and functions are
24 depicted as USOCs. USOCs are the Telcordia code representing the
25 features and/or functions. The IMA query provides a USOC definition in

1 its response. The IRRG USOCs would need to be looked up in reference
2 material provided.

3 **Q. DOES QWEST ALLOW CLECS ACCESS TO INDIVIDUAL FEATURES?**

4 A. Yes. Qwest provides CLECs with access to individual features, and not
5 feature packages, so that a CLEC is not required to purchase and/or
6 activate any features it does not want to have on an individual customer's
7 local exchange line.⁵²

8 **Q ARE THERE FEATURES OR OTHER SERVICES THAT ARE NOT**
9 **AVAILABLE WITH UNBUNDLED SWITCHING?**

10 A. Yes. Qwest's Advanced Intelligent Network (AIN) features, voice
11 messaging service and Qwest DSL are not available with unbundled
12 switching. The complete list of features and related USOCs not available
13 with unbundled switching can be found in Exhibit KAS-15.

14 **Q. DID THE FCC SPECIFICALLY ADDRESS AIN FEATURES IN THE UNE**
15 **REMAND ORDER?**

16 A. Yes. The FCC stated in the UNE Remand order:

17 We agree with Ameritech that unbundling AIN service software such
18 as "Privacy Manager" is not "necessary" within the meaning of the
19 standard in section 251(d)(2)(A). In particular, a requesting carrier
20 does not need to use an incumbent LEC's AIN service software to
21 design, test, and implement a similar service of its own. (820)
22 Because we are unbundling the incumbent LECs' AIN databases,
23 SEC, SMS, and STPs, requesting carriers that provision their own
24 switches or purchase unbundled switching from the incumbent will
25 be able to use these databases to create their own AIN software
26 solutions to provide services similar to Ameritech's "Privacy

⁵² Except for the limited circumstances where vendors' specific ISDN telephone set features are only available as packages.

⁵³ UNE Remand Order ¶419.

1 Manager.” They therefore would not be precluded from providing
2 service without access to it. **Thus, we agree with Ameritech and**
3 **BellSouth that AIN service software should not be**
4 **unbundled.**⁵⁴ (Emphasis added)

5 Therefore, Qwest believes that the FCC has determined that AIN features
6 are proprietary. When ILECs make the AIN platform available for CLECs
7 to develop their own AIN features, ILEC features do not need to be
8 unbundled.

9 **Q. DOES QWEST MAKE THE AIN PLATFORM AVAILABLE TO CLECS?**

10 A. Yes. Qwest provides access to the Service Creation Environment (SCE)
11 and AIN database for CLECs to develop their own AIN features.
12 However, Qwest does not provide access to its own AIN features. This is
13 consistent with the FCC order that specifically stated ILECs are not
14 required to unbundle AIN features.⁵⁵ This restriction in no way
15 disadvantages the CLEC in accessing features that a central office
16 technically has available. Regardless of how Qwest has decided to offer
17 a central office feature, the CLEC can make a different choice, and
18 choose to have that feature provided by the central office switch.

19 **Q. ARE THE QWEST AIN FEATURES PROPRIETARY?**

20 A. Yes. While Qwest uses platforms developed by Telcordia for the
21 development and deployment of all Qwest AIN services, those platforms
22 have a component, called SPACE (Service Provisioning and Creation
23 Environment), that is used to create new and unique services. SPACE is
24 software owned by Telcordia and is proprietary to Telcordia. SPACE
25 converts computer programs written in a text format into computer code.
26 AIN features are programs that Qwest’s engineers create and write.

⁵⁴ UNE Remand Order ¶419. Footnotes 820 and 821 were omitted.

⁵⁵ UNE Remand Order ¶419.

1 SPACE is a programming language that Qwest uses to compile and
2 create its own AIN features. Qwest has developed the AIN services and
3 features it has deployed. The former "Advanced Technologies" (AT)
4 organization within Qwest wrote the service requirements and design
5 documents. In all cases but one, the AT organization did the development
6 (that is, the "coding") of the service using the SPACE software mentioned
7 above. This one exception was due to a resource constraint at AT, and
8 the work was contracted to Telcordia to do the actual "coding" of the
9 service on SPACE.⁵⁶ In all cases for all services, AT then did the product
10 testing and deployment of the service into the Qwest network.

11 In addition to the requirements, design, implementation, and testing, AT
12 assisted the various business units in performing customer testing on
13 various features and functions. In addition to the engineers, developers,
14 and testers, AT employed several staff with Human Factors backgrounds
15 who would work with customer participants to discover the customer's
16 reactions to different feature sets. Based on these trials, and the analysis
17 of the Human Factors staff, specific recommendations were made to the
18 requirements, design and implementation of most of these services.

19 **Q. HAS QWEST PATENTED ANY AIN FEATURES?**

20 A. Yes. Qwest has patents that have been issued by the United States
21 Patent Office for AIN services and other applications have been filed with
22 the patent office. Attached as Exhibit KAS-16C, is a confidential exhibit
23 that identifies the Qwest AIN patents and patent applications. Qwest also
24 has trademarks on several of the service names.

25 The AIN services that Qwest has developed are also unique in regard to
26 their actual implementation (that is, the "code"). Qwest has specified the

⁵⁶ This exception was a work for hire.

1 requirements for all services based on its unique customer base, region,
2 and in some cases, based on state PUC requirements. In addition, the
3 service implementations are also unique because of the framework that
4 Qwest has developed for the execution and support of AIN services.
5 Qwest has developed several feature managers (for which a patent was
6 granted in 1995) that allows Qwest to provision more than one AIN
7 service to a subscriber.

8 **Q. WHICH OF THE PATENTS ON KAS-16C ARE ACTUAL EXISTING**
9 **PATENTS AND WHICH ONES ARE PENDING PATENTS?**

10 A. All of the patents that have a seven digit number preceding them, all of
11 which start with the number "5", are existing patents. All of the patents
12 that have a two digit number (like "08" or "09") followed by a backslash
13 and a six digit number are pending patents as of October 26, 2000.

14 **Q. DOES QWEST SEEK AIN PATENTS BEFORE THE WORK IS DONE**
15 **OR IS THE WORK PERFORMED BEFORE THE PATENT IS SOUGHT?**

16 A. The general rule is that the work on these patents is substantially
17 performed first, and then the patent application is filed. For example,
18 patent number 5,448,631 is listed as a patent under every AIN feature.
19 This patent was put on file before AIN was rolled out. This patent covers
20 the basic concept of how you set up more than one AIN feature on a line
21 and allows AIN features to be added on an automated basis. It also
22 resolves conflicts in AIN features regarding which one should execute first
23 (ex. No Solicitation vs. Do Not Disturb).

24 **Q. IS THE APPARATUS PATENTED OR JUST THE METHOD?**

25 A. A specific answer requires a review and analysis of each patent
26 individually. Generally, patents that have the word apparatus in the title

1 are apparatus patents. However, these same patents often may have
2 methodology patents included in them as well. The term apparatus is
3 used broadly. It may cover a combination of devices and is not limited to
4 a particular manufacturer.

5 **Q. DOES QWEST PROVIDE CUSTOM ROUTING IN CONJUCTION WITH**
6 **UNBUNDLED SWITCHING?**

7 A. Yes. Qwest's unbundled switching element also includes the option for
8 the CLEC to order custom routing. Custom routing allows a CLEC that
9 obtains unbundled local switching to route its customers' calls to special
10 trunk groups designated by the CLEC. For example, custom routing
11 allows a CLEC's 411 calls to be routed to the CLEC's directory assistance
12 trunk group (rather than on Qwest's directory assistance trunk group).
13 This allows CLECs to route their customers' 411 calls to the CLECs' own
14 choice of directory assistance provider.

15 **Q. DOES QWEST PROVIDE UNBUNDLED TANDEM SWITCHING?**

16 A. Yes. Qwest offers CLECs unbundled tandem switching. The FCC
17 requirement for unbundled tandem switching⁵⁷ is contained within the
18 proposed SGAT:

⁵⁷ First Interconnection Order at ¶425.

1 9.10.1 The local tandem switching element includes the
2 facilities connecting the trunk distribution frames to
3 the switch and all the functions of the switch itself,
4 including those facilities that establish a temporary
5 transmission path between two other switches, but
6 does not include the transport needed to complete
7 the call. The local tandem switching element also
8 includes the functions that are centralized in local
9 tandem switches rather than in separate end office
10 switches.

11 **Q. ARE QWEST'S COMPLETE OBLIGATIONS FOR PROVIDING**
12 **UNBUNDLED TANDEM SWITCHING IN THE WASHINGTON SGAT?**

13 A. Yes. In Arizona, AT&T expressed concerns that Qwest's language did not
14 fully capture the FCC's requirements for unbundled tandem switching. To
15 address AT&T's concerns, Qwest has added the following language
16 proposed by AT&T:

17 9.10.2.2 The requirement to provide access to unbundled tandem
18 switching includes: (i) trunk-connect facilities, including but
19 not limited to the connection between trunk termination at
20 a cross-connect panel and a switch trunk card; (ii) the base
21 switching function of connecting trunks to trunks; and (iii)
22 the functions that are centralized in tandem switches (as
23 distinguished from separate end-office switches), including
24 but not limited to call recording, the routing of calls to
25 operator services, and signaling conversion features.
26 Qwest shall unbundle access to call recording equipment
27 only to the extent any such recording equipment is
28 installed in a Qwest local tandem.

29 **Q. MUST QWEST PROVIDE STAND-ALONE UNBUNDLED SWITCHING**
30 **TO A CLEC TO GAIN 271 APPROVAL?**

31 A. No. Where demand for a checklist item is low, or a BOC has received no
32 requests for a checklist item, the FCC permits the BOC to submit testing
33 results to demonstrate that it is ready to furnish the checklist item on
34 demand. This insures that Qwest's 271 approval will not be held hostage

1 until such time as a CLEC were to find an application for unbundled
2 switching.

3 **Q. IS QWEST PREPARED TO OFFER UNBUNDLED SWITCHING TO**
4 **CLECS?**

5 A. Yes. Qwest has conducted a "Bench Test"⁵⁸ which demonstrates that
6 Qwest can, upon CLEC request, provision and maintain unbundled
7 transport and switching in a timely and nondiscriminatory manner.

8 **Q. PLEASE EXPLAIN THE METHODOLOGY USED IN THE BENCH TEST.**

9 A. Following is a general description of the study. A complete description of
10 the 1999 "Bench Test" study methodology and the results of the test are
11 contained in Exhibit KAS-17.

12 **Q. WHAT QWEST PROCESSES DID THE BENCH TEST INCLUDE?**

13 A. The Bench Test tested the provision of unbundled switching orders in
14 Arizona and Nebraska. The Bench Test also tested the transmission of a
15 "test call" over the unbundled elements that were provisioned. For
16 Arizona, the unbundled analog line port orders were provisioned in the
17 Phoenix North East #5ESS switch.

18 The 1999 Bench Test of Unbundled Elements tested the provision of:

⁵⁸ The Bench Test included operator services and directory assistance completion and branding.

- 1 • Unbundled Dedicated Interoffice Transport (UDIT)
- 2 • Shared Transport
- 3 • Unbundled Switching Message Trunk Port & Message Trunk
- 4 Group and Members.
- 5 • Unbundled Analog Line Port
- 6 • Custom Routing
- 7 • Unbundled Customer Controlled Reconfiguration Element
- 8 (UCCRE)⁵⁹

9 The Bench Test tested (1) the provision of unbundled switching, transport
10 and UCCRE orders in Arizona as well as (2) the repair and maintenance
11 of these elements. In the Bench Test, **actual orders were placed and**
12 **completed** for each unbundled element tested. These orders followed
13 the order provisioning processes outlined in the provisioning flow
14 diagrams contained in the exhibits to my testimony. An LSR and ASR
15 were written and sent to the Service Delivery Coordinator and orders were
16 then sent all the way through the provisioning process, using all of the
17 appropriate Operational Support Systems (OSS). In Arizona, the physical
18 connection was completed and for both states the billing was established.
19 Thus, the entire process, from delivery of an ASR/LSR to billing the
20 customer was tested.

21 The Bench Test also included the transmission of “test calls” over the
22 unbundled elements that were provisioned. The test calls generated local
23 minutes of use which were captured by AMA equipment, allowing a
24 summary bill to be created. After provisioning was completed, trouble

⁵⁹ The Unbundled Customer Controlled Reconfiguration Element (UCCRE) gives a CLEC the ability to connect elements together into a network and reconfigure the network on a near-real-time basis. The software system used with the Customer Controller enables the CLEC to reconfigure groups of channels using a single command.

1 reports were processed to test and validate Qwest processes and
2 procedures for the repair/maintenance of these services.

3 In the Phoenix, Arizona North East #5ESS switch test, unbundled analog
4 line ports were provisioned and services were physically installed and
5 tested, following the exact process that would be followed when service is
6 installed for a CLEC customer. The unbundled analog line ports required
7 the establishment and deployment of a unique measured Line Class Code
8 (LCC) with Shared Transport, blockage of 900 calls and Custom Routing
9 to a dedicated trunk group for OS/DA traffic. A dedicated combined
10 OS/DA trunk group with branding was established between the Phoenix
11 North East #5ESS switch and the Toll Operator Switch (TOPS) in the
12 Phoenix Main central office. The unbundled analog line port was
13 terminated on a designated Interconnection Distribution Frame (ICDF).

14 UDIT orders were provisioned and physically installed between the
15 Phoenix, Arizona North East central office and the Phoenix, Arizona Main
16 central office. The UDIT was terminated on a designated Interconnection
17 Distribution Frame (ICDF). Orders were also provisioned and installed to
18 test Unbundled Customer Control Reconfiguration Element (UCCRE).

19 To make the actual test call, the unbundled analog line ports were wired
20 to a telephone within the central office, rather than an unbundled loop.
21 Calls involving both local originating and terminating and OS/DA traffic
22 were successfully completed.

23 **Q. WHAT ISSUES WERE IDENTIFIED AS A RESULT OF QWEST'S**
24 **BENCH TEST?**

25 A. The 1999 Bench Test did identify provisioning issues that needed to be
26 addressed. For example, in some cases, the initial test order "dropped

1 out” due to an input error or a missing entry in a table.⁶⁰ As these errors
2 were identified, the provisioning systems were corrected. ***In all cases,***
3 ***after the error on the initial order was corrected, the initial and all***
4 ***subsequent orders were successfully processed through the Qwest***
5 ***systems.*** For example, as noted in the study documentation in Exhibit
6 KAS-17 (see section 5.04.8) the initial Analog Line Port order erred out
7 because the SOAC USOC table field did not have the proper code for a
8 DMS-100 switch. The SOAC tables for all DMS-100 switches were
9 updated to include the proper code, and the order was resent through the
10 system and processed successfully. It is important to understand that in
11 the Bench Test, errors were corrected in a manner that would prevent the
12 same error happening in subsequent orders.

13 **Q. DID ISSUES FOUND AS A RESULT OF THE BENCH TEST IMPACT**
14 **DELIVERY TIME FRAMES?**

15 A. No. The problems uncovered in the Bench Test were not significant in
16 nature, and did not jeopardize any of the critical dates. In each case,
17 despite the correction of problems, all critical interval dates were met, and
18 the service was delivered on the due date. Thus, in each instance, Qwest
19 was able to provision each item on time. Please refer to Exhibit KAS-17
20 for a description of the test steps for each unbundled element, the errors
21 encountered, and the corrective steps taken.

22 **Q. PLEASE SUMMARIZE THE BENCH TEST RESULTS.**

23 A. In summary, the Bench Test clearly demonstrates that the processes are
24 in place for Qwest to successfully provision CLEC orders for unbundled
25 transport and switching in a timely, accurate and non-discriminatory

⁶⁰ This is not an uncommon occurrence when testing the provision of a new service using new processes.

1 manner. The Bench Test demonstrates that Qwest is able to install,
2 repair/maintain and bill these elements. For each unbundled element, the
3 provisioning processes worked successfully—from the pre-order
4 transactions, through the submission of an ASR/LSR, the order handling
5 steps and the physical installation of the element, and concluding with the
6 rendering of a bill. In addition, the testing of the repair and maintenance
7 processes and procedures successfully demonstrated Qwest's capability
8 to perform this function for these elements. The Bench Test proves that
9 Qwest can provision and install, within standard installation intervals,
10 unbundled transport and switching when requested by a CLEC.

11 **Q. EXPLAIN QWEST'S PROVISIONING PROCESS FOR UNBUNDLED**
12 **SWITCHING IN WASHINGTON.**

13 A. Qwest will provision unbundled switching in Washington utilizing a defined
14 order and provisioning flow. Exhibit KAS-18 contains a flowchart that
15 delineates the tasks performed by Qwest personnel in order to provide
16 unbundled switching. This exhibit also includes a matrix that describes
17 each of the work tasks identified in the flow chart. Qwest followed this
18 same provisioning flow in the Bench Test mentioned above. Qwest will
19 follow these steps if it receives an order for stand-alone unbundled
20 switching in Washington.

21 **Q. WHAT ARE QWEST'S RESPONSIBILITIES FOR UNBUNDLED**
22 **SWITCHING MAINTENANCE?**

23 A. Qwest will maintain unbundled switching in Washington utilizing a defined
24 process flow. Exhibit KAS-19 contains a flowchart that delineates the
25 tasks performed by Qwest personnel in order to provide CLECs
26 maintenance for their unbundled switching. This exhibit also includes a
27 matrix that describes each of the work tasks identified in the flow chart.

1 Qwest followed this same repair/maintenance flow in the Bench Test
2 mentioned above. Qwest will follow these steps if it receives a repair call
3 for stand-alone unbundled switching in Washington.

4 **Q. HAVE PERFORMANCE MEASUREMENTS BEEN ESTABLISHED FOR**
5 **UNBUNDLED SWITCHING?**

6 A. No. Given the limited demand for stand-alone unbundled local switching,
7 the ROC has not identified specific performance measurements for stand-
8 alone unbundled switching. The ROC has determined that testing of
9 unbundled switching as part of a UNE combination is more appropriate.
10 Therefore, the ROC OSS test will specifically review Qwest's ability to
11 provide CLECs nondiscriminatory access to unbundled switching in
12 conjunction with combinations of loop and transport unbundled network
13 elements.

14 **Q. IS QWEST AWARE OF ANY WRITTEN COMPLAINTS WITH THE**
15 **COMMISSION REGARDING CHECKLIST ITEM 6?**

16 A. No.

17 **Q. PLEASE SUMMARIZE CHECKLIST ITEM 6.**

18 A. Through its SGAT, Qwest provides CLECs with access to unbundled
19 switching. Per FCC guidelines, Qwest has a concrete obligation to offer
20 EELs in the two wire centers within Density Zone One of the Seattle MSA,
21 and as a result does not offer unbundled switching as a TELRIC-priced
22 UNE in those wire centers.

23 CLECs have not requested unbundled switching from Qwest. However,
24 Qwest, through its Bench Test, has established that it can provision,
25 maintain and bill unbundled switching (in conjunction with dedicated
26 transport as well as shared transport) upon request, and in a timely

1 manner, thereby providing CLECs with a meaningful opportunity to
2 compete. Therefore, the Commission should find that Qwest satisfies
3 checklist item 6.

4 **VII. CONCLUSION**

5 **Q. PLEASE PROVIDE A CONCLUSION OF YOUR TESTIMONY.**

6 A. Qwest has satisfied the requirements of the Act for access to unbundled
7 network elements, including unbundled switching and unbundled
8 transport, checklist items 2, 5 and 6. Qwest has a concrete and specific
9 legal obligation to provide these items through both existing
10 interconnection agreements and the proposed SGAT.

11 Qwest is currently providing access to UNEs in Washington. CLECs have
12 access to unbundled switching and both dedicated and shared transport
13 in Washington through the SGAT. Although CLECs have not ordered
14 significant quantities of these offerings, they are available to them. Qwest
15 performed a Bench Test to demonstrate that it could, upon CLEC request,
16 provision, repair and bill these elements in a timely way. Qwest makes
17 additional network elements available to CLECs.

18 Qwest provides CLECs with access to all of these UNEs such that the
19 CLEC can combine them into finished telecommunications services.
20 Qwest will also provide CLECs with access to UNE combinations. Not
21 only will Qwest provide CLECs with access to elements currently
22 combined, Qwest will combine UNEs on behalf of CLECs, whether they
23 be UNEs Qwest ordinarily combines, UNEs Qwest does not ordinarily
24 combine, or combinations of Qwest UNEs with CLEC UNEs.

1 As a result, my testimony demonstrates that Qwest has satisfied the
2 requirements for the following checklist items listed in Section 271 of the
3 Telecommunications Act of 1996:

4 Checklist item 2 - access to unbundled network elements and ancillary
5 services (except OSS),

6 Checklist item 5 - local transport unbundled from switching, and

7 Checklist item 6 - local switching unbundled from transport and the local
8 loop.

9 This concludes my direct testimony.