

**BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION**

In The Matter Of

**Level 3 Communications, LLC'S Petition for
Arbitration Pursuant to Section 252(B) of the
Communications Act of 1934, as Amended by
The Telecommunications Act Of 1996, and
the Applicable State Laws for Rates, Terms,
and Conditions of Interconnection with
Qwest Corporation**

DOCKET NO. UT-063006

REPLACEMENT

DIRECT TESTIMONY

OF PHILIP LINSE

QWEST CORPORATION

(DISPUTED ISSUE NOS. 1, 2, AND QUAD LINKS)

AUGUST 18, 2006

TABLE OF CONTENTS

I.	IDENTIFICATION OF WITNESS	1
II.	PURPOSE OF TESTIMONY	2
III.	DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION	3
IV.	DISPUTED ISSUES NO. 2A and 2B: ALL TRAFFIC ON INTERCONNECTION TRUNKS	17
V.	DISPUTED ISSUE NO. 2C: TRANSIT LIMITATION	27
VI.	DISPUTED ISSUE: QUAD LINKS	31
VII.	SUMMARY/CONCLUSION	36

1 **I. IDENTIFICATION OF WITNESS**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION**
3 **WITH QWEST CORPORATION.**

4 A. My name is Philip Linse. My business address is 700 West Mineral Avenue,
5 Littleton Colorado. I am employed as Director – Technical Regulatory in the
6 Network Policy Organization. I am testifying on behalf of Qwest Corporation
7 (“Qwest”).

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

10 A. I received a Bachelors degree from the University of Northern Iowa in 1994. I
11 began my career in the telephone communications industry in 1995 when I joined
12 the engineering department of CDI Telecommunications in Missoula, Montana.
13 In 1998, I accepted a position with Pacific Bell as a Technology Planner with
14 responsibility for analyzing network capacity. In 2000, I accepted a position with
15 U S WEST as a Manager, Tactical Planning. In 2001, I was promoted to a staff
16 position in Technical Regulatory Interconnection Planning for Qwest. In this
17 position, I developed network strategies for interconnection of unbundled
18 Switching, Signaling System 7 (“SS7”) and other switching-related products. My
19 responsibilities also included the development of network strategies based on the
20 evaluation of new technologies. I was one of the network organization’s subject
21 matter experts. In 2003, I was promoted to my current position as Director of

1 Technical Regulatory in the Network organization. Since my promotion in 2003,
2 the Technical Regulatory group has been realigned and is now part of the Policy
3 organization. In addition to my oversight responsibilities of Qwest's network
4 regulatory interconnection and switching requirements for sections 251 and 252
5 of the Telecommunications Act of 1996, I also develop and direct the
6 implementation of network policies. In addition to these internal functions, I also
7 represent Qwest in industry technical standards setting groups such as the FCC's
8 Network Reliability and Interoperability Council ("NRIC") and the Network
9 Interconnection Interoperability Forum ("NIIF").

10 II. PURPOSE OF TESTIMONY

11 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

12 A. The purpose of my testimony is to detail Qwest's positions, from a technical
13 perspective, as they relate to the disputed issues that exist based on Level 3's most
14 recent proposed contract language for the interconnection agreement ("ICA")
15 between the parties. This testimony should be viewed as a complete replacement
16 for my earlier Opening Testimony. My testimony will show that the Qwest
17 position on these issues is reasonable, appropriate and more than adequately
18 provides for the interconnection needs of Level 3. Specifically, my testimony will
19 address the following issues:

- 20 • Issue 1: Costs of Interconnection
- 21 • Issue 2A & B: Combining Traffic on Interconnection Trunks

1 • Issue 2C: Transit Limitation

2 • Issue: Quad Links

3 In the portions of my testimony that follow, where the language has significant
4 differences I have provided the full text of the opposing language of both parties.

5 **III. DISPUTED ISSUE NO. 1: COSTS OF INTERCONNECTION**

6 **Issue No. 1A**

7 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1A.**

8 A. Issue 1A involves disputed language regarding points of interconnection. Level 3
9 mischaracterizes the issue as having to do with its right to interconnect at a single
10 point in the LATA and Qwest’s obligation on its side of the Point of
11 Interconnection (“POI”). However, Qwest believes that the POI is not the real
12 issue here. The real issue is whether Qwest should be required to provide
13 interconnection at points where it is not technically feasible or to provision/build
14 transport facilities to Level 3 without compensation for the provisioning/building
15 of such transport facilities. Whereas my testimony addresses Issue 1A from a
16 technical perspective, the testimony of Bill Easton will more fully address
17 compensation issues and why Level 3 is required to compensate Qwest for
18 interconnection facilities provided by Qwest.

19 **Q. WHAT LANGUAGE DOES QWEST PROPOSE?**

20 A. Qwest proposes the following language:

1 7.1.1 This Section describes the Interconnection of Qwest's network and
2 CLEC's network for the purpose of exchanging Exchange Service
3 (EAS/Local traffic), IntraLATA Toll carried solely by local exchange
4 carriers and not by an IXC (IntraLATA LEC Toll), ISP-Bound traffic, and
5 Jointly Provided Switched Access (InterLATA and IntraLATA) traffic.
6 Qwest will provide Interconnection at any Technically Feasible point
7 within its network. Interconnection, which Qwest currently names "Local
8 Interconnection Service" (LIS), is provided for the purpose of connecting
9 End Office Switches to End Office Switches or End Office Switches to
10 local or Access Tandem Switches for the exchange of Exchange Service
11 (EAS/Local traffic); or End Office Switches to Access Tandem Switches
12 for the exchange of IntraLATA LEC Toll or Jointly Provided Switched
13 Access traffic. Qwest Tandem Switch to CLEC Tandem Switch
14 connections will be provided where Technically Feasible. New or
15 continued Qwest local Tandem Switch to Qwest Access Tandem Switch
16 and Qwest Access Tandem Switch to Qwest Access Tandem Switch
17 connections are not required where Qwest can demonstrate that such
18 connections present a risk of Switch exhaust and that Qwest does not
19 make similar use of its network to transport the local calls of its own or
20 any Affiliate's End User Customers.

21 7.1.1.1 CLEC agrees to allow Qwest to conduct operational verification
22 audits of those network elements controlled by CLEC and to work
23 cooperatively with Qwest to conduct an operational verification audit of
24 any other provider that CLEC used to originate, route and transport VoIP
25 traffic that is delivered to Qwest, as well as to make available any
26 supporting documentation and records in order to ensure CLEC's
27 compliance with the obligations set forth in the VoIP definition and
28 elsewhere in this Agreement. Qwest shall have the right to redefine this
29 traffic as Switched Access in the event of an "operational verification
30 audit failure". An "operational verification audit failure" is defined as:
31 (a) Qwest's inability to conduct a post-provisioning operational
32 verification audit due to insufficient cooperation by CLEC or CLEC's
33 other providers, or (b) a determination by Qwest in a post-provisioning
34 operational verification audit that the CLEC or CLEC's end users are not
35 originating in a manner consistent with the obligations set forth in the
36 VoIP definition and elsewhere in this Agreement.

37 7.1.1.2 Prior to using Local Interconnection Service trunks to terminate
38 VoIP traffic, CLEC certifies that the (a) types of equipment VoIP end
39 users will use are consistent with the origination of VoIP as defined in this
40 Agreement; and (b) types of configurations that VoIP end users will use to
41 originate calls using IP technology are consistent with the VoIP
42 configuration as defined in this Agreement.

1 **Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?**

2 A. Level 3 proposes the following:

3 7.1.1 This Section describes the Interconnection of Qwest's network and
4 CLEC's network for the purpose of exchanging Telecommunications
5 Including Telephone Exchange Service And Exchange Access traffic.
6 Qwest will provide Interconnection at any Technically Feasible point
7 within its network.

8 7.1.1.1 Establishment of SPOI: Qwest agrees to provide CLEC a Single
9 Point of Interconnection (SPOI) in each Local Access Transport Area
10 (LATA) for the exchange of all telecommunications traffic. The SPOI
11 may be established at any mutually agreeable location within the LATA,
12 or, at Level 3's sole option, at any technically feasible point on Qwest's
13 network. Technically feasible points include but are not limited to
14 Qwest's end offices, access tandem, and local tandem offices.

15 7.1.1.2 Cost Responsibility. Each Party is responsible for constructing,
16 maintaining, and operating all facilities on its side of the SPOI, subject
17 only to the payment of intercarrier compensation in accordance with
18 Applicable Law. In accordance with FCC Rule 51.703(b), neither Party
19 may assess any charges on the other Party for the origination of any
20 telecommunications delivered to the other Party at the SPOI, except for
21 Telephone Toll Service traffic outbound from one Party to the other when
22 the other Party is acting in the capacity of a provider of Telephone Toll
23 Service, to which originating access charges properly apply.

24 7.1.1.3 Facilities included/transmission rates. Each SPOI to be established
25 under the terms of this Attachment shall be deemed to include any and all
26 facilities necessary for the exchange of traffic between Qwest's and Level
27 3's respective networks within a LATA. Each Party may use an Entrance
28 Facility (EF), Expanded Interconnect Channel Termination (EICT), or
29 Mid Span Meet Point of Interconnection (POI) and/or Direct Trunked
30 Transport (DTT) at DS1, DS3 , OC3 or higher transmission rates as, in
31 that Party's reasonable judgment, is appropriate in light of the actual and
32 anticipated volume of traffic to be exchanged. If one Party seeks to
33 establish a higher transmission rate facility than the other Party would
34 establish, the other Party shall nonetheless reasonably accommodate the
35 Party's decision to use higher transmission rate facilities.

36 7.1.1.4 Each Party Shall Charge Reciprocal Compensation for the
37 Termination of Traffic to be carried. All telecommunications of all types
38 shall be exchanged between the Parties by means of from the physical

1 facilities established at Single Point of Interconnection Per LATA onto its
2 Network Consistent With Section 51.703 of the FCC's Rules:

- 3 • 7.1.1.4.1 Qwest shall permit Level 3 to interconnect for the exchange
4 of telecommunications Traffic at any technically feasible point on Qwest's
5 network consistent with FCC and Commission Rules.

6 **Q. WHY DOES QWEST OBJECT TO LEVEL 3'S PROPOSED LANGUAGE?**

7 A. Level 3's contract language at 7.1.1.1 incorrectly defines its POI as a point that is
8 physically located on Qwest's network. In addition Level 3's proposed language
9 is inconsistent and attempts to extend Qwest's interconnection responsibility until
10 it stretches from any point on the Qwest network to points that are not even within
11 Qwest's serving territory. Level 3's proposed language would impose a
12 requirement on Qwest to accept traffic where there are technical limitations and
13 requires higher transmission rates than may be necessary or justified. Qwest also
14 disputes the portions of Level 3's proposed language in Issue No. 1A as they
15 apply or support other issues in dispute. The testimony of Larry Brotherson
16 addresses the portions of Issue No.1A that concern Voice over Internet Protocol
17 ("VoIP").

18 **Q. DOES QWEST'S LANGUAGE PROHIBIT SINGLE POINT OF**
19 **INTERCONNECTION?**

20 A. No. Qwest's proposed language does not prohibit Single Point of Interconnection
21 ("SPOI"); in fact it allows for SPOI under conditions that have been found
22 acceptable by other similarly situated carriers and commissions throughout
23 Qwest's 14 state territory, including Washington. As I will explain later in my

1 testimony when addressing issue 1B, Level 3 has multiple methods available to it
2 to establish interconnection under Qwest's proposed language.

3 **Q. IS LEVEL 3 CORRECT TO SUGGEST THAT IT MAY ESTABLISH ITS**
4 **POI "ON" QWEST'S NETWORK?**

5 A. No. While a POI may be located within a Qwest central office, interconnection is
6 accomplished by means of cross-connections between components of Qwest's
7 network and components of the interconnecting CLEC's network. These cross-
8 connections are the physical demarcation point between the networks and
9 facilitate the exchange of traffic between two separate networks. Level 3's
10 language incorrectly and inappropriately suggests that it has the right to establish
11 a POI that is directly connected to Qwest's equipment. What Level 3 is
12 requesting, in actuality, is integration into Qwest's network, and not
13 interconnection with Qwest's network. It is Qwest's position that interconnection
14 is appropriately obtained by establishing a demarcation point (or POI) between
15 Qwest's network and Level 3's network.

16 **Q. WHAT IS A DEMARCATION POINT?**

17 A. A demarcation point is a point where the facilities of two networks meet. This
18 allows each network operator to maintain and control the performance of its
19 respective network without potential adverse impacts that may be created by the

1 other network operator. Such demarcation points can include such locations as a
2 main distribution frame.¹

3 **Q. ARE THERE OPTIONS AVAILABLE TO LEVEL 3 FOR**
4 **ESTABLISHING A DEMARCATION POINT/POI?**

5 A. Yes. For Level 3 to establish interconnection with Qwest, Level 3 must create its
6 POI for demarcation at a point in each LATA within Qwest's serving territory.
7 Level 3 would then choose a method of interconnection that best fits its needs.
8 The methods for establishing interconnection are explained in my testimony for
9 Issue 1B.

10 **Q. HOW IS LEVEL 3'S PROPOSED LANGUAGE INCONSISTENT?**

11 A. Level 3's language is inconsistent because it describes interconnection "within"
12 Qwest's network in section 7.1.1 and then "on" Qwest's network in sections
13 7.1.1.1, 7.1.1.4 and 7.1.1.4.1. While Qwest agrees that the word "within"
14 represents interconnection within Qwest's serving territory, the use of "on" in
15 Level 3's proposed language increases the potential for future disputes.

16 **Q. HOW MIGHT LEVEL 3'S PROPOSED LANGUAGE OBLIGATE QWEST**
17 **TO EXCHANGE TRAFFIC WHERE IT IS NOT TECHNICALLY**
18 **FEASIBLE?**

¹ FCC 96-325, First Report And Order, ¶ 210, Aug. 8th 1996.

1 A. Level 3's proposed language obligates Qwest to accept telecommunications
2 traffic of all types through Level 3's SPOI at any technically feasible point. All
3 types of telecommunications traffic includes toll traffic. Level 3 then defines the
4 technically feasible points to include Qwest's access tandems and local tandems.
5 Qwest's network currently consists of a combination of access tandems for the
6 routing of toll traffic, and local tandems for the routing of local traffic. Qwest's
7 local tandem architecture, however, does not have the capability of routing toll
8 traffic. Qwest's local tandems do not have the connections to end offices and to
9 other carriers that would allow for the appropriate routing of traffic that is not
10 local to the end offices that subtend each local tandem. To achieve that capability
11 would require a substantial modification of Qwest's current network, which is not
12 an obligation under the Act. Level 3 proposes language which would permit it to
13 insist on interconnecting at points where it is not technically feasible.

14 **Q. IS IT APPROPRIATE TO REQUIRE HIGHER TRANSMISSION RATES**
15 **WHEN TRAFFIC VOLUME DOES NOT JUSTIFY IT?**

16 A. No. Level 3's language proposes that each party provide higher transmission rates
17 upon the request of the other party. This would force the placement or the
18 augmentation of facilities to Qwest's existing network. Again, this is a
19 redefinition of Qwest's obligation and a modification of its existing architectures
20 and network capabilities. The argument for adequate facilities to deliver higher
21 transmission rates as proposed by Level 3 would promote inefficient use of the

1 network. It is inappropriate and unreasonable to expect the upgrading of facilities
2 or the adding of unnecessary capacity to the network when the network demand
3 for such capacity does not exist.

4 **Q. WHAT PORTIONS OF ISSUE NO. 1A ARE ADDRESSED ELSEWHERE**
5 **IN THIS ARBITRATION?**

6 A. Level 3's language at 7.1.1.1, 7.1.1.2 and 7.1.1.4.1 suggests that Level 3 be
7 allowed to route switched access traffic over local interconnection trunks. This
8 language implicates Issue No. 2 and is discussed there.

9 **Issue No. 1B**

10 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1B.**

11 A. Issue 1B involves disputed language concerning establishment of a point of
12 interconnection.

13 **Q. WHAT LANGUAGE DOES QWEST PROPOSE?**

14 A. Qwest proposes the following which is found in the interconnection agreement
15 ("ICA") filed by Qwest with its Response to Level 3's Petition:

- 16
- 7.1.2 Methods of Interconnection
 - The Parties will negotiate the facilities arrangement used to interconnect
17 their respective networks. CLEC shall establish at least one (1) physical
18 Point of Interconnection in Qwest territory in each LATA CLEC has local
19 End User Customers. The Parties shall establish, through negotiations, at
20 least one (1) of the following Interconnection arrangements, at any
21 Technically Feasible point: (1) a DS1 or DS3 Qwest-provided facility; (2)
22 Collocation; (3) negotiated Mid-Span Meet POI facilities; or (4) other
23

1 Technically Feasible methods of Interconnection via the Bona Fide
2 Request (BFR) process unless a particular arrangement has been
3 previously provided to a third party, or is offered by Qwest as a product.

4 **Q. WHAT LANGUAGE DOES LEVEL 3 PROPOSE?**

5 A. Level 3 proposes the following:

6 • 7.1.2 Methods of Interconnection

7 7.1.2 Qwest shall permit CLEC to establish a POI through: (1) a
8 collocation site established by CLEC at a Qwest wire center, (2) a
9 collocation site established by a third party at Qwest wire center, or (3)
10 transport (and entrance facilities where applicable).

11
12 CLEC shall establish one POI at any technically feasible point on Qwest's
13 network within each LATA in which CLEC desires to exchange traffic
14 directly with Qwest by any of the following methods:

- 15 1. a collocation site established by CLEC at a Qwest Wire
16 Center,
17 2. a collocation site established by a third party at Qwest Wire
18 Center;
19 3. transport (and entrance facilities where applicable) ordered
20 and purchased by CLEC from Qwest; or
21 4. Fiber meet points.

22 CLEC shall establish one POI on Qwest's network in each LATA. POIs
23 may be established by CLEC through:

- 24 1. a collocation site established by CLEC at a Qwest Wire
25 Center,
26 2. a collocation site established by a third party at Qwest Wire
27 Center;
28 3. transport (and entrance facilities where applicable) ordered
29 and purchased by CLEC from Qwest at the applicable Qwest
30 intrastate access rates and charges; or
31 4. Fiber meet points.

1 **Q. WHAT FACILITY ARRANGEMENTS DOES QWEST PROVIDE FOR**
2 **INTERCONNECTION WITH LEVEL 3?**

3 A. There are four facility arrangements or methods of establishing interconnection
4 with Qwest: (1) DS1 or DS3 Qwest provided entrance facility; (2) Collocation;
5 (3) negotiated Mid-Span Meet POI facilities; and (4) other Technically Feasible
6 methods of Interconnection. Level 3 may use any or all of these options to
7 establish interconnection with Qwest.

8 The “DS1 or DS3 Qwest provided facility” is an option for establishing
9 interconnection where Qwest provisions or builds a physical transmission path to
10 the Level 3 POI. The transmission path is typically made up of fiber or copper
11 conductors provisioned either at the DS1 level of transmission or at a DS3 level of
12 transmission. DS1s and DS3s are merely different bandwidths or capacities of
13 transport facilities that Qwest provisions or builds to Level 3’s POI. The Qwest
14 provided facility described here is also known as an entrance facility.

15 Collocation is an option by which Level 3 may extend its facilities into a Qwest
16 central office and terminate them to collocate within that central office to
17 establish a POI. Qwest would then provision or build interconnection facilities to
18 the Level 3 Collocation. This Collocation may also be a third party Collocation.

19 “Negotiated Mid-Span Meet POI facilities” is an option where Level 3 extends its
20 own facilities to a negotiated point approximately half way between the Level 3

1 premises and Qwest's central office building. This facility arrangement is used
2 when Level 3 chooses not to have Qwest build entrance facilities to Level 3's
3 premises or chooses not to build its own facilities to a collocation space within
4 Qwest's central office. With this arrangement, Level 3 builds its portion of the
5 transport facilities while Qwest builds its portion of its transport facilities to an
6 agreeable location for interconnection at the midpoint between Level 3's premises
7 and Qwest's central office. This allows Level 3 and Qwest to equally share in
8 the cost of building the transport required for Level 3 to interconnect with Qwest.

9 "Other Technically Feasible methods of Interconnection" is an option when there
10 is an alternate method of interconnection. This is done through a Bona Fide
11 Request ("BFR"). The BFR enables Qwest to validate the technical feasibility of
12 the alternate method to facilitate interconnection. Interconnection is not the only
13 use of the BFR. A BFR can be used for other requests such as those associated
14 with access to Unbundled Network Elements that may not be currently available.

15 **Q. PLEASE SUMMARIZE WHAT THESE OPTIONS PROVIDE?**

16 A. These options provide Level 3 the flexibility to have Qwest build facilities to
17 Level 3, or have Level 3 build to Qwest's wire center (Collocation), or meet
18 somewhere in the middle. Qwest also provides the flexibility to use an alternate
19 technical feasible method not covered by the previous three options.

1 **Q. ARE THERE ANY OTHER FACILITIES THAT MAY BE REQUIRED**
2 **FOR INTERCONNECTION?**

3 A. On occasion, yes. For example, if Level 3 has established its POI in a particular
4 Qwest wire center and then wishes to interconnect with switches located in other
5 Qwest wire centers, then Direct Trunked Transport could be supplied by Qwest to
6 connect Level 3's POI to these other Qwest switches.

7 **Q. WHAT IS LIS?**

8 A. LIS is a bundled trunk-side service that provides switching and transport for the
9 mutual exchange of traffic that originates and terminates within a Qwest Local
10 Calling Area (LCA) or an Extended Area Service (EAS) exchange. LIS provides
11 the logical connections that are necessary for the exchange of traffic and are
12 established over the physical facility arrangement that is chosen by Level 3 to
13 connect Level 3's POI with Qwest's network.

14 **Q. HOW IS LIS PROVISIONED TO INTERCONNECT LEVEL 3 AND**
15 **QWEST?**

16 A. LIS is provisioned by using transport facilities and logical trunk connections that
17 are programmed into Qwest's switches. Switches are also equipped with
18 interfaces so that they may be connected to one another with transport facilities.
19 The facility options my testimony describes above are the transport options Level
20 3 may use to connect its switches with Qwest's switches. Logical trunk

1 connections then must be created to allow calls to be routed onto and off of these
2 transport facilities. This allows for telecommunications traffic to flow between
3 the switches. Both Qwest and Level 3 must coordinate the creation of these
4 trunks during the provisioning of LIS. Each trunk that is created between
5 switches allows a voice conversation to take place between the switches. Each
6 switch must have a trunk connection for a call to route to the other switch. Based
7 on the coordinated provisioning of LIS, each switch is programmed to know
8 which trunk to route the call across by using the subscriber's dialed digits as
9 directions. The switch would then route the call to the predetermined trunk that
10 connects the two switches for completion of the call.

11 **Q. WHAT TRUNKING OPTIONS ARE THERE FOR LIS?**

12 A. There are essentially four local trunking options available to Level 3: (1) LIS to
13 Qwest's End Office; (2) LIS to Qwest's local tandem; (3) LIS to Qwest's access
14 tandem; and (4) Single Point of Presence ("SPOP").

15 LIS to Qwest's End Office allows for Level 3 to send and receive its end users'
16 local traffic to and from each end office that Level 3 has established LIS.

17 LIS to Qwest's local tandem allows for Level 3 to send and receive its end users'
18 local traffic to and from a local tandem for delivery of its traffic to and from all
19 end offices that subtend that local tandem. This traffic may also consist of transit
20 traffic that Level 3 originates to a third local carrier.

1 LIS to Qwest's access tandem allows for Level 3 to send and receive its end
2 users' traffic to and from IXCs that are connected to that access tandem. This
3 traffic may also consist of IntraLATA transit traffic that Level 3 originates to a
4 third local carrier. In addition, Level 3 may send intraLATA toll that its end users
5 originate.

6 SPOP allows for Level 3 to send and receive its end users' local traffic to and
7 from all end offices that subtend Qwest's access tandem. SPOP also allows for
8 Level 3 to send and receive its end users' traffic to and from IXCs that are
9 connected to that access tandem. In addition, Level 3 may send intraLATA toll
10 that its end users originate. This traffic may also include both IntraLATA and
11 local transit traffic that Level 3 originates to a third local carrier.

12 **Q. WHAT ARE THE BENEFITS OF SPOP?**

13 A. Where volumes of local traffic are low, Level 3 only has to establish trunks to the
14 access tandem. This avoids trunking between Level 3's POI and each Qwest end
15 office and local tandem.

16 **Q. ARE THERE LIMITATIONS TO SPOP?**

17 A. Yes. Not all local carriers, Interexchange Carriers ("IXCs") or Qwest end offices
18 have or will have trunking with each Qwest access tandem. Therefore, separate
19 trunking to each access tandem may be required to the extent there is more than
20 one access tandem in a LATA. Although additional trunking may be required

1 within a LATA, it will not require Level 3 to maintain more than a single POI per
2 LATA.

3 **Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?**

4 A. Qwest language more appropriately reflects the methods of interconnection
5 between Qwest's network and CLEC networks like Level 3's network. Unlike
6 Level 3's language, Qwest's language does not confuse what is required to create
7 a POI with what is realistically required to interconnect two networks.

8 **IV. DISPUTED ISSUES NO. 2A and 2B:**

9 **ALL TRAFFIC ON INTERCONNECTION TRUNKS**

10
11 **Q. PLEASE EXPLAIN DISPUTED ISSUES NO. 2A AND 2 B.**

12 A. Issues 2A and 2 B concern the types of traffic that may be combined over LIS
13 trunks and whether Qwest is entitled to compensation for the interconnection
14 trunks it provides to Level 3. The testimony of Mr. Easton addresses the
15 compensation issue while my testimony addresses the network and technical
16 issues.

17 **Q. WHAT LANGUAGE IS QWEST PROPOSING?**

18 A. Qwest is proposing the following language:

- 19 • 7.2.2.9.3.1 Exchange Service (EAS/Local), ISP-Bound Traffic,
20 IntraLATA LEC Toll , VoIP traffic and Jointly Provided Switched Access
21 (InterLATA and IntraLATA Toll involving a third party IXC) may be

1 combined in a single LIS trunk group or transmitted on separate LIS trunk
2 groups.

3 • 7.2.2.9.3.1.1 If CLEC utilizes trunking arrangements as described in
4 Section 7.2.2.9.3.1, Exchange Service (EAS/Local) traffic shall not be
5 combined with Switched Access, not including Jointly Provided Switched
6 Access, on the same trunk group, i.e. Exchange Service (EAS/Local)
7 traffic may not be combined with Switched Access Feature Group D
8 traffic to a Qwest Access Tandem Switch and/or End Office Switch.

9 7.2.2.9.3.2 CLEC may combine originating Exchange Service
10 (EAS/Local) traffic, ISP-Bound Traffic, IntraLATA LEC Toll, VoIP
11 Traffic and Switched Access Feature Group D traffic including Jointly
12 Provided Switched Access traffic, on the same Feature Group D trunk
13 group.

14

15 • 7.2.2.9.3.2.1 CLEC shall provide to Qwest, each quarter, Percent Local
16 Use (PLU) factor(s) that can be verified with individual call detail records
17 or the Parties may use call records or mechanized jurisdictionalization
18 using Calling Party Number (CPN) information in lieu of PLU, if CPN is
19 available. Where CLEC utilizes an affiliate's Interexchange Carrier (IXC)
20 Feature Group D trunks to deliver Exchange Service (EAS/Local) traffic
21 with interexchange Switched Access traffic to Qwest, Qwest shall
22 establish trunk group(s) to deliver Exchange Service (EAS/Local), Transit,
23 and IntraLATA LEC Toll to CLEC. Qwest will use or establish a POI for
24 such trunk group in accordance with Section 7.1.

25 **Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?**

26 A. Level 3 proposes the following language:

27 7.2.2.9.3.1 Where CLEC exchanges Telephone Exchange Service,
28 Exchange Access Service, Telephone Toll Service, and ISP-bound Traffic
29 and VoIP Traffic with Qwest over an LIS interconnection network, CLEC
30 agrees to pay Qwest, on Qwest's side of the POI, state or federally tariffed
31 rates applicable to the facilities charges for InterLATA and/or IntraLATA
32 traffic in proportion to the total amount of traffic exchanged over such
33 interconnection facility. Otherwise each party remains 100% responsible
34 for the costs of its interconnection facilities on its side of the POI.

35 Except as expressly provided in Section 7.3.1.1.3 Each party shall bear all
36 costs of interconnection on its side of the network in accordance with 47

1 C.F.R. § 51.703. Accordingly, unless otherwise expressly authorized
2 according to Section 7.3.1.1.3, neither Party may charge the other (and
3 neither Party shall have an obligation to pay) any recurring and/or
4 nonrecurring fees, charges or the like (including, without limitation, any
5 transport charges), associated with the exchange of any
6 telecommunications traffic including but not limited to Traffic, ISP-bound
7 and VoIP Traffic on its side of the POI.

- 8 • Section 7.3.9 of this Agreement applies for allocating compensation for
9 differently rated traffic exchanged over an LIS interconnection network.

10 **Q. WHAT CONCERNS DOES QWEST HAVE WITH LEVEL 3'S**

11 **PROPOSED LANGUAGE?**

12 A. Level 3 is proposing to route switched access traffic over LIS trunks. This creates
13 several technical problems that that have various impacts to Qwest, CLECs, and
14 independent companies. In addition to the various impacts to Qwest, CLECs and
15 independent companies will be negatively impacted by Level 3's proposed
16 language because it will generate phantom traffic and prevent Qwest from
17 providing access records to Qwest's Qwest Platform Plus wholesale switching
18 customers. Ultimately, Level 3's proposed language sacrifices Qwest's ability to
19 create billing records so that Level 3 may obtain sole control over the information
20 that is used for billing Level 3.

21 Level 3's proposed language creates technical difficulties that would otherwise be
22 avoided by using the access service trunks which all other interexchange service
23 providers establish with Qwest. Qwest's language allows Level 3 to route both its
24 local and its switched access traffic over FGD. The routing of Level 3's local and
25 switched access traffic over FGD trunking provides Level 3 with the same

1 efficiencies that it would obtain if it were allowed to route traffic over local
2 interconnection trunking. In addition, routing of local and access traffic over
3 FGD allows for the appropriate recording of traffic that alleviates the concern of
4 phantom traffic. Furthermore, Qwest's proposed language is in keeping with
5 industry practice.

6 **Q. WHAT IS SWITCHED ACCESS TRAFFIC?**

7 A. Switched access traffic is InterLATA and IntraLATA traffic that routes to and
8 from IXCs. This traffic typically routes between IXCs and Local Exchange
9 Carriers ("LECs"). The switched access service that Qwest provides typically
10 utilizes Feature Group trunking. Feature Group trunking is a software feature of a
11 telecommunications switch. FGD is the most common software feature used to
12 route traffic to IXCs. This traffic is specifically routed to and from IXCs.

13 **Q. IS YOUR DESCRIPTION OF SWITCHED ACCESS CONSISTENT WITH**
14 **THE DEFINITION AGREED TO IN THE PROPOSED ICA?**

15 A. Yes.

16 **Q. WHAT SPECIFIC TECHNICAL PROBLEMS WOULD BE CREATED IF**
17 **LEVEL 3 ROUTES SWITCHED ACCESS TRAFFIC OVER LIS**
18 **TRUNKS?**

19 A. The most significant problem with routing switched access traffic over LIS trunks
20 is Qwest's inability to generate a record for billing. Specifically, Qwest's

1 recording of LIS trunks is not designed or engineered to record switched access
2 traffic for the purposes of billing switched access charges.

3 **Q. WHAT METHODS DOES QWEST USE TO RECORD TRAFFIC?**

4 A. There are two methods that Qwest uses to record traffic for intercarrier
5 compensation. The first is through a switch-based recording and the second is
6 through a link monitoring recording based on SS7 signaling. The switch-based
7 recording uses memory in the switch to record and format the information that is
8 received by the switch. The SS7 based recording tool records traffic using
9 information provided in the SS7 signaling stream.

10 **Q. HOW ARE THESE TWO METHODS OF RECORDING TRAFFIC USED**
11 **FOR INTERCARRIER COMPENSATION?**

12 A. Switch-based recordings are used for Access Service billing of IXC's and billing
13 of Wireless carriers. The use of these recordings is based on the Access Service
14 that is requested by an IXC or Interconnection Service that is requested by a
15 Wireless carrier. As I explained above, IXC's obtain connections to Qwest's
16 network using access services such as FGD. Wireless Service providers typically
17 request interconnection using Type 2 interconnection trunking.

18 CroSS7 recordings on the other hand are used for solely for billing CLECs and
19 some independent companies for local traffic. The CroSS7 recording capability
20 has been set up associated with LIS trunks so that local traffic may be recorded.

1 **Q. WHY ARE SWITCH-BASED RECORDINGS NOT CREATED ON**
2 **LOCAL CALLS?**

3 A. Prior to 1996 and the Telecom Act there was no need to record local traffic for the
4 purposes of intercarrier compensation. Before the 1996 Act local service was
5 provided exclusively by Incumbent Local Exchange Carriers (“ILEC”) and was
6 typically provided at a flat rate. Thus there was no need to record local traffic.
7 However, after the 1996 Act and the introduction of CLECs, reciprocal
8 compensation for local traffic became an issue. As a result, CroSS7 was
9 developed to record traffic that was exchanged between Qwest and CLECs over
10 LIS trunks.

11 **Q. DOES CROSS7 RECORD SWITCHED ACCESS FOR BILLING**
12 **PURPOSES?**

13 A. No. There was no need to enable CroSS7 to record switched access traffic for
14 billing purposes or to incur the expense of creating billing records for additional
15 services. This is because access service recording was done by a switch based
16 recording associated with access service trunking. CroSS7 was developed solely
17 to record local traffic that was exchanged with CLECs for billing purposes.

18 **Q. IF LEVEL 3 WERE TO ROUTE SWITCHED ACCESS TRAFFIC OVER**
19 **LIS TRUNKS, WOULD QWEST HAVE THE ABILITY TO CREATE A**
20 **SWITCHED ACCESS RECORD?**

1 A. No. Because CroSS7 was not engineered for the purposes of recording switched
2 access traffic for billing, Qwest does not have the ability to create a switched
3 access billing record.

4 **Q. WHAT ADDITIONAL PROBLEMS WOULD OCCUR IF LEVEL 3 WERE**
5 **ALLOWED TO ROUTE SWITCHED ACCESS TRAFFIC OVER LIS**
6 **TRUNKS?**

7 A. If Level 3 were to route switched access traffic over its local LIS with Qwest,
8 other carriers such as independent companies and other CLECs would view this
9 traffic as phantom traffic because they would not receive the Jointly Provided
10 Switched Access (“JPSA”) records associated with the traffic that Level 3 would
11 be routing over LIS trunks. In other words, CLECs and independent companies
12 that terminate Level 3’s switched access traffic that is routed through Qwest over
13 LIS trunks would not have the ability to bill terminating access charges to
14 Level 3.

15 **Q. DOES THIS TECHNICAL LIMITATION ALSO IMPACT QWEST**
16 **WHOLESALE SWITCHING CUSTOMERS?**

17 A. Absolutely. In fact, the inability for Qwest to provide JPSA records to Qwest
18 wholesale switching customers is even more profound. This is because Qwest’s
19 wholesale switching customers use Qwest switches and the telephone numbers
20 associated with Qwest’s switches. Without Qwest’s ability to record and develop

1 a JPSA record, it is technically impossible for Qwest to provide its wholesale
2 switching customers with these records.

3 **Q. WILL QWEST PROVIDE LEVEL 3 THE CAPABILITY TO ROUTE**
4 **BOTH SWITCHED ACCESS TRAFFIC AND LOCAL TRAFFIC OVER A**
5 **SINGLE TRUNK GROUP?**

6 A. Yes.

7 **Q. WHAT IS QWEST OFFERING TO LEVEL 3 THAT PROVIDES LEVEL 3**
8 **THE CAPABILITY IT IS SEEKING?**

9 A. Qwest's proposed language gives Level 3 the capability it is seeking. Qwest's
10 language allows Level 3 to route both its local and toll traffic over FGD trunking.
11 As I described above, these trunks are typically used for routing switched access
12 traffic. Qwest has developed a methodology for Level 3 to route its local traffic
13 over these same trunks. Furthermore, Qwest has also developed the ability to
14 record this traffic so that local traffic and access traffic are billed appropriately.
15 AT&T has similar routing provisions in its agreement with Qwest.

16 **Q. ARE THE NETWORK EFFICIENCIES DIFFERENT IF LEVEL 3 WERE**
17 **TO ROUTE SWITCHED ACCESS TRAFFIC AND LOCAL TRAFFIC**
18 **OVER FEATURE GROUP D VERSUS OVER LIS TRUNKS?**

19 A. No. Network efficiency is not an argument against using an established method
20 for routing Level 3's switched access traffic and local traffic over FGD trunking.

1 Once again, Level 3's argument can be distilled down to the charges it might pay
2 and not network efficiencies or technical feasibility. Level 3 does not want to pay
3 the same rates that all other IXCs pay to provision its ability to route switched
4 access traffic to Qwest.

5 **Q. LEVEL 3 HAS RECENTLY COMPLETED ITS ACQUISITION OF**
6 **WILTEL. DID LEVEL 3 ACQUIRE AN EXTENSIVE FEATURE GROUP**
7 **D NETWORK THROUGH THE PURCHASE OF WILTEL?**

8 A. Yes. WilTel's website provided insight to the network and the capabilities that
9 Level 3 has acquired.² It states, for example, that the acquisition of WilTel by
10 Level 3 allows "nationwide" origination or "worldwide" termination of switched
11 access traffic. WilTel provides "[a] nationwide Feature Group D deployment and
12 fully redundant SS7 network..."

13 **Q. CAN LEVEL 3 USE THE NETWORK ARCHITECTURE THAT IT NOW**
14 **HAS IN PLACE TO ROUTE BOTH SWITCHED ACCESS AND LOCAL**
15 **TRAFFIC TO QWEST USING FGD TRUNKS?**

16 A. Yes. Level 3 can use the existing transport capacity it has established with Qwest
17 to route both its switched access traffic and local traffic using FGD. All that
18 Level 3 needs to do is convert its LIS trunks to FGD trunks. This would not

² Exhibit PL-2, http://www.wiltel.com/products/content/voice_services/oneplus.htm

1 require changes to Level 3's switch. This conversion would not require a network
2 architecture change that would require a net increase to Level 3's network
3 capacity for the termination of traffic with Qwest. Therefore, Level 3 would
4 merely need to submit an order for Qwest to make this software change. This
5 conversion would allow Level 3 to route both switched access and local traffic
6 over FGD trunks.

7 **Q. WILL THERE BE A SIGNIFICANT AMOUNT OF ACCESS TRAFFIC**
8 **THAT WILL ROUTE TO QWEST FROM LEVEL 3?**

9 A. Yes. As a result of the WilTel acquisition, and Level 3's characterization of it, the
10 volume of switched access traffic delivered by Level 3 to Qwest will be
11 substantial. Level 3 will be among the top five users of Qwest's switched access
12 services. The amount of switched access traffic delivered by Level 3 to Qwest
13 dwarfs the amount of non-switched access traffic that is currently sent from Level
14 3 to Qwest.

15 **Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?**

16 A. Qwest's language more appropriately provides Level 3 with the capability to
17 combine traffic on a single trunk group. At the same time, Qwest's language
18 provides for routing and recording of switched access and local traffic that is
19 consistent with the way other IXCs and CLECs route traffic. It is consistent with
20 industry practice and does not require a "one-off" solution developed solely for
21 Level 3.

1 **V. DISPUTED ISSUE NO. 2C: TRANSIT LIMITATION**

2 **Q. PLEASE EXPLAIN THE TRANSIT LIMITATION ISSUE.**

3 A. Disputed issue 2C concerns Level 3's routing of switched access traffic over LIS
4 trunks. Specifically, Level 3 is proposing to route switched access to other LECs
5 over FGD trunks while at the same time refusing to route similar traffic to Qwest
6 over these same types of FGD trunks.

7 **Q. WHAT LANGUAGE IS QWEST PROPOSING?**

8 A. Qwest proposes the following language:

- 9 • 7.2.2.9.3.2 CLEC may combine originating Exchange Service
10 (EAS/Local) traffic, ISP-Bound Traffic, IntraLATA LEC Toll, VoIP
11 Traffic and Switched Access Feature Group D traffic including Jointly
12 Provided Switched Access traffic, on the same Feature Group D trunk
13 group.

14 **Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?**

15 A. Level 3 proposes the following language:

- 16 • 7.2.2.3.5 Transit Limitation: For Telephone Toll and IP/TDM (i.e.
17 VoIP) traffic that Level 3 terminates to Qwest, Level 3 agrees to route
18 over the local interconnection trunks only such Telephone Toll and
19 IP/TDM (i.e. VoIP) traffic that would route to NPA-NXX codes homed to
20 Qwest switches.

21 **Q. WHY IS QWEST OPPOSED TO LEVEL 3'S LANGUAGE?**

22 A. Level 3's transit limitation language requires Level 3 to maintain a separate
23 network for traffic that it will send to carriers that subtend Qwest's network. This
24 flies in the face of Level 3's own argument that it is more efficient to maintain a

1 single trunk group type to route local and switched access traffic. In addition,
2 Level 3's language is ambiguous and can be interpreted to allow Level 3 to
3 deliver to Qwest the very traffic that it claims it will not route to Qwest.

4 **Q. ARE THERE TECHNICAL LIMITATIONS THAT LEVEL 3 HAS**
5 **OVERLOOKED IN ITS PROPOSED LANGUAGE ?**

6 A. Yes. Qwest is a wholesale switching provider which allows Qwest former
7 UNE-P customers to continue purchasing wholesale switching from Qwest.
8 These customers receive records from Qwest so that the wholesale switching
9 customer may bill IXCs access charges for traffic that originates and terminates
10 from its end user customers that are served using Qwest's wholesale switching.
11 Because wholesale switching uses Qwest switches and telephone numbering
12 resources, it is impossible for level 3 to appropriately determine what telephone
13 numbers are Qwest's and what telephone numbers are CLEC's that use Qwest's
14 wholesale switching. Thus, Level 3's proposed language will prevent CLECs
15 from billing Level 3 switched access for long distance traffic.

16 **Q. HOW DOES LEVEL 3'S TRANSIT LIMITATION LANGUAGE**
17 **CONTRADICT ITS ARGUMENT FOR MAINTAINING A SINGLE**
18 **NETWORK?**

19 A. For Level 3 to comply with the language that it proposes in section 7.2.2.3.5,
20 Level 3 would be required to maintain a separate trunking network for the traffic
21 that is destined for non-Qwest NPA-NXXs. This is the same traffic that would

1 normally be delivered to Qwest's network using FGD trunks. By proposing what
2 it calls "transit limitation" language, Level 3 is expressing its willingness to
3 maintain the very network that it argues is inefficient. It also calls into question
4 Level 3's motivation to route switched access traffic over LIS trunks.

5 **Q. DOES LEVEL 3'S PROPOSED LANGUAGE PREVENT IT FROM**
6 **DELIVERING TO QWEST SWITCHED ACCESS TRAFFIC DESTINED**
7 **FOR INDEPENDENTS AND CLECS?**

8 A. No. To start with, the "transit limitation" provision would be difficult for Qwest
9 to enforce absent the recording capabilities that FGD provides. However, even if
10 Level 3 followed the provision to the letter, there would still be problems
11 associated with switched access traffic destined for independent companies and
12 CLECs. This is so because Level 3's language would allow the routing of
13 NPA-NXX codes to Qwest that "home" to Qwest's switches. However, both end
14 office switches and NPA-NXX's have homing tandem arrangements³. Thus,
15 other carriers that interconnect at the same tandem switches to which Level 3 is
16 interconnected, have their NPA-NXX homing tandem arrangement with Qwest's
17 tandem switches. Thus, Level 3's language would allow Level 3 to route to
18 Qwest the very traffic for which switched access records are necessary. As I have

³ The Telcordia® Business Integrated Routing/Rating Database System (BIRRDS) USER MANUAL – July, 2005 addresses homing tandems associated with switches and the ATIS CENTRAL OFFICE CODE (NXX) ASSIGNMENT GUIDELINES (COCAG) May, 2006 addresses homing tandems associated with numbering resources i.e. NPA-NXXs.

1 explained above, traffic routed to Qwest from Level 3 that appears to be in
2 compliance with Level 3's proposed language would create phantom traffic
3 because the other interconnected carriers would not receive jointly provided
4 switched access records associated with the traffic that Level 3 would be routing
5 over LIS trunks.

6 **Q. ARE THERE OTHER SITUATIONS WHERE LEVEL 3'S ROUTING**
7 **MAY COMPLY WITH ITS PROPOSED LANGUAGE AND STILL**
8 **RESULT IN PHANTOM TRAFFIC?**

9 A. Yes. Level 3 may route to Qwest all of Qwest NPA NXXs that have been ported
10 to an interconnected carrier. The terminating carriers that have Qwest ported
11 numbers would then receive traffic that would not be accompanied by a billable
12 record. In addition, CLECs that have purchased wholesale switching from Qwest
13 would also not receive the appropriate records to use to bill Level 3 for switched
14 access.

15 **Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?**

16 A. Qwest's language is unambiguous and more appropriately provides Level 3 with
17 the capability to combine traffic on a single trunk group. At the same time,
18 Qwest's language provides for routing and recording of switched access and local
19 traffic that is consistent with the way other IXCs and CLECs route traffic. It is
20 consistent with industry practice and does not require a "one-off" solution
21 developed solely for Level 3. The fact that Qwest's approach has been

1 acceptable to the rest of the industry for years speaks volumes on this issue. The
2 creation of phantom traffic is minimized under Qwest's language and is increased
3 under Level 3's language.

4 **VI. DISPUTED ISSUE: QUAD LINKS**

5 **Q. PLEASE EXPLAIN THE MEET POINT SIGNALING ISSUE.**

6 A. The parties previously agreed to the language for section 7.2.2.6.1 of the
7 Agreement concerning signaling. Level 3 is now proposing language that could
8 be interpreted to impose signaling obligations beyond those that Qwest is required
9 by law to provide. The agreed to section 7.2.2.6.1 allows Level 3 obtain signaling
10 from Qwest through the tariff offering that Qwest provides to other carriers.

11 **Q. WHAT LANGUAGE IS QWEST PROPOSING?**

12 A. What language did the parties agree to:

- 13 • 7.2.2.6.1 SS7 Out-of-Band Signaling. SS7 out-of-band signaling is
14 available for LIS trunks. SS7 out-of-band signaling must be requested on
15 the order for new LIS trunks. Common Channel Signaling Access
16 Capability Service may be obtained through the following options: (a) as
17 set forth in this Agreement at Section 9.6 or 9.13; (b) as defined in the
18 FCC Tariff # 1; or (c) from a third party signaling provider. Each of the
19 Parties, Qwest and CLEC, will provide for Interconnection of their
20 signaling network for the mutual exchange of signaling information in
21 accordance with the industry standards as described in Telcordia
22 documents, including but not limited to GR-905 CORE, GR-954 CORE,
23 GR-394 CORE and Qwest Technical Publication 77342.

24 **Q. WHAT NEW LANGUAGE IS LEVEL 3 PROPOSING?**

25 A. Level 3 proposes the following language:

1

2 • 7.2.2.6.1.1 Either party may choose to provide its own SS7 signaling
3 (via a single set of Quad Links) for its facility-based services, or to the
4 extent available, it may purchase SS7 signaling from the other party under
5 the terms and conditions of that party's tariff offering. Alternatively, either
6 party may choose to obtain SS7 signaling from a third-party provider.

7 • 7.2.2.6.1.2 In the event that LEVEL 3 constructs Quad Links, the point
8 at which Level 3's single set of Quad Links physically link to Qwest's
9 STP shall establish a meet point demarcating each Party's respective legal
10 and financial responsibilities for their respective network and traffic
11 exchanged between those networks.

12 • 7.2.2.6.1.3 To the extent that Qwest and Level 3 establish a mid-span
13 meet or alternative form of establishing physical linking of SS7 Quad
14 links, they will negotiate mutually agreeable terms and conditions for the
15 apportioning facilities costs.

16 **Q. DOES QWEST PROVIDE NON-DISCRIMINATORY SIGNALING**
17 **CAPABILITIES TO LEVEL 3?**

18 A. Yes. Qwest provides signaling to Level 3 in the same manner that Qwest
19 provides signaling to other carriers that request SS7 signaling functionality. In
20 the past, Qwest has provided signaling through its tariffs as well as through its
21 unbundling obligations. Upon decisions made in the Triennial Review⁴ and the

⁴ Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 16978, ¶ 545 (2003). (“We conclude that, in the last several years, the market for signaling networks has matured. The record reflects that multiple alternative providers are available to provide rival signaling services to competitive LECs.1672 Accordingly, we conclude that, as a general matter, competitive LECs are no longer impaired without access to the incumbent LECs’ signaling networks as a UNE. In performing our impairment analysis, we consider whether barriers exist for a competitive LEC to serve customers through either deploying its own signaling network or by purchasing signaling from alternative providers to the incumbent LEC. We determine that no such barriers exist. A review of our record reveals that there are numerous competitive suppliers of signaling services, such as Illuminet, TSI, Southern New England Telephone, AT&T, WorldCom and Sprint,1673 all of which are actively providing signaling services to

1 Triennial Review Remand Order,⁵ Qwest is no longer obligated to “unbundle” its
2 signaling network. However, Qwest still offers its tariffed signaling service that
3 allows any carrier or signaling provider to obtain access to Qwest’s signaling
4 network. Qwest’s signaling tariff provides signaling for both local and non-local
5 traffic that terminates to or originates from Qwest. Qwest’s tariff does not require
6 separate signaling connections for local and non-local traffic. Qwest’s signaling
7 tariff also allows for transient signaling messages so that carriers may transmit

competitive LECs on a commercial basis. For instance, Illuminet, which owns the largest signaling network in the United States that is unaffiliated with an incumbent LEC, has access to all of the LATAs of the BOCs and major independent LECs, operates 14 STP pairs, and provides signaling to competitive carriers on a national scope.¹⁶⁷⁴ Similarly, TSI provides a nationwide signaling service that offers SS7 access to and from nearly all LATAs within the United States.¹⁶⁷⁵ There are also regional SS7 options for competitive carriers. Sprint, for example, operates a regional SS7 network, which contains ten pairs of regional STPs and one national STP pair that serves Sprint customers in 18 states.¹⁶⁷⁶ ICG also offers a regional SS7 service, which is available from over thirty cities via ICG’s regional STP access hub nodes.¹⁶⁷⁷ Indeed, there is evidence in the record that many competitive LECs are using alternative providers for most or all of their signaling needs.¹⁶⁷⁸ There is also evidence of self-deployment of SS7 network capabilities by competitive carriers, such as TimeWarner Telecom and NewSouth. We find, therefore, that for competitive carriers deploying their own switches, there are no barriers to obtaining signaling or self-provisioning signaling capabilities and we do not require incumbent LECs to continue offering access to signaling as a UNE under section 251(c)(3) of the Act.”).

⁵ Order on Remand, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Dkt. Nos. WC 04-313/CC 01-338, FCC 04-290, ¶ 227, footnote 627 (February 4, 2005) (“The requesting carrier shall continue to have access to shared transport, signaling, and call-related databases as provided in the *Triennial Review Order* for those arrangements relying on unbundled local circuit switching that have not yet been converted to alternative arrangements. *Triennial Review Order*, 18 FCC Rcd at 17319-20, 17323-34, paras. 533-34, 542-60. We note that TSI’s petition for reconsideration of the *Triennial Review Order* that requests that the Commission find signaling elements to be competitively available either through third party providers or through self-provisioning and that competitive LECs do not need mandatory access to signaling was not timely filed. TSI Telecommunications Services, Inc. Petition for Reconsideration, CC Docket No. 01-338 (filed Oct. 3, 2003). In any event, even if we were to consider TSI’s petition, because we otherwise generally eliminate unbundled switching, and with it unbundled access to signaling, we dismiss that petition as moot.”).

1 signaling messages to other carriers for calls that do not terminate or originate on
2 Qwest's network. It is unclear why Level 3 has raised quad links as an issue in
3 this arbitration.

4 **Q. WHAT PROBLEMS DOES QWEST HAVE WITH LEVEL 3'S**
5 **PROPOSAL?**

6 A. Qwest has 3 specific problems with Level 3's language. First the language that
7 Level 3 has provided in section 7.2.2.6.1.1 is completely duplicative of the agreed
8 to language in section 7.2.2.6.1. Second, Level 3's proposed section 7.2.2.6.1.2
9 could be interpreted to obligate Qwest to develop a unique signaling service
10 specifically for Level 3. Third, Level 3's proposed section 7.2.2.6.1.3 could be
11 interpreted to obligate Qwest to build signaling facilities where Qwest is not
12 lawfully obligated to do so.

13 **Q. IN WHAT WAYS IS LEVEL 3'S PROPOSED SECTION 7.2.2.6.1.1**
14 **DUPLICATIVE OF THE AGREED TO SECTION 7.2.2.6.1?**

15 A. First, the agreed to Section 7.2.2.6.1 does not prohibit Level 3 from providing its
16 own signaling. Second, Qwest's subpart (b) provides that Qwest provides
17 signaling pursuant to its FCC Tariff # 1. Third, subpart (c) permits Level 3 to
18 obtain signaling from a third party. Finally, Level 3 has never been prohibited
19 from using a single quad set of signaling links. In fact, the Telcordia documents
20 identified in Qwest's language explain the requirements for interconnecting
21 signaling networks. These Telcordia documents do not require anything more

1 than a single quad set of signaling links. In addition, Qwest's technical
2 publication is consistent with Telcordia documentation in that it also does not
3 require more than a single quad set of signaling links. It is completely unclear
4 why Level 3 has taken issue with Qwest's SS7 signaling provisions of the ICA.

5 **Q. WHAT LANGUAGE IN SECTION 7.2.2.6.1.2 COULD BE INTERPRETED**
6 **TO OBLIGATE QWEST TO DEVELOP A UNIQUE SIGNALING**
7 **SERVICE SPECIFICALLY FOR LEVEL 3?**

8 A. Level 3's proposed section 7.2.2.6.1.2 implies that Qwest must provide a meet
9 point signaling capability that is not required by the FCC⁶ and is not provided
10 through Qwest's tariff.

11 **Q. WHAT LANGUAGE IN SECTIONS 7.2.2.6.1.2 AND 7.2.2.6.1.3 CAN BE**
12 **INTERPRETED TO OBLIGATE QWEST TO BUILD FACILITIES?**

13 A. Level 3's proposed sections 7.2.2.6.1.2 and 7.2.2.6.1.3 require Level 3 to establish
14 a meet point arrangement with Qwest for signaling. This type of arrangement can
15 be interpreted to require Qwest to build facilities in order to meet Level 3's
16 unlawful requirement. This type of requirement is not provided to other carriers
17 and is not a capability provided by Qwest's tariff.

18 **Q. WHY SHOULD QWEST'S LANGUAGE BE ADOPTED?**

⁶ FCC 04-290; Part 51 of Title 47 of the Code of Federal Regulations: § 51.319

1 A. Qwest's language should be accepted because it more appropriately provides
2 Level 3 with the signaling capabilities to which it is entitled without prohibiting
3 Level 3 from seeking signaling functionality from a third party or requiring Level
4 3 to establish more than a single set of quad links.

5 **VII. SUMMARY/CONCLUSION**

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

7 A. Yes it does.