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UTILITIES COMMISSION

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BEFORE THE IDAHO PUBLIC UTILITIES 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
RATE, TERMS, AND CONDITIONS OF
INTERCONNECTION WITH QWEST
CORPORATION**

CASE NO. QWE-T-05-11

**DIRECT TESTIMONY OF
PHILIP LINSE**

QWEST CORPORATION

AUGUST 12, 2005

(Disputed Issue Nos. 1, 2, 6, 8 and 20)

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I. IDENTIFICATION OF WITNESS

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

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

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

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

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 certain disputed issues between the parties. My
14 testimony will show that the Qwest position on these issues is reasonable,
15 appropriate and more than adequately provides for the interconnection needs of
16 Level 3. Specifically, my testimony will address the following issues from the
17 Matrix of Unresolved Issues filed by Level 3 in this arbitration:

- 18 • Issue 1: Costs of Interconnection
- 19 • Issue 2: Combining Traffic on Interconnection Trunks
- 20 • Issue 6: AMA and Switch Technology

- 1 • Issue 8: Definition of Call Record
- 2 • Issue 20: Signaling Parameters

3 In portions of my testimony that follow, where the disputed language is similar
4 but contain modifications to Qwest's language, I have underlined the language
5 that Level 3 wishes to delete or add.

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

7 **Issue No. 1A**

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

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

1 Q. WHAT LANGUAGE DOES QWEST PROPOSE?

2 A. Qwest proposes the following language, which is also found on page 66 of the
3 interconnection agreement ("ICA") filed by Qwest with its Supplement to Initial
4 Response to Petition for Arbitration on June 28, 2005. The ICA contains the
5 language proposed by Qwest juxtaposed against the language proposed by Level
6 3:

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

33 7.1.1.1 CLEC agrees to allow Qwest to conduct
34 operational verification audits of those network elements
35 controlled by CLEC and to work cooperatively with Qwest

1 to conduct an operational verification audit of any other
2 provider that CLEC used to originate, route and transport
3 VoIP traffic that is delivered to Qwest, as well as to make
4 available any supporting documentation and records in
5 order to ensure CLEC's compliance with the obligations set
6 forth in the VoIP definition and elsewhere in this
7 Agreement. Qwest shall have the right to redefine this
8 traffic as Switched Access in the event of an "operational
9 verification audit failure". An "operational verification
10 audit failure" is defined as: (a) Qwest's inability to conduct
11 a post-provisioning operational verification audit due to
12 insufficient cooperation by CLEC or CLEC's other
13 providers, or (b) a determination by Qwest in a post-
14 provisioning operational verification audit that the CLEC
15 or CLEC's end users are not originating in a manner
16 consistent with the obligations set forth in the VoIP
17 definition and elsewhere in this Agreement.

18 7.1.1.2 Prior to using Local Interconnection Service
19 trunks to terminate VoIP traffic, CLEC certifies that the (a)
20 types of equipment VoIP end users will use are consistent
21 with the origination of VoIP as defined in this Agreement;
22 and (b) types of configurations that VoIP end users will use
23 to originate calls using IP technology are consistent with
24 the VoIP configuration as defined in this Agreement.

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

26 A. Level 3 proposes the following:

27 7.1.1 This Section describes the Interconnection of
28 Qwest's network and CLEC's network for the purpose of
29 exchanging Telecommunications Including Telephone
30 Exchange Service And Exchange Access traffic. Qwest
31 will provide Interconnection at any Technically Feasible
32 point within its network.

33 7.1.1.1 **Establishment of SPOI:** Qwest agrees to
34 provide CLEC a Single Point of Interconnection (SPOI) in
35 each Local Access Transport Area (LATA) for the
36 exchange of all telecommunications traffic. The SPOI may
37 be established at any mutually agreeable location within the

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LATA, or, at Level 3's sole option, at any technically feasible point on Qwest's network. Technically feasible points include but are not limited to Qwest's end offices, access tandem, and local tandem offices.

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

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

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

1 **Q. DOES QWEST'S LANGUAGE PROHIBIT SINGLE POINT OF**
2 **INTERCONNECTION?**

3 A. No. Qwest's proposed language does not prohibit Single Point of Interconnection
4 ("SPOI"); in fact it allows for SPOI under conditions that have been found
5 acceptable by other similarly situated carriers and commissions throughout
6 Qwest's 14 state territory, including Idaho. As I will explain later in my
7 testimony when addressing issue 1B, Level 3 has multiple methods available to it
8 to establish interconnection to its POI under Qwest's proposed language. Qwest's
9 position is that it is entitled to compensation for the facilities Qwest provides to
10 enable Level 3's selection of a SPOI.

11 **Q. WHAT IS SINGLE POINT OF INTERCONNECTION?**

12 A. A SPOI is a physical demarcation point where Level 3 and Qwest can exchange
13 traffic originating from or destined for multiple Qwest end offices within a LATA
14 using Qwest provided transport facilities between Level 3's network and Qwest's
15 network. This allows Level 3 to serve customers that are located in different
16 Qwest exchanges without having to build its own interconnection facilities to
17 each exchange where Level 3 wishes to provide local service. As my testimony
18 will explain when addressing issue 1B, there are multiple methods of
19 interconnection that would allow Level 3 to establish these transport facilities
20 between Qwest and Level 3's SPOI.

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

3 A. No. While a POI may be located within a Qwest office, interconnection is
4 accomplished by means of cross-connections between components of Qwest's
5 network and components of the interconnecting CLEC's network. These cross-
6 connections are the physical demarcation point between the networks and
7 facilitate the exchange of traffic between two separate networks. Level 3's
8 language incorrectly and inappropriately suggests that it has the right to establish
9 a POI that is directly connected to Qwest's equipment. What Level 3 is
10 requesting, in actuality, is integration into Qwest's network, and not
11 interconnection with Qwest's network. Level 3's proposal prevents Qwest from
12 retaining sole responsibility for the management, control, and performance of its
13 own network and is contrary to the intent of the Act¹. It is Qwest's position that
14 interconnection is appropriately obtained by establishing a demarcation point (or
15 POI) between 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 FCC 96-325, First Report And Order, ¶ 203 Aug. 8th 1996.

1 other network operator. Such demarcation points can include such locations as a
2 main distribution frame.² The demarcation point between Qwest and CLECs
3 including Level 3 is its POI. Without a demarcation point where the two
4 networks can meet, neither Qwest nor Level 3 may be assured the ability to
5 maintain or control the performance of its network.

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

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

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

14 A. Level 3's language is inconsistent because it describes interconnection "within"
15 Qwest's network in section 7.1.1 and then "on" Qwest's network in section
16 7.1.1.4 and 7.1.1.4.1. While Qwest agrees that the word "within" represents
17 interconnection within Qwest's serving territory, the use of "on" in Level 3's
18 proposed language increases the potential for future disputes.

² FCC 96-325, First Report And Order, ¶ 210, Aug. 8th 1996.

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

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

17 **Q. WOULD THE ESTABLISHMENT OF A SINGLE POI IN A LATA**
18 **REQUIRE LEVEL 3'S USE OF QWEST'S NETWORK?**

19 A. Yes. To facilitate the connection between Level 3's network and Qwest's
20 network Level 3 must establish a POI for its network. Then transport facilities
21 would be typically provisioned or built by Qwest to Level 3's POI to connect the

1 two networks. This transport is typically used for the sole purpose of Level 3's
2 interconnection with Qwest. Level 3's decision to interconnect with Qwest is a
3 decision made solely by Level 3.

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

6 A. No. Level 3's language proposes that each party provide higher transmission rates
7 upon the request of the other party. This would force the placement or the
8 augmentation of facilities to Qwest's existing network. Again, this is a
9 redefinition of Qwest's obligation and a modification of its existing architectures
10 and network capabilities. The argument for adequate facilities to deliver higher
11 transmission rates as proposed by Level 3 would promote inefficient use of the
12 network. It is inappropriate and unreasonable to expect the upgrading of facilities
13 or the adding of unnecessary capacity to the network when the network demand
14 for such capacity is possibly not justified.

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

17 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
18 allowed to route switched access traffic over interconnection trunks. This
19 language implicates Issue No. 2 and as described in my testimony for Issue No. 2,
20 Qwest objects to Level 3's language.

1 **Issue No. 1B**

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

3 A. Issue 1B, on page 68 of the ICA, involves disputed language in which Level 3
4 incorrectly proposes methods of establishing its POI that are actually methods of
5 interconnection.

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

7 A. Qwest proposes the following:

8 7.1.2 Methods of Interconnection

9 The Parties will negotiate the facilities arrangement used to
10 interconnect their respective networks. CLEC shall
11 establish at least one (1) physical Point of Interconnection
12 in Qwest territory in each LATA CLEC has local
13 Customers. The Parties shall establish, through
14 negotiations, at least one (1) of the following
15 Interconnection arrangements, at any Technically Feasible
16 point: (1) a DS1 or DS3 Qwest provided facility; (2)
17 Collocation; (3) negotiated Mid-Span Meet POI facilities;
18 or (4) other Technically Feasible methods of
19 Interconnection, such as an OCn Qwest provided facility,
20 via the Bona Fide Request (BFR) process unless a
21 particular arrangement has been previously provided to a
22 third party, or is offered by Qwest as a product. OCn
23 Qwest provided facilities may be ordered through FCC
24 Tariff No. 1.

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

26 A. Level 3 proposes the following:

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7.1.2 Methods of Interconnection

CLEC may establish a POI through: (1) a collocation site established by CLEC at a Qwest wire center, (2) a collocation site established by a third party at Qwest wire center, or (3) transport (and entrance facilities where applicable).

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

1. a collocation site established by CLEC at a Qwest Wire Center,
2. a collocation site established by a third party at Qwest Wire Center, or;
3. transport (and entrance facilities where applicable) ordered and purchased by CLEC from Qwest; or,
4. Fiber meet point.

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

1. a collocation site established by CLEC at a Qwest Wire Center,
2. a collocation site established by a third party at Qwest Wire Center,
3. transport (and entrance facilities where applicable) ordered and purchased by CLEC from Qwest at the applicable Qwest intrastate access rates and charges; or,
4. Fiber meet point.

1 **Q. WHAT CONCERNS DOES QWEST HAVE WITH LEVEL 3'S**
2 **LANGUAGE?**

3 A. Level 3's proposed language confuses the methods of obtaining interconnection
4 with establishment of its POI "within" Qwest's network. Level 3's language sets
5 a requirement to interconnect "on" Qwest's network and then lists facility
6 arrangements or methods used to interconnect with Qwest.

7 **Q. WHAT IS THE DIFFERENCE BETWEEN A POINT OF**
8 **INTERCONNECTION AND INTERCONNECTION?**

9 A. As I have explained above, a POI is the physical demarcation point to which
10 Level 3 may have Qwest provision/build transport facilities between Level 3's
11 network and Qwest's network. This demarcation point/POI allows separation of
12 responsibility for the respective network operators to maintain and control the
13 performance of each network. Interconnection, on the other hand, includes the
14 actual establishment of the transport connection between Level 3's POI and
15 Qwest's network.

16 **Q. WHAT FACILITY ARRANGEMENTS DOES QWEST PROVIDE FOR**
17 **INTERCONNECTION WITH LEVEL 3?**

18 A. There are four facility arrangements or methods of establishing interconnection
19 with Qwest: (1) DS1 or DS3 Qwest provided facility; (2) Collocation; (3)
20 negotiated Mid-Span Meet POI facilities; and (4) other Technically Feasible

1 methods of Interconnection. Level 3 may use any or all of these options to
2 establish interconnection with Qwest.

3 The “DS1 or DS3 Qwest provided facility” is an option for establishing
4 interconnection where Qwest provisions/builds a transport facility to the Level 3
5 POI either at the DS1 level of transmission or at a DS3 level of transmission.
6 DS1s and DS3s are merely different bandwidths or capacities of transport
7 facilities that Qwest provisions/builds to Level 3’s POI that are located within the
8 same Qwest wire center. The Qwest provided facility described here is also
9 known as an entrance facility.

10 Collocation is an option by which Level 3 may extend its facilities into a Qwest
11 central office and terminate them to collocate within that central office to
12 establish a POI. Qwest would then provision/build interconnection facilities to
13 the Level 3 Collocation. This Collocation may also be a third party Collocation.

14 “Negotiated Mid-Span Meet POI facilities” is an option where Level 3 extends its
15 own facilities to a negotiated point approximately half way between the Level 3
16 SPOI and Qwest’s wire center building. With this arrangement, Level 3 builds its
17 portion of the transport facilities while Qwest builds its portion of its transport
18 facilities to an agreeable location for interconnection at the midpoint between
19 Level 3’s POI and Qwest’s network. This allows Level 3 and Qwest to equally

1 share in the cost of building the transport required for Level 3 to interconnect with
2 Qwest.

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

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

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

14 **Q. ARE THERE ANY OTHER FACILITIES THAT MAY BE REQUIRED**
15 **FOR INTERCONNECTION?**

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

1 Q. IS LEVEL 3'S PROPOSED LANGUAGE CONSISTENT WITH THESE
2 METHODS OF INTERCONNECTION?

3 A. No. Level 3's proposed language mischaracterizes these methods as a way to
4 establish its POI rather than the methods by which to connect its POI to the Qwest
5 network. However, among these methods, only one involves establishing a POI
6 and the others provide the underlying transport for interconnection to Level 3's
7 POI. Although Collocation does not provide interconnection, it does provide the
8 basis of the facility arrangements needed to establish interconnection. For
9 example, if Level 3 were to collocate in a Qwest central office, the Collocation
10 only provides Level 3 with space within the Qwest central office to establish
11 Level 3's POI. Interconnection facilities would then have to be provisioned to
12 Level 3's Collocation POI. Such a facility could be as simple as a wire jumper
13 that connects existing Qwest transport facilities with Level 3's facilities.

14 In short, interconnection is provided after a POI is established. Each of the
15 methods my testimony describes above are methods for establishing the transport
16 for interconnection or in the case of Collocation for establishing the basis of the
17 facility arrangement to obtain interconnection.

1 **Q. WHAT SERVICE DOES QWEST PROVIDE THAT USES THESE**
2 **FACILITY ARRANGEMENTS FOR THE EXCHANGE OF TRAFFIC?**

3 A. Qwest provides Local Interconnect Service (“LIS”) using these facility
4 arrangements. Qwest will and does provision LIS to Level 3 using the facility
5 arrangement that Level 3 has found best fits its needs.

6 **Q. WHAT IS LIS?**

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

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

15 A. LIS is provisioned by using transport facilities and logical trunk connections that
16 are programmed into Qwest’s switches. Switches are also equipped with
17 interfaces so that they may be connected to one another with transport facilities.
18 The facility options my testimony describes above are the transport options Level
19 3 may use to connect its switches with Qwest’s switches. Logical trunk
20 connections then must be created to allow calls to be routed onto and off of these
21 facilities in order for telecommunications traffic to flow between the switches.

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

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

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

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

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

19 LIS to Qwest's access tandem allows for Level 3 to send and receive its end
20 users' traffic to and from IXCs that are connected to that access tandem. This

1 traffic may also consist of IntraLATA transit traffic to a third local carrier. In
2 addition, Level 3 may send intraLATA toll that its end users originate.

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

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

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

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

14 A. Yes. Not all local carriers, Interexchange Carriers ("IXCs") or Qwest end offices
15 have trunking with each Qwest access tandem. Therefore, separate trunking to
16 each access tandem may be required to the extent there is more than one access
17 tandem in a LATA. In addition, and as I explain in issue 1F, it may be necessary
18 for Level 3 to establish trunking, where traffic volumes justify, directly to local
19 tandem switches or end office switches. Although additional trunking may be
20 required within a LATA, it will not require more than a single POI per LATA.

1 **Q. IS LEVEL 3 REQUIRED TO INTERCONNECT AT EVERY ACCESS**
2 **TANDEM IN THE LATA?**

3 A. No. Level 3 must only interconnect its POI to an access tandem where Level 3's
4 traffic is destined for a local carrier, IXC or Qwest end office that subtends that
5 access tandem. For example, in Idaho, Level 3 would only be required to connect
6 to one access tandem in Boise at this time.

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

8 A. Qwest language more appropriately reflects the interconnection between Qwest's
9 network and Level 3's network. Unlike Level 3's language, Qwest's language
10 does not confuse what is required to create a POI with what is realistically
11 required to interconnect two networks.

12 **Issue No. 1F**

13 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 1F.**

14 A. Level 3 removes the language describing how Level 3 may interconnect at
15 Qwest's local and access tandem switches. Level 3 also removes the requirement
16 for Level 3 to establish trunking as requested by Qwest where traffic volumes
17 justify alternate trunking. My testimony will explain why this language is
18 important from a technical perspective. In addition, Level 3 again inappropriately
19 inserts the disclaimer that it should not have to pay for the use of the Qwest
20 network. The testimony of Mr. Easton explains that Level 3's language not only

1 ignores Level 3's obligations under the law, but is also clearly misplaced in a
2 section describing the technical aspects of interconnection.

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

4 A. Qwest proposes the following, which is found on page 80 of the ICA:

5 7.2.2.9.6 The Parties shall terminate Exchange
6 Service (EAS/Local) traffic on Tandem Switches or End
7 Office Switches. CLEC may interconnect at either the
8 Qwest local tandem or the Qwest access tandem for the
9 delivery of local exchange traffic. When CLEC is
10 interconnected at the access tandem and when there is a
11 DS1 level of traffic (512 BHCCS) over three (3)
12 consecutive months between CLEC's Switch and a Qwest
13 End Office Switch, Qwest may request CLEC to order a
14 direct trunk group to the Qwest End Office Switch. CLEC
15 shall comply with that request unless it can demonstrate
16 that such compliance will impose upon it a material adverse
17 economic or operations impact. Furthermore, Qwest may
18 propose to provide Interconnection facilities to the local
19 Tandem Switches or End Office Switches served by the
20 Access Tandem Switch at the same cost to CLEC as
21 Interconnection at the Access Tandem Switch. If CLEC
22 provides a written statement of its objections to a Qwest
23 cost-equivalency proposal, Qwest may require it only: (a)
24 upon demonstrating that a failure to do so will have a
25 material adverse affect on the operation of its network and
26 (b) upon a finding that doing so will have no material
27 adverse impact on the operation of CLEC, as compared
28 with Interconnection at such Access Tandem Switch.

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

30 A. Level 3 proposes the following:

31 7.2.2.9.6 When CLEC is interconnected at the access
32 tandem and when there is a DS1 level of traffic (512
33 BHCCS) over three (3) consecutive months between

1 CLEC's Switch and a Qwest End Office Switch, Qwest
2 may request CLEC to order a direct trunk group to the
3 Qwest End Office Switch. Notwithstanding references to
4 Qwest's ability to requests that CLECs order direct trunk
5 groups to the Qwest end office, nothing in this agreement
6 shall be construed to require CLEC to pay Qwest for any
7 services or facilities on Qwest's side of the POI in
8 connection with the origination of traffic from Qwest to
9 CLEC; and nothing herein shall be construed to require
10 CLEC to pay for any services or facilities on Qwest's side
11 of the POI in connection with the termination of traffic
12 from CLEC by Qwest, other than reciprocal compensation
13 payments as provided in this Agreement.

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

15 A. Level 3 has removed the language that specifies tandems and end offices as points
16 where traffic terminates. Level 3's proposed language ignores Qwest's existing
17 network architecture, creating ambiguity and non-specificity that may lead to later
18 disputes. (There are no other locations on Qwest's network where traffic may be
19 delivered.) More disturbingly, Level 3 removes the requirement to establish
20 trunking to subtending network switches when increases in traffic volumes justify
21 the alternate trunking. This is critical in maintaining a robust and reliable network
22 for not only all interconnecting carriers (including Level 3), but also for Qwest
23 customers as well, by insuring that network capacity may be managed and
24 maintained efficiently.

1 Q. ARE THERE ANY OTHER METHODS BY WHICH LEVEL 3 MAY
2 EXCHANGE TRAFFIC?

3 A. No. By removing the language that allows for the exchange of Local/EAS traffic
4 to Qwest tandems, Level 3 implies that there are other locations that Level 3 may
5 exchange traffic with Qwest's network. There are no other methods for Level 3
6 to exchange Local/EAS traffic directly with Qwest than through Qwest's tandems
7 and end offices.

8 Q. ARE THERE OTHER TERMINATION POINTS IN THE PUBLIC
9 SWITCHED TELEPHONE NETWORK ("PSTN") THAT OPERATE
10 DIFFERENTLY THAN AN END OFFICE OR A TANDEM?

11 A. No. Switches perform essentially two functions in the telecommunications
12 network. They either operate with a tandem function or an end office function.

13 Q. WHAT IS THE DIFFERENCE BETWEEN AN END OFFICE AND A
14 TANDEM?

15 A. An end office serves end user customers. It is typically the last point of switching
16 before traffic reaches the end user customers and is the point from which an end
17 user customer draws dial tone and which performs the initial processing of a call
18 from an end user served by that end office. A tandem switch on the other hand
19 serves other switches. In other words tandem switches route traffic to other
20 switches. This network architecture is not unique to Qwest, and Level 3's refusal

1 to acknowledge its existence is illogical, considering that it wants to interconnect
2 with such a network.

3 **Q. WHY IS IT IMPORTANT TO ESTABLISH THE FUNCTION OF THE**
4 **SWITCHES WHERE LOCAL TRAFFIC SHOULD TERMINATE?**

5 A. It is important to identify the function of switches so that there is no confusion as
6 to the network switching functions to which the Interconnection Agreement
7 (“ICA”) applies. Without this language, Level 3 may seek interconnection
8 utilizing a function that the Qwest network is not capable of providing. It is
9 important that the agreement identify the type of traffic and the function of the
10 switches where that traffic will be accepted so that this is clear to both parties.
11 Qwest’s language provides this clarity. Level 3’s language does not.

12 **Q. WHY DOES QWEST OPPOSE THE REMOVAL OF LANGUAGE THAT**
13 **REQUIRES LEVEL 3 TO ESTABLISH TRUNKING TO SUBTENDING**
14 **NETWORK SWITCHES WHEN VOLUMES JUSTIFY ALTERNATE**
15 **TRUNKING?**

16 A. Level 3’s proposed language removes any responsibility for Level 3 to establish
17 alternate trunking to maintain efficient use of network resources that are shared by
18 all interconnecting carriers. By removing language that requires efficient use of
19 the network Level 3 has the potential to negatively impact Qwest’s switching
20 resources, their reliability and their availability to all other interconnecting
21 carriers. Level 3 attempts to avoid its responsibility to maintain network

1 robustness and efficiency which other carriers interconnected with Qwest have
2 previously acknowledged and assumed.

3 **Q. DOES THE REQUIREMENT TO ESTABLISH ALTERNATE TRUNKING**
4 **CREATE A FINANCIAL BURDEN ON LEVEL 3?**

5 A. No. Direct trunking will typically save Level 3 money because with it Level 3
6 would avoid tandem switching charges. However, if the result of establishing
7 alternate trunking is an economic burden, then Qwest's language provides a
8 mechanism for Level 3 to avoid that burden. Under Qwest's proposed language,
9 if Level 3 demonstrates that an economic burden exists, the requirement to
10 establish alternate trunking is waived.

11 **Q. DOES QWEST PROVIDE ANY ASSISTANCE IN IDENTIFYING**
12 **TRUNKING THAT HAS BECOME INEFFICIENT?**

13 A. Yes, Qwest monitors the volumes of traffic exchanged with Qwest that are
14 destined to and from Qwest end offices. Qwest then generates reports that
15 identify inefficient trunking. These reports are then shared with Level 3 along
16 with a request to establish direct trunking and instructions as to which end
17 office(s) direct trunking should be established.

1 Q. HAS LEVEL 3 BEEN COOPERATIVE WHEN WORKING WITH QWEST
2 ON TRUNKING ISSUES?

3 A. Yes. Level 3 has historically been very cooperative when working with Qwest's
4 trunk administration group. Level 3's proposed language which refuses to
5 maintain network efficiencies is surprising given the cooperative history that has
6 in the past existed between Qwest and Level 3.

7 Q. WHAT IS THE 512 BHCCS?

8 A. 512 BHCCS or 512 Busy Hour Centum Call Seconds is the measure of usage
9 capacity of a DS1 trunk during the busiest hour of the day. Usage is measured in
10 Centum Call Seconds ("CCS") or one hundred call seconds. A line or trunk that
11 is in use for one hour, or sixty minutes, is being used for 3600 seconds, or 36
12 hundred call seconds, or 36 CCS. As stated in Newton's Telecom Dictionary
13 CCS is: "One hundred call seconds or one hundred seconds of telephone
14 conversation. One hour of telephone traffic is equal to 36 ccs
15 (60*60=3600/100=36) which is equal to one erlang." Newton's Telecom
16 Dictionary, Volume 17 at 131 (February 2001). 512 BHCCs is essentially
17 equivalent to a DS1 worth of usage. Telecommunications switch ports typically
18 are provisioned in increments of DS1 capacity. It is generally recognized by the
19 industry as the traffic threshold that indicates a sufficiently high volume of traffic
20 that would warrant the provisioning of alternative, direct trunking arrangements.

1 **Q. WHAT IS THE 512 BHCCS RULE?**

2 A. The 512 BHCCS rule establishes the threshold of usage which when reached
3 means that direct trunking between end offices is typically more efficient than
4 trunking that usage through a tandem switch.

5 **Q. HOW DOES QWEST LANGUAGE CREATE EFFICIENT USE OF THE**
6 **NETWORK?**

7 A. Qwest's language establishes a threshold that facilitates efficient interconnection
8 between Qwest and all CLEC switches. The threshold allows Qwest to manage
9 traffic through tandem switches when traffic volumes justify a direct connection
10 with a specific end office. As can be seen in Qwest Exhibit Nos. 304 and 305, as
11 CLEC traffic that is destined for a Qwest end office reaches or exceeds 512
12 BHCCS, or a DS1's capacity it becomes logical to direct trunk to that end office.
13 Qwest Exhibit No. 304 shows that the traffic volume spread across all end offices
14 is less than the capacity of a single switch port, whereas, PL-2 demonstrates that
15 end office A is at the capacity of a single switch port and has a direct trunk with
16 the CLEC switch. This creates network efficiencies by eliminating the need to
17 provide additional switching through the tandem.

1 Q. DOES QWEST USE THE SAME THRESHOLD TO EVALUATE ITS
2 OWN NETWORK TRUNKING EFFICIENCIES?

3 A. Yes. Qwest applies the same network threshold in its own trunking analysis so
4 that it may better utilize the trunking capacity between its end offices and
5 tandems.

6 Q. WHAT WOULD BE THE RESULT IF NO INTERCONNECTING
7 CARRIERS FOLLOWED THE 512 BHCCS RULE?

8 A. All switches have limits for trunking capacity. As carriers add more and more
9 trunking to each tandem, the tandems would begin to reach capacity. Once a
10 tandem reaches its maximum trunking capacity, an additional tandem would have
11 to be installed.

12 IV. DISPUTED ISSUES NO. 2A AND 2B: ALL TRAFFIC ON
13 INTERCONNECTION TRUNKS

14 Q. PLEASE EXPLAIN DISPUTED ISSUES NO. 2A AND 2 B.

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

1 Q. WHAT LANGUAGE IS QWEST PROPOSING?

2 A. Qwest is proposing the following language, found on pages 78 and 79 of the ICA:

3 7.2.2.9.3.1 Exchange Service (EAS/Local), ISP-Bound
4 Traffic, IntraLATA LEC Toll, VoIP traffic and Jointly
5 Provided Switched Access (InterLATA and IntraLATA
6 Toll involving a third party IXC) may be combined in a
7 single LIS trunk group or transmitted on separate LIS trunk
8 groups.

9 7.2.2.9.3.1.1 If CLEC utilizes trunking
10 arrangements as described in Section 7.2.2.9.3.1, Exchange
11 Service (EAS/Local) traffic shall not be combined with
12 Switched Access, not including Jointly Provided Switched
13 Access, on the same trunk group, i.e. Exchange Service
14 (EAS/Local) traffic may not be combined with Switched
15 Access Feature Group D traffic to a Qwest Access Tandem
16 Switch and/or End Office Switch.

17 7.2.2.9.3.2 CLEC may combine originating
18 Exchange Service (EAS/Local) traffic, ISP-Bound Traffic,
19 IntraLATA LEC Toll, VoIP Traffic and Switched Access
20 Feature Group D traffic including Jointly Provided
21 Switched Access traffic, on the same Feature Group D
22 trunk group.

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

1 Q. WHAT LANGUAGE IS LEVEL 3 PROPOSING?

2 A. Level 3 proposes the following language:

3 7.2.2.9.3.1 Where CLEC exchanges Telephone
4 Exchange Service, Exchange Access Service, Telephone
5 Toll Service, and Information Services traffic with Qwest
6 over a single interconnection network, CLEC agrees to pay
7 Qwest, on Qwest's side of the POI, state or federally
8 tariffed rates applicable to the facilities charges for
9 InterLATA and/or InterLATA traffic in proportion to the
10 total amount of traffic exchanged over such interconnection
11 facility. Otherwise each party remains 100% responsible
12 for the costs of its interconnection facilities on its side of
13 the POI. Thus, by way of illustration only, where 20% of
14 such traffic is interLATA (intrastate and interstate) and the
15 remaining 80% is Section 251(b)(5) Traffic, CLEC would
16 pay Qwest an amount equal to 20% of the applicable
17 tariffed transport rate that would apply to a tariffed facility
18 used solely for the exchange of such access traffic for such
19 traffic exchanged on Qwest's side of the POI over a single
20 interconnection trunk.

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

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

1 of the POI. If traffic is combined, Section 7.3.9 of this
2 Agreement applies.

3 7.2.2.9.3.2 CLEC may combine Exchange Service
4 (EAS/Local) traffic, ISP-Bound Traffic, Exchange Access
5 (IntraLATA Toll carried solely by Local Exchange
6 Carriers), VoIP Traffic and Switched Access Feature Group
7 D traffic including Jointly Provided Switched Access
8 traffic, on the same Feature Group D trunk group or over
9 the same interconnection trunk groups as provided in
10 Section 7.3.9.

11 **Q. WHAT CONCERNS DOES QWEST HAVE WITH LEVEL 3'S**
12 **PROPOSED LANGUAGE?**

13 A. Level 3 is proposing to route switched access traffic over local trunks. This
14 creates several technical problems that have various impacts to Qwest, CLECs
15 and independent companies. These technical problems are mainly associated with
16 the recording of the switched access traffic. Switched access traffic is typically
17 routed over access service trunks such as Feature Group D ("FGD") trunks. Level
18 3's proposed language creates technical difficulties that would otherwise be
19 avoided by using the access service trunks which all other Interexchange service
20 providers establish with Qwest. Qwest has also provided Level 3 with language
21 that would allow Level 3 to route all its traffic over FGD. The routing of Level
22 3's traffic over FGD trunking provides Level 3 with the same efficiencies that it
23 will argue that it would obtain if it were allowed to route traffic over local
24 interconnection trunking. Furthermore, Qwest's proposed language is in keeping
25 with industry practice.

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

2 A. Switched access traffic is InterLATA and IntraLATA traffic that routes to and
3 from IXCs. This traffic typically routes between IXCs and Local Exchange
4 Carriers (“LECs”). IXCs purchase switched access services from LECs so that
5 they may receive and deliver InterLATA toll and IntraLATA toll traffic to and
6 from LECs networks. This switched access service typically utilizes Feature
7 Group trunking. Feature Group trunking is a software feature of a
8 telecommunications switch that allows IntraLATA toll and InterLATA toll traffic
9 to be routed to IXC networks. FGD is the most common software feature used to
10 route traffic to IXCs on an equal access basis. This traffic is specific to IXCs.

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

13 A. Yes.

14 **Q. WHAT TYPES OF TRAFFIC DOES LEVEL 3 INTEND TO ROUTE**
15 **OVER LIS TRUNKING?**

16 A. Level 3 intends to route switched access traffic that Level 3 carries on behalf of
17 other IXCs over LIS trunks established by Level 3 with Qwest. This is traffic that
18 other IXCs agree to send to Level 3 to facilitate the termination of switched
19 access traffic on the IXC’s behalf.

1 Q. WHAT OPTIONS DOES LEVEL 3 HAVE TO ROUTE AND TRANSPORT
2 SWITCHED ACCESS TRAFFIC?

3 A. Level 3 has several options that it may use to transport and route switched access
4 traffic on behalf of other IXCs. Level 3 may route the traffic directly to the
5 corresponding Level 3 end user customer, the appropriate location designated by
6 the terminating LEC network, or to yet another IXC.

7 Q. IS THE ROUTING OF SWITCHED ACCESS TRAFFIC THAT YOUR
8 TESTIMONY DESCRIBED ABOVE DIFFERENT FROM THE WAY
9 OTHER IXCS MAY ROUTE SWITCHED ACCESS TRAFFIC?

10 A. No. Other IXCs typically route traffic in the same manner as I have just described
11 in my testimony.

12 Q. WHAT SPECIFIC TECHNICAL PROBLEMS WOULD BE CREATED IF
13 LEVEL 3 ROUTES SWITCHED ACCESS TRAFFIC OVER LIS
14 TRUNKS?

15 A. The most significant problem with routing switched access traffic over LIS trunks
16 is Qwest's inability to generate a record for billing. Specifically, Qwest's
17 recording of LIS trunks is not designed or engineered to record switched access
18 traffic for the purposes of billing switched access charges for that traffic.

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

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

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

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

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

1 **Q. IS A SWITCH-BASED RECORD CREATED ON LOCAL CALLS?**

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

9 **Q. DOES CROSS7 RECORD SWITCHED ACCESS FOR BILLING**
10 **PURPOSES?**

11 A. No. There was no need to enable CroSS7 to record switched access traffic or to
12 incur the expense of monitoring additional services, because access service
13 recording was done by a switch based recording associated with access service
14 trunking. CroSS7 was developed solely to record local traffic that was exchanged
15 with CLECs.

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

19 A. No. Because CroSS7 was not engineered to record switched access traffic, Qwest
20 would not have the ability to create a switched access record for billing purposes.

1 Q. WHAT OTHER PROBLEMS WOULD OCCUR IF LEVEL 3 WERE
2 ALLOWED TO ROUTE SWITCHED ACCESS TRAFFIC OVER LIS
3 TRUNKS?

4 A. If Level 3 were to route switched access traffic over its local LIS with Qwest,
5 other carriers such as independent companies and other CLECs would not receive
6 a jointly provided switched access record. In other words, CLECs and
7 independent companies that terminate Level 3's switched access traffic routed
8 over LIS trunks would not have the ability to bill terminating access charges to
9 Level 3.

10 Q. WILL QWEST PROVIDE LEVEL 3 THE CAPABILITY TO ROUTE
11 BOTH SWITCHED ACCESS TRAFFIC AND LOCAL TRAFFIC OVER A
12 SINGLE TRUNK GROUP?

13 A. Yes.

14 Q. WHAT IS QWEST OFFERING TO LEVEL 3 THAT PROVIDES LEVEL 3
15 THE CAPABILITY IT IS SEEKING?

16 A. Qwest's proposed language gives Level 3 the capability it is seeking. Qwest's
17 language allows Level 3 to route both its local and toll traffic over FGD trunking.
18 As I described above, these trunks are typically used for routing switched access
19 traffic. Qwest has developed a methodology for Level 3 to route its local traffic
20 over these same trunks. Furthermore, Qwest has also developed the ability to

1 record this traffic so that local traffic and access traffic are billed appropriately.
2 AT&T has similar routing provisions in its agreement with Qwest.

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

6 A. No. Network efficiency is not an argument against using an established method
7 for routing Level 3's switched access traffic and local traffic over FGD trunking.
8 Once again, Level 3's argument can be distilled down to the charges it might pay
9 and not network efficiencies or technical feasibility. Level 3 does not want to pay
10 the same rates as all other IXCs to provision its ability to route switched access
11 traffic to Qwest.

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

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

1 **V. DISPUTED ISSUE NO. 6: AMA SWITCH TECHNOLOGY**

2 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 6.**

3 A. This issue was never a point of contention during the negotiation of the ICA and
4 only became an issue upon Level 3's filing of its petition for arbitration. The issue
5 in dispute here is the use of the term "inherent in Switch technology" within the
6 definition of Automated Message Accounting ("AMA"). Level 3 disputes the use
7 of the language "inherent in Switch technology."

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

9 A. Qwest proposes the following, on page 12 of the ICA:

10 "Automated Message Accounting" or "AMA" is the
11 structure inherent in Switch technology that initially
12 records telecommunication message information. AMA
13 format is contained in the AMA document, published by
14 Telcordia Technologies, or its successors, as GR-1100-
15 CORE which defines the industry standard for message
16 recording.

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

18 A. Level 3 proposes the following:

19 "Automated Message Accounting" or "AMA" is the
20 structure that initially records telecommunication message
21 information. AMA format is contained in the AMA
22 document, published by Telcordia Technologies, or its
23 successors, as GR-1100-CORE which defines the industry
24 standard for message recording.

1 **Q. IS QWEST WILLING TO REMOVE THE LANGUAGE THAT LEVEL 3**
2 **PROPOSES TO REMOVE IN THE DEFINITION FOR AUTOMATED**
3 **MESSAGE ACCOUNTING?**

4 A. Yes. The phrase "inherent in Switch technology" has no significant impact on the
5 definition of AMA and can be removed.

6 **VI. DISPUTED ISSUE NO. 8: DEFINITION OF CALL RECORD**

7 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 8.**

8 A. The disputed issue No. 8 concerns what information should be included in the
9 record of a call. Specifically, what call information must be provided in a call
10 record so that the record may be used for intercarrier billing purposes? Although
11 there are some technical limitations in some cases that prohibit the identification
12 of the origination of a call, a call record must include certain fundamental
13 information to create a record for billing purposes. Qwest objects to Level 3's
14 redefining of longstanding industry practice. Level 3's proposed language would
15 require call information that is not necessary for the creation of a call record but
16 omit other information that that is required for the creation of a call record.

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

18 A. Qwest proposes the following, on page 13 of the ICA:

19 "Call Record" means a record that provides key data about
20 individual telephone calls. It includes originating telephone
21 number, terminating telephone number, billing telephone

1 number (if different from originating or terminating
2 number) time and date of call, duration of call, long
3 distance carrier (if applicable), and other data necessary to
4 properly rate and bill the call.

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

6 A. Level 3 proposes the following:

7 "Call Record" shall include identification of the following:
8 charge number, Calling Party Number ("CPN"), Other
9 Carrier Number ("OCN"), or Automatic Number Identifier
10 ("ANI"), Originating Line Indicator ("OLI"). In the
11 alternative, a "Call Record" may include any other
12 information agreed upon by both Parties to be used for
13 identifying the jurisdictional nature of the calling party or
14 for assessing applicable intercarrier compensation charges.

15 **Q. WHY IS QWEST OPPOSED TO LEVEL 3'S PROPOSED DEFINITION**
16 **OF A CALL RECORD?**

17 A. Level 3's definition of a call record obligates both parties to provide certain types
18 of information about a call that may not be available on every call and requires
19 information about a call that has never been required by industry standards. Level
20 3 also omits information that is essential for a complete call record. In addition,
21 Level 3 uses terms that are unclear and undefined by the telecommunications
22 industry.

1 Q. WHAT DOES LEVEL 3'S LANGUAGE REQUIRE THAT MAY NOT BE
2 AVAILABLE FOR ALL VALID CALL RECORDS AND WHY DOES
3 QWEST OPPOSE THE OBLIGATION TO PROVIDE THIS
4 INFORMATION?

5 A. Qwest opposes Level 3's language because it obligates both parties to provide call
6 information that is not necessary to generate a valid call record. There are two
7 examples of call information specified by Level 3 that are not necessary to create
8 a valid call record.

9 Level 3's language requires a "charge number" or "Originating Line Indicator"
10 ("OLI"). The Charge Number parameter and the Originating Line Information
11 ("OLI") parameter are optional SS7 parameters that identify the billing telephone
12 number and class of service of a call respectively. Local signaling does not
13 require either Charge Number or OLI.³ As a result, valid call records would not
14 be created under Level 3's definition for local calls. In addition, because IXCs
15 typically strip Charge Number and OLI when terminating a call through Qwest to
16 other local service providers via Jointly Provided Switched Access, terminating
17 access records would also become invalid call records under Level 3's definition.

³ GR-246-CORE, Telcordia Technologies Specification of Signaling System Number 7, Issue 6 December 2001.

1 Level 3 obligates both parties to provide specific call information by
2 incorporating the word "shall" in its proposed definition of a call record.

3 **Q. WHAT IS SS7 AND HOW IS IT USED AS REFERENCED ABOVE?**

4 A. Signaling System 7 or SS7 is an out of band Common Channel Signaling ("CCS")
5 protocol that enables the set up and release of calls between switches throughout
6 the PSTN. SS7 CCS also enables and initiates the recording of traffic for billing
7 purposes. SS7 CCS uses a separate network than the one that carries the voice
8 conversations between switches, thus the term out of band signaling. Unlike its
9 Multifrequency signaling predecessor, SS7 CCS also uses digital transmission
10 that enables more call associated information in less amount of time to be
11 transmitted between switches that serve the end points of a call. A portion of the
12 SS7 protocol is made up of parameters which are used to provide specific
13 information about a call. These signaling parameters are defined by industry
14 standards and populated under specific defined circumstances. Some parameters
15 are mandatory with any call. For example, the called party number parameter
16 must always be populated in the signaling stream for a call to complete.
17 However, some parameters are mandatory with only specific types of calls. For
18 example, the OLI parameter is needed for call completion only when the call is
19 signaled to an IXC.

1 Q. DOES QWEST HAVE A WAY OTHER THAN SIGNALING TO PROVIDE
2 CHARGE NUMBER OR ORIGINATING LINE INFORMATION?

3 A. No. Signaling is the only way that Qwest is capable of providing real time
4 Charge Number and OLI that would enable Level 3 to create a call record as
5 defined by Level 3's proposed definition. I am not aware of any proposal from
6 Level 3 that would provide Qwest with the same Charge Number or OLI on all
7 calls, both local and non-local, without the use of signaling.

8 Q. WHAT CALL INFORMATION ELEMENT DOES LEVEL 3 OMIT WITH
9 ITS PROPOSED DEFINITION OF CALL RECORD AND WHY IS IT
10 IMPORTANT?

11 A. Level 3 has omitted call duration in its proposed definition of call record. It is
12 important to include call duration in a call record because intercarrier
13 compensation is based on network usage which is determined by the fundamental
14 information provided by the call duration. Because today's intercarrier
15 compensation is usage sensitive, the lack of call duration on a call record used for
16 billing would void any record that does not have call duration information. In
17 addition to call duration, Level 3 has also omitted the time and date call
18 information. Time and date are also important so that the call information can be
19 associated specific to each particular call that is made throughout each day. This
20 type of information is essential when trouble shooting discrepancies in billing
21 information.

1 **Q. WHAT TERMS DOES LEVEL 3 USE THAT APPEAR TO BE UNCLEAR**
2 **AND UNDEFINED?**

3 A. “Charge number”, “Other Carrier Number” (“OCN”), “Automatic Line Identifier”
4 (“ANI”), and “OLI” are four terms that are unclear, undefined, or inconsistent
5 with the other uses of the terms that are defined in the proposed ICA.

6 “Charge number” The term “charge number” as Level 3 references in the
7 definition of Call Record is used with a different meaning than the undisputed
8 definition in the ICA. Level 3’s use of “charge number” creates the potential for
9 differing interpretations of what constitutes a charge number. It is important that
10 the definition be specific when using terms that are otherwise defined in other
11 parts of the proposed ICA.

12 “OCN” This acronym is undefined in the proposed ICA and its equivalent
13 acronym has an alternate meaning in the telecommunications industry. The
14 industry uses the abbreviation “OCN” to represent “Operating Company
15 Number.” Without a definition of OCN in the proposed ICA that either confirms
16 the same definition for both terms or specifically defines OCN to mean something
17 different from its use in the telecommunication industry there will be disputes
18 about its meaning.

19 “ANI” and “OLI” These terms are defined differently in the proposed ICA from
20 the way Level 3 has defined these terms in their proposed definition of Call

1 Record. The undisputed proposed ICA definitions of these terms are "ANI" and
2 OLI where the "I" in ANI is not Identifier and the "I" in OLI is not "Indicator" as
3 is otherwise defined in the Qwest proposed ICA and in the telecommunications
4 industry. These terms are specifically defined in this ICA to correspond with the
5 Industries' definition of the SS7 parameters that correspond to these terms.

6 **Q. WHAT OTHER PROBLEMS WOULD ARISE IF CALL RECORD WERE**
7 **DEFINED BY LEVEL 3'S PROPOSED LANGUAGE?**

8 A. Qwest would then be required to provide a call record specifically for Level 3 and
9 then a second call record for all other carriers with which Qwest exchanges
10 records. This would then require Qwest to implement two different processes and
11 potentially enhance its billing systems to accommodate the different call record
12 requirements. All CLECs that follow industry standard would follow one type of
13 call record requirement and Level 3 would then use an entirely new process that
14 may require potential systems enhancements. This could take a number of years
15 to develop. Regardless of whether Qwest were to develop this new call record
16 and enhance the current systems to handle the changes or develop a separate
17 manual process, it will require additional capital expense based solely on Level
18 3's request to change the existing call record requirements that to this point all
19 other carriers in the industry follow.

1 **Q. WHY SHOULD QWEST'S DEFINITION OF CALL RECORD BE USED**
2 **IN THE ICA BETWEEN LEVEL 3 AND QWEST?**

3 A. Qwest's definition of call record should be used because it includes the
4 fundamental information that is required to create a valid call record and the
5 flexibility to include other data that may be used to rate and bill calls for
6 intercarrier compensation purposes. In addition, Qwest uses terms that are
7 specific enough to identify what is required while at the same time remaining
8 flexible enough to encompass all of the optional parameters that Level 3 wishes to
9 require should they eventually become industry requirements. Unlike Level 3's
10 language, Qwest's language does not include call information that could create
11 disputes over the interpretation of the terms used in the definition. Likewise,
12 Qwest's language eliminates any potential dispute as to whether the existence of
13 call duration and the time and date a call occurred are required in a valid call
14 record. Simply put, Qwest's language addresses all of Level 3's concerns, more
15 clearly establishes the expectations of both companies for the creation of a valid
16 call record, and has the flexibility to include additional call information that may
17 be required to generate a valid call record in the future.

18 **VII. DISPUTED ISSUE NO. 20: SIGNALING PARAMETERS**

19 **Q. PLEASE EXPLAIN DISPUTED ISSUE NO. 20.**

20 A. The issue at dispute here is what SS7 signaling information should be required for
21 the exchange of traffic between Qwest and Level 3.

1 Q. WHAT LANGUAGE IS QWEST PROPOSING?

2 A. Qwest proposes the following, on page 87 of the ICA:

3 7.3.8 Signaling Parameters: Qwest and CLEC are
4 required to provide each other the proper signaling
5 information (e.g., originating Calling Party Number and
6 destination called party number, etc.) per 47 CFR 64.1601
7 to enable each Party to issue bills in a complete and timely
8 fashion. All CCS signaling parameters will be provided
9 including Calling Party Number (CPN), Originating Line
10 Information Parameter (OLIP) on calls to 8XX telephone
11 numbers, calling party category, Charge Number, etc. All
12 privacy indicators will be honored. If either Party fails to
13 provide CPN (valid originating information), and cannot
14 substantiate technical restrictions (i.e., MF signaling) such
15 traffic will be billed as Switched Access. Traffic sent to the
16 other Party without CPN (valid originating information)
17 will be handled in the following manner. The transit
18 provider will be responsible for only its portion of this
19 traffic, which will not exceed more than five percent (5%)
20 of the total Exchange Service (EAS/Local) and Exchange
21 Access (IntraLATA Toll) traffic delivered to the other
22 Party. The Switch owner will provide to the other Party,
23 upon request, information to demonstrate that Party's
24 portion of no-CPN traffic does not exceed five percent
25 (5%) of the total traffic delivered. The Parties will
26 coordinate and exchange data as necessary to determine the
27 cause of the CPN failure and to assist its correction. All
28 Exchange Service (EAS/Local) and IntraLATA LEC Toll
29 calls exchanged without CPN information will be billed as
30 either Exchange Service (EAS/Local) Traffic or IntraLATA
31 LEC Toll Traffic in direct proportion to the minutes of use
32 (MOU) of calls exchanged with CPN information for the
33 preceding quarter, utilizing a PLU factor determined in
34 accordance with Section 7.2.2.9.3.2 of this Agreement.

35 Q. DOES QWEST HAVE ANY MODIFICATIONS TO ITS PROPOSED
36 LANGUAGE?

37 A. Yes. To clarify 7.3.8 Qwest wishes to replace the following sentence:

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Qwest Corporation
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1 All CCS signaling parameters will be provided including
2 Calling Party Number (CPN), Originating Line Information
3 Parameter (OLIP) on calls to 8XX telephone numbers,
4 calling party category, Charge Number, etc.

5 With the following sentence:

6 All CCS signaling parameters will be provided including
7 Calling Party Number (CPN), Originating Line Information
8 Parameter (OLIP), calling party category, Charge Number,
9 etc. on calls to 8XX telephone numbers.

10 The preceding changes are only intended to correct a clerical error in the original
11 sentence structure.

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

13 A. Level 3 proposes the following:

14 7.3.8 Signaling Parameters: Qwest and CLEC are required
15 to provide each other proper signaling information (e.g.,
16 originating Calling Record Information and destination
17 called party number, etc.) to enable each Party to issue bills
18 in a complete and timely fashion. All CCS signaling
19 parameters will be provided including Call Record
20 Information (CRI), Originating Line Information Parameter
21 (OLIP) on calls to 8XX telephone numbers, calling party
22 category, Charge Number, etc. All privacy indicators will
23 be honored. If either Party fails to provide CRI (valid
24 originating information), and cannot substantiate technical
25 restrictions (e.g., MF signaling, IP origination, etc.) such
26 traffic will be billed as interstate Switched Access. Transit
27 Traffic sent to the other Party without CRI (valid
28 originating information) will be handled in the following
29 manner. The transit provider will be responsible for only its
30 portion of this traffic, which will not exceed more than five
31 percent (5%) of the total Exchange Service (EAS/Local)
32 and Exchange Access (IntraLATA Toll) traffic delivered to
33 the other Party. The Switch owner will provide to the other

1 Party, upon request, information to demonstrate that Party's
2 portion of no-CRI traffic does not exceed five percent (5%)
3 of the total traffic delivered. The Parties will coordinate and
4 exchange data as necessary to determine the cause of the
5 CRI failure and to assist its correction. All Exchange
6 Service (EAS/Local) and Exchange Access calls exchanged
7 without CRI information will be billed as either Exchange
8 Service (EAS/Local) Traffic or Exchange Access Traffic in
9 direct proportion to the minutes of use (MOU) of calls
10 exchanged with CRI information for the preceding quarter,
11 utilizing a PLU factor determined in accordance with
12 Section 7.2.2.9.3.2 of this Agreement.

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

14 A. Qwest objects to Level 3's language because it mischaracterizes *IP origination*
15 (emphasis added) as a technical limitation to providing signaling parameters.
16 Level 3's proposed language also creates an obligation to populate a signaling
17 parameter, specifically Call Record Information ("CRI"), which does not exist
18 within the SS7 protocol. In addition, Level 3 does not define CRI. To the extent
19 Level 3's definition of CRI would use similar terms as are used in Level 3's
20 definition of Call Record, it is not at all clear that the requirement to provide the
21 CRI can be met. Level 3's proposed language also fails to acknowledge that the
22 FCC has recognized certain limitations exist that prohibit or limit the delivery of
23 specific types of signaling information. Qwest further objects to Level 3's
24 language because it inappropriately applies interstate switched access rates onto
25 traffic that is intrastate.

1 **Q. WHY IS IT NOT NECESSARY TO ADDRESS VOIP ORIGINATED**
2 **TRAFFIC AS LEVEL 3 PROPOSES?**

3 A. Voice over Internet Protocol ("VoIP") uses a different protocol than is used by the
4 operators of the PSTN. Because of the different protocols, a conversion from the
5 Internet Protocol ("IP") to the Time Division Multiplex ("TDM") protocol of the
6 PSTN is required to enable a voice call to be established between an IP network
7 and the PSTN. However, the PSTN does not currently have the ability to
8 determine if traffic was originated in IP, at what point the conversion from IP to
9 TDM takes place, or if the traffic was originated with TDM protocol. As the
10 testimony of Mr. Brotherson explains, the ESP exemption allows an ESP, such as
11 VoIP service providers to establish a POP within a local calling area and receive
12 service that is treated as local service. It is the FCC's ESP exemption and the
13 existence of a standard signaling protocol that eliminates the need to identify
14 VoIP traffic as a signaling requirement. Thus, industry standards have not been
15 established that specify signaling as the method to identify VoIP traffic.

16 **Q. IS IT TRUE THAT VOIP IS A TECHNICAL RESTRICTION FOR**
17 **PROVIDING CPN?**

18 A. Absolutely not. Contrary to Level 3's petition and their proposed language, there
19 is no technical limitation that would prevent Level 3 from populating CPN for
20 VoIP originated traffic. In fact, VoIP traffic is subject to all of the same
21 limitations as any PSTN originated call after the IP to TDM conversion takes

1 place and the traffic enters the PSTN. All limitations that are identified by
2 Qwest's language apply once the traffic enters the PSTN. Level 3 is attempting to
3 make VoIP traffic more than it really is. It is just a voice call that is routed and
4 transported with a different protocol until the protocol changes at which point it is
5 like any other TDM call.

6 **Q. HAS THERE BEEN AN INDUSTRY STANDARD DEVELOPED TO**
7 **ADDRESS VOIP ORIGINATED CALLS?**

8 A. No. Level 3 wishes to address the signaling of VoIP traffic even though there has
9 been no industry standard established to address the identification of VoIP
10 originated traffic. Until such time as an industry standard is developed, the
11 industry must use the existing standards for signaling traffic through the PSTN
12 and the well established FCC ESP exemption rules that determine how the traffic
13 from VoIP service providers is treated. Level 3 is attempting to jump the gun
14 with regard to the identification of VoIP originated traffic by putting into place a
15 signaling solution for the identification of VoIP originated traffic that benefits
16 only itself and not the needs of the industry as a whole. It has yet to be
17 determined by industry standards whether signaling is the most appropriate
18 solution for identifying VoIP originating traffic.

1 **Q. HOW DOES LEVEL 3'S PROPOSED LANGUAGE CREATE A**
2 **SIGNALING PARAMETER THAT DOES NOT EXIST?**

3 A. Section 7.3.8 addresses signaling parameters. Level 3 seems to be attempting to
4 create a new signaling parameter called CRI by including the reference to CRI in
5 the list of SS7 signaling parameters. There is no such signaling parameter as CRI
6 that exists in the SS7 protocol. Level 3's proposed language, however, attempts to
7 prematurely redefine signaling that occurs between two networks and changes the
8 meaning and intent of the language to encompass all call record information that
9 might exist within signaling protocols.

10 **Q. WHAT WOULD BE INVOLVED IN THE CREATION OF A NEW**
11 **SIGNALING PARAMETER?**

12 A. The creation of a new signaling parameter would be a colossal undertaking. The
13 industry would first have to come to agreement on the definition of the parameter.
14 Once the parameter was defined by the industry then all vendors and carriers that
15 use the SS7 protocol in their equipment and network would have to incorporate
16 the new protocol parameter. This would have to occur for all existing and new
17 signaling equipment. This would include modification to practically every switch
18 in the United States and would also impact other countries to the extent that SS7
19 is used outside of the United States. This could take years to implement and cost
20 tens of millions of dollars. In addition, some carriers may not use the parameter
21 and others may expect to be compensated for transporting the additional data.

1 **Q. DOES LEVEL 3 DEFINE CRI?**

2 A. No. One of the problems Qwest has with CRI is that Level 3 does not define the
3 term in its proposed contract language. Since Level 3 does not define CRI, its
4 meaning in the ICA would then be left open for dispute.

5 **Q. WHAT PROBLEMS WOULD ARISE IF CRI WERE TO BE DEFINED BY**
6 **THE SAME INFORMATION THAT IS USED BY LEVEL 3 TO DEFINE**
7 **CALL RECORD?**

8 A. The same problems that arise in issue No. 8 would arise here. In addition, call
9 records and signaling serve different functions. Call signaling is real time data
10 that is used to set up and release calls across the PSTN. Call records are
11 generated using post call processing and are used for the purposes of billing.
12 Although call records may include some signaling related information, call
13 records include information that is not provided within the signaling stream such
14 as date, time, and call duration that are captured outside the signaling stream.
15 Level 3 has made section 7.3.8 more confusing and more cumbersome to manage
16 by inserting call record information that may not exist in the signaling protocol.

17 **Q. WHAT PROBLEMS DOES QWEST SEE IF LEVEL 3 WERE TO DEFINE**
18 **ONLY THE SIGNALING PARAMETERS AS ARE USED IN LEVEL 3'S**
19 **DEFINITION OF CALL RECORD?**

20 A. While Level 3 identifies several signaling parameters in its definition, there is
21 only one call parameter that could always have a substantial impact on the

1 creation of a call record. This is the Calling Party Number (“CPN”) parameter.
2 The CPN parameter is the number of the party that places a call *i.e.* the “from”
3 number. Level 3’s language inserts signaling parameters that may or may not be
4 present, thus making a call record that would otherwise be valid for billing
5 purposes invalid. Based on Level 3’s definition of call record, a call that contains
6 enough information to create a call record for Qwest and other carriers would be
7 classified as a no-CRI by Level 3. For example, if a local call is routed to Level 3
8 that lacks either a Charge Number or the Originating Line Indicator, under Level
9 3’s language, this local call would be defined as a no-CRI call even if the called
10 party number and calling party number were present in the signaling stream.
11 Typically, local calls are not signaled with Charge Number or OLI. It is for these
12 reasons that Level 3’s language will lead to disputes over what signaling
13 information is necessary for billing.

14 **Q. IS RATING NO-CPN TRAFFIC BASED ON “INTERSTATE SWITCHED**
15 **ACCESS RATES” APPROPRIATE AS PROPOSED BY LEVEL 3?**

16 **A.** No. Qwest opposes Level 3’s proposal to route interstate switched access over
17 LIS trunks as my testimony explains for Issue 2. Therefore, interstate switched
18 access charges would not be appropriately applied to No-CPN traffic.

1 Q. **WHY IS QWEST'S LANGUAGE MORE APPROPRIATE?**

2 A. Qwest's language uses terms that are clearly defined by the contract and the
3 industry. Qwest language provides clear expectations for the signaling of traffic
4 between the parties' networks.

5 **VIII. SUMMARY/CONCLUSION**

6 Q. **PLEASE SUMMARIZE YOUR TESTIMONY.**

7 A. Although complex at times, the issues of my testimony revolve around three
8 issues: 1) Level 3's ability to establish a SPOI in a LATA; and 2) the types of
9 traffic that may be combined on interconnection trunks; and 3) the call
10 information that should be required in a call record.

11 Although, Level 3's ability to establish a SPOI is more about compensation for
12 providing interconnection facilities, the FCC contemplated the logistics for
13 interconnecting two networks when it required LECs to provide interconnection.
14 It recognized that each carrier must be able to retain responsibility for the
15 management, control, and performance of its network. The FCC also
16 acknowledges that networks had interconnected prior to the Telecommunications
17 Act of 1996. In support of its recognition of maintaining network reliability and
18 interoperability, and the existence of network interconnections, the FCC
19 acknowledged certain logical methods to interconnect networks such as cross
20 connect points and main distribution frames as technically feasible points of

1 interconnection. Qwest provides such technical feasible points for the purpose of
2 interconnection with Qwest's network. However, Level 3's proposed language
3 attempts to forgo these well established arrangements not for technical reasons,
4 but in an attempt to avoid the cost of interconnection.

5 As to the types of traffic that can be carried on interconnection trunk groups,
6 Qwest has attempted to be responsive to Level 3's desire to combine traffic on
7 trunk groups. Qwest is willing to allow all traffic types, with the exception of
8 switched access traffic, to be carried over LIS trunks. The law is also clear about
9 interexchange traffic and the requirement for Qwest to provide switched access
10 services to IXC's for such interexchange traffic. Because of billing issues, systems
11 issues and Qwest's obligation to provide jointly provided switched access records
12 to other ILECs and CLECs, Qwest requires that switched access traffic be carried
13 over Feature Group trunks. This is entirely consistent with Section 251(g) of the
14 Act which requires that Qwest provide interconnection for the exchange of
15 switched access traffic in the same manner that it provided for such traffic prior to
16 the passage of the Act. Nonetheless, Qwest has attempted to accommodate Level
17 3's desire for network efficiencies by agreeing to let Level 3 combine all of its
18 traffic over Feature Group D trunks. This solution achieves the efficiencies
19 sought by Level 3 while at the same time allowing Qwest to continue to use its
20 existing billing systems and processes. For these reasons, Level 3's proposed
21 combining of traffic on LIS trunks should be rejected.

1 Finally, a call record must include certain fundamental information to create a
2 record for billing purposes. Although there are some technical limitations in some
3 cases that prohibit the identification of the origination of a call, Level 3 attempts
4 to go beyond the fundamental information and create requirements for a call
5 record that may not legitimately be provided. Qwest's definition provides for all
6 of the fundamental information needed in a call record and at the same time
7 provides the flexibility to accept additional information to create a call record
8 which may be used for billing. Level 3 goes beyond what is recognized by the
9 industry and then inappropriately places financial penalties for non-compliance.

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

11 **A. Yes it does.**

CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the foregoing **DIRECT TESTIMONY OF PHILIP LINSE** was served on the 12th day of August, 2005 by first class mail, postage prepaid on the following individuals:

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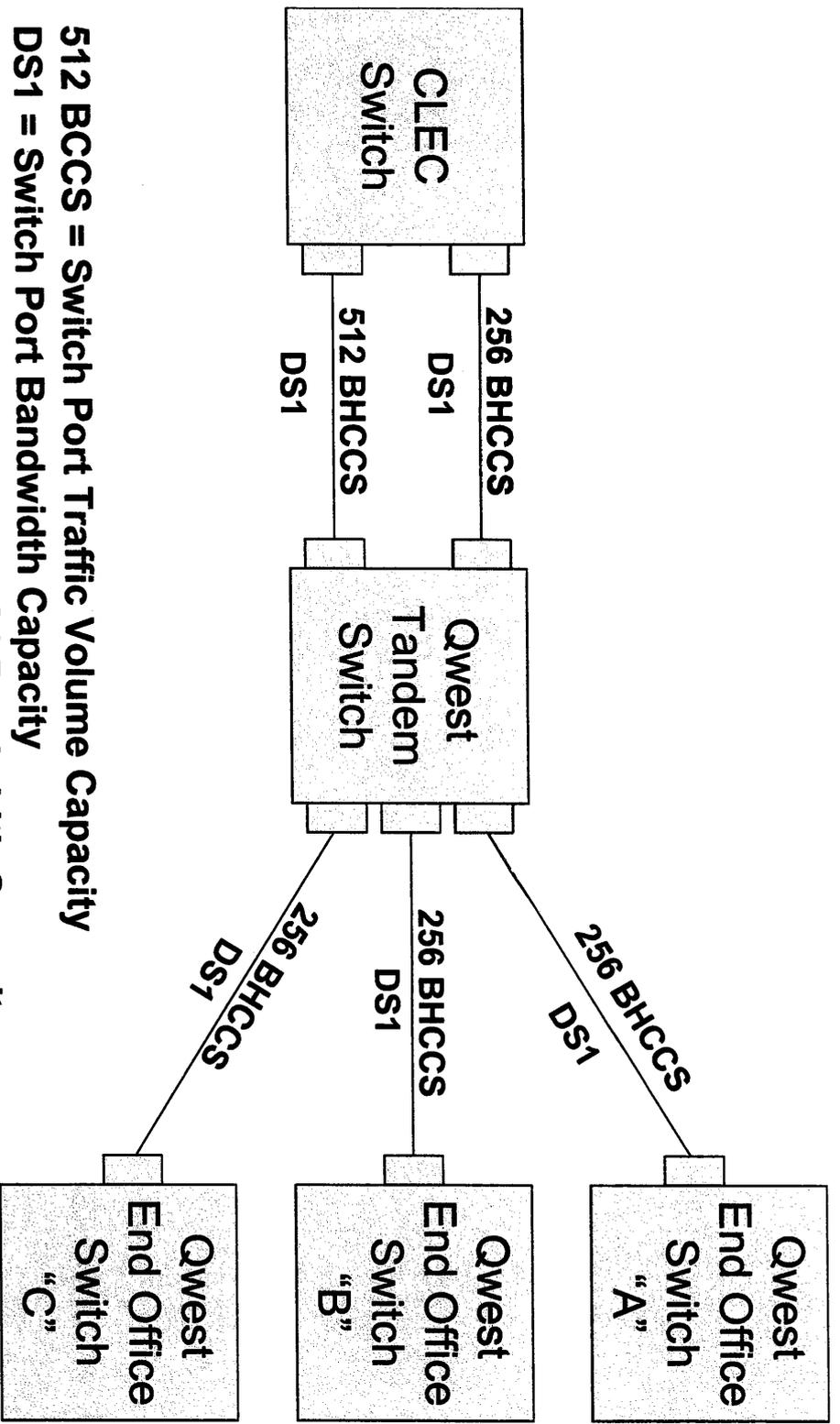
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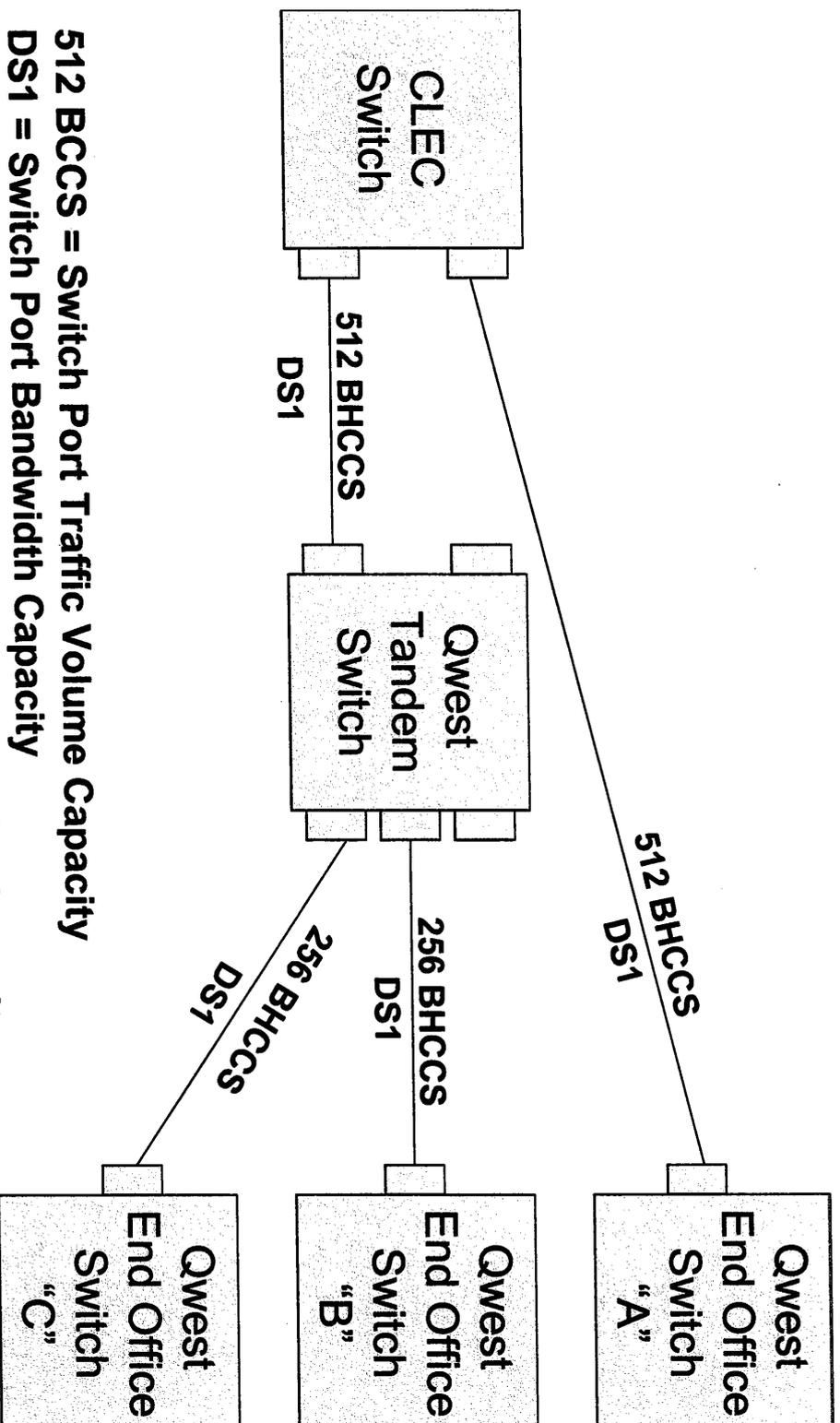
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SPOP Traffic Volume Spread Across All End Offices Is Less Than The Capacity Of A Single Switch Port



512 BHCCS = Switch Port Traffic Volume Capacity
 DS1 = Switch Port Bandwidth Capacity
 512 BHCCS Traffic Volume = DS1 Bandwidth Capacity

SPOP Traffic Volume To End Office "A" Is At Or Exceeds The Capacity Of A Single Switch Port (512 BHCCS Rule)



512 BHCCS = Switch Port Traffic Volume Capacity
DS1 = Switch Port Bandwidth Capacity
512 BHCCS Traffic Volume = DS1 Bandwidth Capacity