

1 **BEFORE THE PUBLIC UTILITY COMMISSION**
2 **OF THE STATE OF OREGON**

3 **ARB 665**

4 In the Matter of Level 3 Communications,
5 LLC's Petition for Arbitration Pursuant to
6 Section 252(b) of the Communications Act of
7 1934, as amended by the Telecommunications
8 Act of 1996, and the Applicable State Laws for
9 Rates, Terms, and Conditions of
10 Interconnection with Qwest Corporation
11

12 **LEVEL 3 COMMUNICATIONS**
13 **CORRECTED OPENING BRIEF**
14

15
16 **October 12, 2006**
17
18
19
20
21
22
23
24
25
26

TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY 3

II. STATEMENT OF FACTS..... 7

 A. Level 3’s Oregon Architecture.....8

 B. Level 3’s ISP Services9

 C. Qwest ISP Service.....11

 D. Level 3’s VoIP Service13

 E. Qwest’s VoIP Service15

III. ARGUMENT 16

 Issue Nos. 3B; 1G; 3C; 416

 A. The Commission Should Adopt Level 3’s Proposal Regarding
 Compensation for ISP-Bound Calls:.....16

 1. Level 3 Has Proposed A Reasonable Compromise Consistent With What
 Other States Have Done..... 17

 2. This Is Not “VNXX” Traffic And It Is Not “Illegal.” 20

 3. It Would Be Grossly Discriminatory To Fail To Approve Level 3’s
 Proposal, Given Qwest’s Own Arrangements For Serving ISPs..... 31

 Issue No. 1633

 B. The Commission Should Adopt Level 3’s Proposal Regarding Intercarrier
 Compensation For VoIP Traffic.33

 Issue Nos. 1A; 2A; 2B; 1835

 C. The Commission Should find that Level 3 is Allowed to Combine all of its
 Traffic Destined to Qwest Customers onto a Single Trunk Group:.....35

 Issue Nos. 1B; 1D; 20; 3045

 D. Interconnection Issues.....45

 1. Issue 1B: Interconnection Rights Pursuant to the Act. 45

 2. Issue 1B: Right to Interconnect at Any Technically Feasible Point. 45

 3. Issue 1B, 1D: Right to TELRIC Pricing. 46

 4. Issue 20: Signaling Parameters for VoIP Traffic..... 46

 5. Issue 30: Single Set of Quad Links..... 47

IV. CONCLUSION..... 48

1 **I. INTRODUCTION AND SUMMARY**

2 This case involves two primary and related issues – intercarrier compensation, and
3 trunking arrangements. More broadly, it deals with the inevitable collision between a century-
4 old regulated telephone industry and innovative new providers, such as Level 3, engendered by
5 the Telecommunications Act of 1996.¹

6 The first main issue is intercarrier compensation for ISP-bound calls. The entire
7 telecommunications industry has been struggling with this issue for nearly a decade, but a fair,
8 industry-wide solution remains elusive. To complicate matters, the Federal Communications
9 Commission (“FCC”) has let this issue lie for more than five years. Its last major
10 pronouncement on the topic was the April 2001 *ISP Remand Order*² which – as subsequent
11 litigation has shown – left many crucial issues unresolved.

12 With the FCC silent, state commissions are on the front lines – in litigation such as this
13 proceeding – attempting to carve out a reasonable middle ground, – – one that permits efficient
14 dial-up access to the Internet for the millions of consumers who depend on it, without unfairly
15 burdening either ILECs or CLECs with the costs associated with that functionality.

16 What do we know that can help sort out this muddle?

- 17 ◦ We know that ISP-bound calls are not traditional, normal telephone traffic. ISPs
18 “use” interstate access but are affirmatively exempted from paying carrier access
19 charges. Calls to ISPs are dialed as local, and perceived as local by end users, but are
20 neither truly local, nor quite long distance.³
- 21 ◦ We know that ISP-bound calls start with individual end users, but these callers can
22 never know definitively where they end. This is because they *have* no normal end
23 point.⁴

24 ¹ The Smithsonian Institution has recognized the Level 3 Network as an important component of the ongoing
25 revolution in communications and information technology. In April 2000, the Smithsonian cited Level 3 as a
26 Computerworld Laureate for its historic achievement in creating a new kind of network infrastructure. The
Smithsonian noted that Level 3 is changing communications at a fundamental level – and “helping to stimulate the
biggest change in communications technology in 100 years.”

² *Intercarrier Compensation for ISP-Bound Traffic*, Order on Remand and Report and Order, 16 FCC Rcd 9151
(2001) (“*ISP Remand Order*”) (subsequent history omitted).

³ *Bell Atlantic v. FCC*, 206 F.3d 1, 5 (D.C. Cir. 2000); *see also ISP Remand Order, passim*.

⁴ *ISP Remand Order, supra*, at ¶¶ 58-59 (“In real time, the web host may request that different pieces of that
webpage, which can be stored on different servers across the Internet, be sent, also in real time, to the user. ... The

- 1 ◦ We know that dial-up remains the only way that millions of consumers nationwide,
2 and hundreds of thousands in Oregon, get Internet access – which is becoming more,
3 not less, important in all of our lives.⁵
- 4 ◦ Finally, we know that dial-up Internet access should be efficient. And the record is
5 clear that the only efficient way to offer dial-up Internet access – the way Level 3
6 does it, and the way Qwest does it – is by means of large, centralized facilities to
7 which dial-up traffic from a wide area is efficiently delivered.

8 Qwest proposes that ISP-bound traffic should incur access charges. Or, Qwest suggests,
9 Level 3 can avoid access charges by abandoning its own network and becoming a retail customer
10 of Qwest.⁶ However, this “solution” would drastically penalize dial-up Internet access providers
11 – and limit, if not completely erase, customer choice of ISPs in certain parts of Oregon.

12 It makes no sense to sometimes apply access charges to ISP-bound traffic and sometimes
13 not, based on idiosyncratic details of an ISP’s technical configuration, or on how a particular
14 physical interconnection arrangement is characterized for billing and ordering purposes. Yet that
15 is, in effect, what Qwest proposes.

16 A recent Ninth Circuit case shows us one way to square this circle. In *Verizon*
17 *California, Inc. v. Peevey*,⁷ the Ninth Circuit Court of Appeals approved California’s
18 compromise approach (which is quite similar to the recent decision in Arizona, and actually
19 more favorable to the ILEC than decisions in Washington). Key elements of the California plan
20 approved by the court include: (a) ISP-bound traffic is rated as local to the end user – which
21 protects end users from toll charges; (b) the originating ILEC must pay (low) FCC-mandated

22 ‘communication’ taking place is between the dial-up customer and the global computer network of web content, e-
23 mail authors, game room participants, databases, or bulletin board contributors.”)

24 ⁵ In 2005, Oregon had 1.42 million households. U.S. Dept. of Commerce, Census Bureau, *2005 American*
25 *Community Survey, Selected Social Characteristics: Oregon*, available on-line at:
26 www.census.gov/acc/www/Area%20Sheets/Area%20Sheet%20OR.doc. About 94.7% of these households have
27 telephone service. FCC, *2005 Statistics of Common Carriers*, Table 5.9. As of year-end 2005, however, there were
28 only about 587,000 residential broadband users. FCC, *High-Speed Services for Internet Access, Status as of*
29 *December 31, 2005* at Table 3. This means that the vast majority of Oregon households – more than 750,000 of
30 them – either have no Internet access at all, or use dial-up.

31 ⁶ Transcript of August 30, 2006 Hearing (Tr II), pp. 54-57 (Qwest admits that under its proposal Level 3 can no
32 longer use its Oregon network as an interconnecting carrier; the only way Level 3 can provide service is as a retail
33 customer of Qwest). This is true regardless of major technological changes in the provision of ISP-dialup service.
34 *Id.* at p. 59. It is also true regardless of the fact that it would be economically inefficient. *Id.* at pp. 61-62.

35 ⁷ *Verizon California, Inc. v. Peevey*, 2006 U.S. App. LEXIS 22742 (9th Cir. 2006).

1 intercarrier compensation rates for ISP-bound calls – which ensures that carriers serving ISPs are
2 fairly compensated for their efforts; and (c) the CLEC is responsible for transporting the traffic
3 to the Internet from a location at or very near the originating switch – which ensures that the
4 originating ILEC incurs the lowest possible level of costs in handling this traffic. This balance
5 struck by the Ninth Circuit ensures continued access to, and choice of, ISPs – while at the same
6 time adequately compensating the carriers for their role in handling the traffic.

7 Level 3 has proposed exactly this solution here in Oregon. The record shows that for
8 nearly 98% of Qwest-to-Level-3 ISP-bound traffic, Level 3 picks up cost responsibility for
9 transporting the traffic out of the Local Calling Area (“LCA”) – by paying for Direct End Office
10 Trunks (“DEOTs”) – literally at the originating switch. Qwest, “on its own nickel,” so to speak,
11 doesn’t have to do anything except originating switching of a locally-dialed call. The transport
12 costs are covered by Level 3. With that split of costs, it is fair and reasonable to apply the FCC’s
13 unitary compensation rate of \$0.0007 per minute to this traffic – a rate this is heavily discounted
14 from the “standard” rate of reciprocal compensation for traditional local voice calls.

15 Level 3’s network in Oregon is *not* a traditional “VNXX” arrangement.⁸ States have
16 differed in their treatment of VNXX. This issue has normally arisen in the context of a CLEC
17 insisting on its right to a single POI per LATA, with the ILEC obliged to bear the costs of
18 delivering traffic from all over the LATA to that single POI. That is, the controversy over
19 VNXX has arisen when CLECs insist that the ILEC absorb 100% of the cost of getting traffic
20 from a dispersed set of end offices to a single, centralized POI. Here Level 3 – the CLEC – is
21 absorbing those transport costs.

22 Approving this solution, based on the specifics of Level 3’s extensive DEOT architecture
23 in Oregon, will also largely solve the two other main issues in this case: intercarrier
24 compensation for VoIP traffic, and combining different “types” of traffic on the same trunk
25

26 ⁸ Level 3/800, Wilson/18 (OPUC has never addressed the question of whether Level 3’s establishment of POIs (as well as payment of transport to nearly every Qwest end office in the state) constitutes proscribed FX or VNXX services in Oregon).

1 groups. As to intercarrier compensation for VoIP traffic, Level 3 proposes that the same solution
2 outlined above for ISP-bound traffic apply to VoIP. Although these two types of traffic are not
3 identical from an engineering or regulatory point of view, they are close enough that treating
4 them in a similar manner makes sense. As to combining different “types” of traffic on trunk
5 groups, the record is quite clear that, Qwest’s objections notwithstanding, there is no legitimate
6 engineering or business reason to forbid combining access and non-access traffic on the same
7 “Local Interconnection Service” (“LIS”) trunks. All other major ILECs have agreed to this
8 approach with Level 3, and there are plain and workable solutions to the various make-weight
9 objections Qwest has raised.⁹

10 The remainder of this brief is structured as follows.

- 11 ◦ Section II, the “Statement of Facts,” summarizes the key record evidence bearing on
12 the disputed issues in this case, including the extensive array of “secondary POIs”
13 that Level 3 has established by paying for DEOTs to nearly every Qwest local calling
14 area in Oregon.
- 15 ◦ Section III addresses the fair resolution of the issue of compensation for ISP-bound
16 calls, urging that Oregon follow the very recent guidance from the Ninth Circuit.
17 Where the CLEC pays for out-of-LCA transport – as both Qwest and Level 3 do in
18 their operations serving mass-market ISPs – then requiring the ILEC to pay the
19 FCC’s very modest \$0.0007 per minute rate strikes a fair balance of cost and
20 operational responsibilities for this unique category of traffic.
- 21 ◦ Section IV explains why it is fair to extend this same approach to the latest class of
22 jurisdictionally ambiguous traffic – Voice over Internet Protocol. This would
23 simultaneously permit the development of technologically innovative services while
24 protecting the ILEC from any substantial financial exposure.
- 25 ◦ Section V explains why it makes no possible sense to require separate trunking for
26 different “types” of traffic. With DEOT-routed traffic there is no possible basis for
Qwest’s main concern – being able to send accurate billing information to 3rd party
LECs. This is because DEOTs go to Qwest switches, not 3rd party switches. If need
be, periodic traffic studies on the DEOTs can determine what portion of the traffic is
subject to access and what portion is subject to the \$0.0007 rate.
- Finally, Section VI deals with the a number of specific aspects of Qwest’s proposed
contract language that would interfere with the efficiency of Level 3’s
interconnection. Qwest’s proposals have no basis either in the law or in concerns of
technical feasibility and must be rejected.

⁹ Level 3/700, Greene/14-16.

1 **II. STATEMENT OF FACTS**

2 Level 3 is one of the largest providers of wholesale dial-up services to ISPs in North
3 America, and is the primary provider of broadband Internet connectivity for millions of
4 broadband subscribers through its cable and DSL partners.¹⁰ In addition, Level 3 provides long-
5 haul carriage and local connectivity for a large number of providers of Voice-over-Internet-
6 Protocol (“VoIP”) services.¹¹

7 Broadband connectivity via DSL or cable modem service is growing in popularity.
8 However, both currently and for the foreseeable future, a substantial fraction of Oregon
9 households—and millions of Oregon citizens—will obtain their Internet access via dial-up
10 connections. Specifically, while there are approximately 1.34 million households in Oregon with
11 telephone service, there are only about 587,000 residential broadband subscribers. This means
12 that more than 750,000 Oregon households either have no Internet access at all, or rely on dial-
13 up.¹² For this reason, the pricing and interconnection policies relevant to dial-up ISP traffic are
14 critical to the ability of Oregonians to obtain the social, educational and economic benefits of
15 Internet access.

16 To provide these services, Level 3 has built an international, state-of-the-art, all-IP
17 network. Level 3’s fiber-optic backbone connects 77 markets in the U.S. and 23 markets in
18 Europe, with over 33,000-mile broadband fiber-optic network spanning the United States and
19 Europe (including the trans-Atlantic Yellow undersea cable system). Riding on this fiber
20 backbone, Level 3 maintains a large IP network composed of high-speed links and core routers.

21
22

¹⁰ Level 3/700, Greene/4.

23 ¹¹ Level 3/300, Ducloo/33-34

24 ¹² As noted above, in 2005, Oregon had 1.42 million households. U.S. Dept. of Commerce, Census Bureau, 2005
25 *American Community Survey, Selected Social Characteristics: Oregon*, available on-line at:
26 www.census.gov/acs/www/Area%20Sheets/Area%20Sheet%20OR.doc. Approximately 94.7% of those
households, or 1.34 million, have some telephone service. FCC, *Statistics of Common Carriers* (2005 edition) at
Table 5.9. As of year-end 2005, however, there were only about 587,000 residential broadband users. FCC, *High-
Speed Services for Internet Access, Status as of December 31, 2005* at Table 3. This means that the vast majority of
Oregon households with telephone service – more than 750,000 of them – either have no Internet access at all, or
use dial-up.

1 The Level 3 IP backbone connects to carriers worldwide and thus to the public Internet via
2 hundreds of peering arrangements at Level 3 Gateways, located in 29 metropolitan areas.¹³

3 Level 3's network was designed as a high-speed packet network for carrying IP traffic.
4 Level 3's network was not designed to carry voice traffic, and indeed is able to do so only when
5 the voice traffic is converted to IP format. Thus, Level 3's architecture differs from the PSTN
6 which was designed for voice traffic, and which can carry IP traffic only when the traffic is
7 converted to TDM.

8 Level 3's ISP customers – who provide the link between the Internet and end users
9 connected to the traditional PSTN – must be able to receive dial-up modem traffic from
10 customers who access the Internet without a broadband connection. Indeed, 90% of the traffic
11 Level 3 exchanges with Qwest comes from end users reaching the Internet via dial-up
12 connections.¹⁴ In addition, Level 3's VoIP customers must be able to send traffic to and receive
13 traffic from the PSTN. Thus, in addition to transporting data traffic in IP format, Level 3 must
14 provide translation services between the PSTN and its IP network.¹⁵

15 **A. Level 3's Oregon Architecture**

16 Level 3 exchanges traffic with Qwest at numerous points of interconnection ("POIs")
17 located throughout the state.

18 A POI is the location where two carriers connect their networks for the purpose of
19 exchanging traffic. Each party pays for the network resources on its side of the POI. This allows
20 each party to provide service according to the technical requirements of its respective networks.
21 A POI can be comprised of various types of leased or owned facilities, including a fiber meet
22 point, a collocation arrangement or at other mutually agreed-to points. The POI also defines the
23 point at which each company takes control of its traffic from a financial point of view.¹⁶

24
25

¹³ Level 3/300, Ducloo/37.

26 ¹⁴ Transcript of August 29, 2006 Hearing (Tr I) p. 79.

¹⁵ Level 3/300, Ducloo/38-39.

¹⁶ Level 3/800, Wilson/4.

1 Level 3 has established a large number of POIs in Oregon which can be broken down into
2 two categories. Primary POIs have been constructed in 12 cities in Oregon.¹⁷ Many of these are
3 located in Qwest tandem offices. Those that are not are served by special access trunks that
4 Level 3 has leased from Qwest or from other providers. Level 3 pays for all transport to and from
5 these POIs on the Level 3 side.¹⁸ For example, Portland is one of the locations in Oregon where
6 Level 3 maintains a Primary POI. In Portland Level 3 collocates multiplexing equipment at the
7 Qwest tandem office, and transports its traffic from that point.

8 In addition, in order to avoid putting pressure on Qwest's tandems, and to improve the
9 overall efficiency of traffic routing, in those end offices where the traffic from Qwest customers
10 to Level 3 reaches a certain level,¹⁹ Level 3 has established what it refers to as "Secondary
11 POIs." At these Secondary POIs, Level 3 pays Qwest for Direct End Office Trunks ("DEOTs")
12 from the Qwest End Office back to a Primary POI. These DEOTs are used to transport Qwest-
13 originated traffic from the Local Calling Area ("LCA") served by the Qwest End office back to
14 the Level 3 Primary POI, which will often be located in a different LCA. Thus, this traffic is
15 transported out of the local calling area at Level 3's expense. It never even hits Qwest's tandem.
16 Qwest calls this trunking Direct Trunked Transport ("DTT") and that is how Level 3 purchases it
17 from Qwest.²⁰

18 Level 3 Exhibit 701 provides a graphic illustration of Level 3's Primary and Secondary
19 POI architecture in Qwest territory in Oregon.

20 **B. Level 3's ISP Services**

21 Today, virtually all ISPs outsource a significant portion of their retail functionalities to
22 providers like Level 3. Indeed, Level 3 serves the top 10 largest ISPs.²¹

25 ¹⁷ Level 3/719, Greene/2.

26 ¹⁸ Level 3/800, Wilson/4.

¹⁹ See footnote 110, *infra*.

²⁰ Level 3/800, Wilson/5.

²¹ Tr. I at pp. 61-62.

1 Level 3 markets its dial-up Internet services to ISP customers under the product name
2 “(3)Connect Managed Modem Product” (“Managed Modem”). ISPs that purchase this product
3 receive a bundle of services including: (a) Direct Inward Dial (“DID”) Service in each LCA
4 where its customers reside; (b) Transport from the LCA to the Level 3 Network; (c) Conversion
5 of the Time Division Multiplex Protocol (“TDM”) based modem connection to IP; (c)
6 Authentication Services; (d) Operations Support; and (e) Access to the Internet.²² Level 3
7 provides these ISPs with phone numbers local to those LCAs where the ISPs’ end-user
8 subscribers reside, to allow them to make local calls to the ISPs.²³ Neither Level 3 nor its ISP
9 customers impose any sort of toll or long distance charges on the end-users.²⁴ Indeed, it is
10 undisputed in this case that per-minute metering of Internet access is completely unacceptable in
11 the consumer marketplace.²⁵

12 The routing of an ISP-bound call initiated by a Qwest local service customer is illustrated
13 in Level 3 Exhibits 703 and 719. If the customer resides in an LCA in which Level 3 maintains a
14 Primary POI, the call is directed by the Qwest switch serving the customer to Level 3’s
15 collocated equipment and transported on Level 3’s network from the LCA. If the customer
16 resides in an LCA where Level 3 maintains a Secondary POI, the call is directed by the Qwest
17 switch to a DEOT paid for by Level 3, and transported by Level 3 from the LCA to a Level 3
18 Primary POI. The call is then routed over Level 3’s network to the Level 3 Soft Switch platform
19 and Media Gateways in Seattle.²⁶ Here, the soft switch communicates with the Qwest network
20 via Session Initiation Protocol (“SIP”), and signals to the Media Gateway to accept a call on a
21 particular path.²⁷ The media gateway performs the protocol conversion from TDM to IP.²⁸

22 ²² Level 3/700, Greene/7-8.

23 ²³ None of the ISPs served by Level 3 in Oregon maintain modem banks within the local calling areas where their
customers are located. Tr. I at p. 80. Most large ISPs have centralized their servers, either at their headquarters, or
near one of the coasts. Tr. I at p. 60.

24 ²⁴ Level 3/700, Greene/8.

25 ²⁵ Tr. II at p. 61; Level3/700, Greene/8.

26 ²⁶ Level 3/700, Greene/10. This Media Gateway in Seattle has vast capacity and serves not only Oregon and
Washington, but Idaho and parts of Montana as well. Tr. I at p. 82.

27 ²⁷ Tr. I at pp. 30-31.

28 ²⁸ Tr. I at p. 35.

1 This is a very different network and routing architecture than applies to calls involved in
2 what has become known as “VNXX” routing. VNXX stands for “Virtual NXX,” and the term
3 came into use to describe situation where, by assigning numbers associated with one LCA to
4 customers located in another LCA, a CLEC with few or no transmission facilities in a LATA
5 could create a LATA-wide “virtual presence” for its customers. In a typical VNXX
6 arrangement, the ILEC is both financially and operationally responsible for delivering all traffic
7 from around a LATA to a single CLEC POI.

8 Relevant to this case, Level 3’s arrangements normally do not even resemble VNXX; the
9 only exception is those few LCAs in Oregon where traffic volumes are so low that Level 3 does
10 not maintain either a Primary or Secondary POI. In those LCAs, an end user customer of, for
11 example, Earthlink, an ISP served by Level 3, could call Earthlink using a local number.
12 Because Level 3 does not maintain either a Primary or Secondary POI in the LCA, Qwest would
13 be required to transport the call out of the LCA to a POI with Level 3.²⁹ ILECs such as Qwest
14 have opposed CLECs employing such routing, arguing that it unfairly imposes upon them the
15 responsibility to transport the call outside of the LCA without payment. Level 3 and other
16 CLECs have pointed out that the practice imposes no additional costs beyond those that would
17 be imposed by other local traffic, given the ILECs’ responsibility to transport ILEC originated
18 traffic to the CLEC POI at its own costs.³⁰

19 C. Qwest ISP Service

20 Putting aside Qwest’s position as the dominant provider of traditional, TDM-based voice
21 services in Oregon, Qwest is also one of Level 3’s primary competitors in Oregon for the
22 business of ISP customers seeking connectivity to the PSTN.³¹ Through its affiliate, QCC,
23 Qwest offers its ISP customers a product called Wholesale Dial. Wholesale Dial is the
24

25 ²⁹ Level 3/300, Ducloo/50-51.

26 ³⁰ Level 3, 300, Ducloo/50-51. In this case, given the small volume of traffic involving end offices where Level 3 has neither a Primary nor Secondary POI, Level 3 submits that it would be appropriate to treat that traffic on a bill-and-keep basis. These few, insignificant exceptional cases are not separately addressed in this brief.

³¹ Level 3/700, Greene/4.

1 functional equivalent of Level 3's Managed Modem product. Significantly, the network
2 architecture by which Qwest serves its ISP customers is functionally and technically identical to
3 Level 3's.³²

4 As is the case with Level 3's Managed Modem product, when a Qwest ISP customer
5 purchases Wholesale Dial, Qwest provides the customer with phone numbers local to the LCAs
6 in which the ISP customers reside – even though the ISP has no equipment or other physical
7 presence there – so that those customers can make a local call to their ISPs. Indeed, neither QCC
8 nor its ISP customers maintain equipment (modems, servers, media gateways) in all of those
9 LCAs.³³ On the contrary, like Level 3, QCC maintains centralized Media Gateway equipment—

10 **Begin Confidential*****End**

11 **Confidential.**³⁴ QCC connects to these distant LCAs by connecting ISDN PRI trunks to
12 interoffice transport connections.³⁵ Qwest claims that using PRIs (instead of the DEOTs Level 3
13 uses) provides a “local presence” that DEOTs do not provide, sufficient to treat the ISP-bound
14 calls as local rather than “long distance”—which is the categorization Qwest seeks to apply to
15 Level 3's DEOT architecture.³⁶

16 In fact, the PRIs used by Qwest to provide local connectivity to ISP customers are
17 technically and functionally identical to the DEOTs used by Level 3 to provide local
18 connectivity.³⁷ Both PRIs and DEOTs provide basic connectivity or capacity from one office to
19 another office.³⁸ Both types of trunk groups are sized to meet the traffic requirements that the
20 company estimates are necessary for good service. Both PRIs and DEOTs connect to end office
21 switching functionality so that ISP subscribers can call a local number and get connected to the
22 Internet through the ISP.³⁹ And, both DEOTs and PRIs use trunk ports on the end office switch

23 ³² Level 3/800, Wilson/6.

24 ³³ Level 3/716, Greene/24, and Tr. II at p. 32.

25 ³⁴ Level 3/717, Greene/3.

26 ³⁵ Level 3/800, Wilson/6.

³⁶ Level 3/700, Greene/26.

³⁷ Tr. II at p. 40.

³⁸ Tr. II at pp. 33, 36-38 (QCC PRIs support connections to multiple ISPs).

³⁹ Level 3/800, Wilson/9.

1 as a physical means of obtaining connectivity. The trunk ports for DEOTs and PRIs are
2 generally provisioned on the same type of trunk port “cards”—all that is required to distinguish
3 them is slightly different software settings. While PRI trunks use ISDN PRI protocol, and
4 DEOT trunks use SS7 protocol, ISDN PRI protocol is based on SS7 protocol and both provide
5 basically the same functions.⁴⁰

6 **D. Level 3’s VoIP Service**

7 To the end-user customer, VoIP service, is, increasingly, indistinguishable from a typical
8 phone call. VoIP calls can be initiated from a handset that looks and feels like a typical
9 telephone, and the quality of the voice signal is usually identical to a typical phone call. But
10 from a technical and physical standpoint, VoIP is dramatically different.

11 The PSTN is a circuit based network that employs an analog protocol called Time
12 Division Multiplexing (TDM) to transmit voice messages. When one customer calls another
13 customer using the PSTN, an actual circuit (physical connection) must be established between
14 the two callers, and that circuit remains in place for the duration of the call. Thus when such a
15 call is made, each party’s loop is dedicated to that communication for the duration of the call, as
16 are portions of the switches and interoffice trunks and other facilities through which the call is
17 routed.⁴¹ VoIP, on the other hand does not require a dedicated physical circuit. Rather, in a
18 VoIP call, the voice signal is broken down into digital packets in a format known as Internet
19 Protocol, or “IP,” and instead of passing over a single circuit, each packet is capable of
20 independently traveling a different route than the other packets. Once the packets are created,
21 they are individually forwarded onto the Internet by means of routers. A party initiating or
22 receiving a call in VoIP format will require special IP customer equipment and a broadband
23 connection.⁴²

24
25 ⁴⁰ Level 3/800, Wilson/7-8.

26 ⁴¹ Qwest/28, Brotherson/33.

⁴² Qwest/28, Brotherson/34; Level 3/300, Ducloo/31-33.

1 Level 3 provides both wholesale and retail VoIP services.⁴³ The service that Level 3
2 provides to its VoIP customers includes translation, or protocol conversion, that allows
3 communications between end users of the PSTN and the Internet.⁴⁴ VoIP requires specialized
4 customer premises equipment (CPE). Standard touch tone or dial pulse phones will not work on
5 a VoIP network unless they are connected to a computer or other device that can handle VoIP
6 format. Special phones called SIP phones can be used for VoIP. These phones have small
7 computers built into them that packetize the voice signal and generate SIP messages.⁴⁵
8 Computers with headsets and microphones can also be used for VoIP.⁴⁶ These SIP or computer
9 phones can be plugged into any broadband connection to receive VoIP service, and thus the user
10 can send and receive calls from any location with a broadband connection.⁴⁷ At present, the
11 geographic location of a VoIP user is indeterminate.⁴⁸

12 Confidential Exhibits 704 and 705, respectively, describe in detail the call path of an IP
13 to PSTN, and PSTN to IP VoIP call on Level 3's network. At a very high level, in the case of an
14 IP-PSTN call, the VoIP end user will use a broadband connection to access a VoIP feature
15 server. Level 3's VoIP network converts the IP-format dialing data into SS7 signaling and
16 converts the IP format voice signals into PSTN-format TDM signals. For calls to Qwest in
17 Oregon, these IP-based signals are all routed to the Level 3 Softswitch and Media Gateway in
18 Seattle⁴⁹ which sets up a normal TDM call with Qwest's network. The outbound call is handed
19 off in Oregon at the Primary or Secondary POI nearest the Qwest end user receiving the call.⁵⁰
20 The Qwest switch then sends the call on to the Qwest end user in precisely the same manner as it
21 would any other voice traffic.⁵¹

22 _____
23 ⁴³ Tr. I at p. 43.

24 ⁴⁴ Level 3/300, Ducloo/33.

25 ⁴⁵ Level 3/300, Ducloo/35.

26 ⁴⁶ *Id.*

⁴⁷ Level 3/300, Ducloo/36.

⁴⁸ *Id.*

⁴⁹ The same Media Gateway as performs the protocol conversions for Level 3's ISP-bound traffic. See Level 3/700, Greene/10-12.

⁵⁰ Level 3/300, Ducloo, 39.

⁵¹ Level 3/300, Ducloo/39.

1 In the example of a PSTN-IP call, the process is simply reversed. Qwest initiates the call
2 in TDM, and routes the TDM signal to Level 3 at the POI nearest the Qwest end user. Level 3
3 then performs the same protocol conversion in reverse and initiates the VoIP session. Additional
4 explanations of the call paths of these VoIP calls both initiated from and terminating to Level 3
5 customers in Oregon are shown in Level 3 Exhibits 709, 710 and 711.⁵²

6 Level 3 employs the same interconnection network architecture to carry both VoIP and
7 ISP-bound traffic. Therefore, when an end user served by a Level 3 VoIP customer makes a call
8 to a Qwest “regular” TDM end user, Level 3 delivers the call to Qwest in TDM format at a
9 Primary or Secondary POI in the terminating end user’s LCA.

10 **E. Qwest’s VoIP Service**

11 Qwest offers VoIP services to both residential and business customers in Oregon (again,
12 through its affiliate, QCC) with its Qwest OneFlex product.⁵³ In addition to “unlimited local
13 calls and calls to other OneFlex users (Business and Residential)”⁵⁴ OneFlex customers can
14 purchase up to five “Virtual Numbers” described as follows:

15 Virtual numbers are alias phone numbers that can be associated with your
16 OneFlex phone number. Your friends and family can dial your Virtual
17 phone number and avoid incurring long-distance charges. For example if
18 you live in Denver and your primary # is a 303.xxx.xxxx and your family
19 lives in Omaha, your family has to call long-distance. With OneFlex, you
20 can get a virtual phone number assigned to your account with an Omaha
21 area code, so your family doesn’t have to pay long distance charges.⁵⁵

22 **III.**

23
24
25 ⁵² Level 3/709-711, Greene.

26 ⁵³ Tr. II at pp. 86-87; Level 3 Cross Exhibit 112.

⁵⁴ Level 3 Cross Exhibit 112, p.1.

⁵⁵ Id., at 10.

1 ARGUMENT

2 Issue Nos. 3B; 1G; 3C; 4

3 A. The Commission Should Adopt Level 3's Proposal Regarding
4 Compensation for ISP-Bound Calls:

5 **The FCC has ruled that ISP-bound calls from local telephone customers to**
6 **the Internet are jurisdictionally interstate and are subject to a federally-**
7 **mandated compensation of \$0.0007 per minute. Qwest takes the position**
8 **that the FCC's mandated rate does not apply to VNXX-routed traffic. Level**
9 **3 disagrees; the terms of the ISP Remand Order encompass all ISP-bound**
10 **traffic, including VNXX-routed traffic. However, there is no need to resolve**
11 **that debate in this case, given that Level 3's offer to maintain its extensive**
12 **network of Primary and Secondary POIs in the State ensures that all ISP-**
13 **bound traffic exchange occurs on a local basis. In short, Level 3's network is**
14 **built out to virtually every Qwest Local Calling Area in the State, allowing**
15 **Level 3 to pick up all ISP-bound traffic within the Qwest LCAs on Level 3's**
16 **"own nickel." Under these circumstances, Level 3's compromise position –**
17 **one very similar to the arrangement recently approved by the 9th Circuit – is**
18 **to apply the FCC's compensation rate to all ISP-bound traffic where Level 3**
19 **picks up the traffic at a Primary or Secondary POI. This compromise will**
20 **ensure that (a) Level 3 is fairly compensated for completing ISP-bound calls**
21 **initiated by Qwest's local customers; (b) Qwest will not be required to**
22 **transport ISP-Bound calls beyond LCA boundaries; and, (c) Oregon dial-up**
23 **Internet access services remain available free of onerous per-minute long**
24 **distance charges.**

17 The main issue in this case is intercarrier compensation for ISP-bound calls, an issue that
18 has confounded the industry for nearly a decade. The FCC has not spoken definitively on this
19 issue for more than five years; its last major pronouncement was the *ISP Remand Order* from
20 April 2001.⁵⁶ As a result of the FCC's relative silence on this question, state commissions are on
21 the front lines – in litigation such as this proceeding – trying to find a reasonable middle ground.

22 On the one hand, CLECs typically argue that because ISP-bound calls are dialed, routed
23 and billed to end users like traditional "local" calls, the ILEC's obligation with respect to them

25 ⁵⁶ *ISP Remand Order, supra*. Although the FCC's reasoning was rejected in some potentially significant ways, the
26 federal court reviewing the *ISP Remand Order* allowed it to remain in effect while the FCC further considered the
issues. See *WorldCom v. FCC*, 288 F.3d 429 (D.C. Cir. 2002). In addition, the FCC modified its rules for
intercarrier compensation for ISP-bound traffic to expand the realm of compensable traffic in the *Core Forbearance*
Order, 19 FCC Rcd 20179 (2004).

1 should mirror traditional local traffic in every way – including the ILEC’s obligation to deliver
2 traffic, free of charge, to a centrally located CLEC POI and to pay intercarrier compensation to
3 the CLEC for such traffic. On the other hand, ILECs emphasize the fact that while we know
4 were an ISP-bound call begins – with the end user – we know it doesn’t end in the same LCA
5 where it starts. So, since the traffic can’t really be considered traditional “local” traffic, the
6 ILECs argue, it should be subject to access charges.

7 **1. Level 3 Has Proposed A Reasonable Compromise**
8 **Consistent With What Other States Have Done.**

9 In this case, Level 3 has proposed a sensible, middle-ground alternative to the positions
10 outlined above. Under this approach, ISP-bound traffic will be rated to the end user as local.
11 But Level 3 – not Qwest – will bear financial responsibility for getting the traffic from the
12 originating LCA to the ISP that connects the end user to the Internet. Where Level 3 takes on
13 this responsibility, the traffic will be subject to normal “local” intercarrier compensation, at the
14 FCC’s low rate of \$0.0007 per minute. On the other hand, for ISP-bound traffic that Level 3
15 does *not* pick up at the originating LCA, Level 3 will exchange traffic on a bill and keep
16 basis.^{57 58}

17 This basic approach reflected in Level 3’s compromise proposal has recently been
18 approved both by the Arizona Corporation Commission (ACC) in an arbitration between Level 3
19
20

21 ⁵⁷ To highlight the reasonableness of Level 3’s contract proposals, consider that that several Circuit Courts of
22 Appeal have unambiguously required Single POI per LATA, even where ISP-bound traffic is involved. *See, e.g.*
23 *TSR Wireless, LLC v. U.S. West Commun’s, Inc.*, 15 FCC Rcd 11166, ¶ 31 (2000); *Virginia Arbitration Order*, 17
24 FCC Rcd 27039 (2002); *Southwestern Bell Tel. Co. v. Publ. Utils. Comm’n of Tex.*, 348 F.3d 482, 484 (5th Cir.
25 2003); *MCIMetro Access Transmission Services, Inc. v. BellSouth Telecommun’s Inc.*, 352 F.3d 872, 876-881 (4th
26 Cir. 2003) (Single POI required for all traffic routed from BellSouth to a single MCI switch serving the entire North
Carolina LATA; court rejected NCUC requirement that MCI pay BST’s transport costs, even where calls carried
hundreds of miles, as contrary to FCC Rule 51.703(b)); *Mountain Commun’s, Inc. v. FCC*, 355 F.3d 644 (D.C. Cir.
2004)

⁵⁸ This is far more generous to Qwest than the agreement Level 3 made with SBC, Verizon and Bell South in 34
states. It is generous because in those agreements Level 3 is not required to pay to pick up traffic from every single
switch, but was sill compensated albeit at a slightly lower rate for ISP-bound traffic. Tr 1, p. 72.

1 and Qwest,⁵⁹ and by the Ninth Circuit, which approved the California Public Utilities
2 Commission’s approach to this issue.⁶⁰ Level 3 urges the OPUC to adopt this approach as well.

3 In *Verizon California v. Peevey*, the California PUC had imposed this solution over the
4 objection of both the ILEC (Verizon California) and the affected CLEC (PacWest). Specifically,
5 under the California PUC’s compromise approach, end users are billed for locally-dialed calls to
6 ISPs as local calls,⁶¹ and, in accordance with that basic economic arrangement, the ILEC pays
7 the FCC’s low intercarrier compensation rate to the CLEC for such calls.⁶² However, while the
8 California PUC recognized – and did not seek to prevent – the efficiency of allowing the CLEC
9 to have a single physical POI for an entire LATA, it did not view it to be fair to require the ILEC
10 to bear the full cost of getting all that ISP-bound traffic to the central POI. Therefore, to the
11 extent that the ILEC carries traffic beyond the boundaries of the affected local calling area, the
12 CLEC must pay the ILEC cost-based (TELRIC) rates for the “excess” transport.⁶³

13 The Ninth Circuit recognized – – and approved – – the hybrid nature of this solution.
14 That is, if the traffic involved were purely and unequivocally “local” in nature (in some
15 traditional sense), then the FCC’s normal rule against an ILEC imposing traffic origination
16 charges on a CLEC would have barred the California PUC’s arrangement. However, the
17 essentially *sui generis* nature of ISP-bound traffic – which led the FCC to re-think its basic
18 intercarrier compensation rules in the *ISP Remand Order* – made this arrangement permissible
19 for this type of traffic.⁶⁴

20 The ACC recently approved a very similar arrangement in an arbitration between Level 3
21 and Qwest. Specifically, in Arizona, ISP-bound traffic is treated as “local” for purposes of end
22 user billing and intercarrier compensation as long as Level 3 picks up the traffic within the

23 ⁵⁹ In the Matter of the Petition of Level 3 Communications, LLC for Arbitration of an Interconnection Agreement
24 with Qwest Corporation Pursuant to Section 252(b) of the Telecommunication Action of 1996, Docket No. T-
0365A-05-0350, T-01051B-05-0350 (hereinafter, Level 3 Arizona Arbitration).

25 ⁶⁰ 2006 U.S. App. LEXIS 22742 (9th Cir. 2006).

26 ⁶¹ *Id.* at [*32] – [*33].

⁶² *Id.* at [*34] – [*36].

⁶³ *Id.* at [*37] – [*39].

⁶⁴ *Id.* at [*39] – [*42].

1 originating LCA – either at the originating end office itself, or, if the relevant tandem switch is
2 located in the LCA, at the tandem. Where Level 3 pays for DEOTs to a particular end office,
3 Qwest isn't subjected to the cost of hauling the traffic outside the LCA, so there is no logical
4 reason to impose any additional charges on Level 3 – and certainly no justification for imposing
5 access charges.⁶⁵ Notably, Arizona approved this arrangement in order to facilitate fair and
6 efficient dial-up access to the Internet, even though it shares some of Oregon's concerns about
7 VNXX-type arrangements as a general matter.⁶⁶

8 This is precisely the arrangement that Level 3 has proposed in this case. As the record
9 shows, with its extensive network of Primary and Secondary POIs, in the overwhelming majority
10 of cases, Level 3 is already fully responsible for the costs of transporting ISP-bound calls from
11 the originating LCA to the Internet. In those cases it makes no sense to impose high, non-cost-
12 based access charges on this traffic.

13 In this regard, Level 3's proposal here is more favorable to the ILEC than the California
14 Plan approved by the 9th Circuit in *Peevey*. There, the ILEC was responsible for all transport of
15 ISP-bound traffic within the bounds of an LCA – which, under California PUC rules, extends for
16 12 miles beyond the physical location of the originating switch. By contrast, here Level 3, by
17 establishing a Secondary POI at an end office switch by means of a DEOT, takes on cost
18 responsibility for transporting ISP-bound traffic from the originating switch itself.

19 Level 3's proposal here is also much more favorable to the ILEC than the arrangement
20 approved by the Washington state regulators. Washington regulators take the view that all
21 locally-dialed ISP-bound traffic should be subject to compensation under the FCC's regime
22 established in the *ISP Remand Order* – including traffic that is hauled by the ILEC to a centrally
23 located CLEC POI.⁶⁷ In Washington, therefore, Level 3 would have no obligation to establish
24
25

26 ⁶⁵ See Level 3 Arbitration, Decision No. 68817.

⁶⁶ See discussion in Section III.A.2, *infra*.

⁶⁷ Level v. Qwest, Washington Utilities and Transportation Commission, UT 053039, Order No. 06.

1 more than one Primary POI, or any Secondary POIs at all (although it might do so for its own
2 network management reasons).

3 As a result, in addition to meeting with the approval of the 9th Circuit, as shown by the
4 decision in *Peevey*, Level 3's proposal is clearly reasonable. It strikes a fair balance between the
5 interests of consumers in being able to call ISPs on a "local" basis; the interest of Level 3 in
6 being compensated (at the low FCC rate of \$0.0007 per minute) for its effort in delivering dial-
7 up traffic to ISPs; and the interest of Qwest in not having to haul large amounts of traffic outside
8 of the local calling area in which it originates. As a pure "policy" matter, therefore, the OPUC
9 should adopt Level 3's proposal as a fair compromise solution to this perennial controversy.⁶⁸

10 **2. This Is Not "VNXX" Traffic And It Is Not "Illegal."**

11 Qwest has taken the position throughout this litigation that (a) the Commission has
12 deemed so-called VNXX traffic to be illegal, and that (b) Level 3's proposed arrangement
13 amounts to illegal VNXX.⁶⁹ Qwest is wrong.

14 **a. VNXX Arrangements.**

15 VNXX arrangements, as traditionally analyzed, are, in effect, a substitute for a traditional
16 FX line. In an FX arrangement an end user in one calling area buys a private line into another
17 calling area and receives dial tone from that distant area. This means that callers in the distant
18 area can dial the FX user as a local call, since the FX user is getting dial tone from that same
19 local switch.⁷⁰ From one perspective, customers in the distant calling area get to make "toll
20 calls" to the FX user for free, but that's because the FX user – by virtue of the private line
21 connection – is paying for the "long distance" transport.

22
23
24 ⁶⁸ The position adopted by the Washington regulators shows that, in this proceeding, Level 3 is willing to accept a
25 compromise that actually gives it fewer interconnection rights than those to which it would be entitled. Level 3 does
26 not waive its interconnection rights, however, and reserves the right to pursue them if its compromise solution is
rejected.

⁶⁹ Qwest/28, Brotherson/22-25.

⁷⁰ From this perspective, the FX user can be viewed as in fact *being* a customer of the distant local calling area, but
simply having a very, very long "loop" – the private line from the distant switch to the FX user's premises.

1 VNXX arrangements, although not identical, can be viewed as broadly similar. A CLEC
2 with a centrally located switch serving a large area can assign telephone numbers associated with
3 one local calling area to a customer physically located in another local calling area. In the
4 Commission’s words, “a customer physically located in Portland might order a phone number
5 from a CLEC with a Salem NXX rate center code. Calls between that Portland customer’s
6 phone and other Salem area customers would be treated as if they were local calls ...”⁷¹ This
7 arrangement is possible because NXX codes do not in any real sense “reside” in particular
8 geographic areas; they “reside” in network switches. For this reason, where a CLEC uses a
9 single switching device to serve a large area, it makes no difference, as a technical matter,
10 whether the numbers assigned to a particular customer “match” the geographical location of that
11 customer. As a purely technical matter, any customer served by a given switch can be easily
12 assigned a telephone number from any NXX code handled by that switch.⁷²

13 Where a customer located in one area is assigned a telephone number with an NXX code
14 from another area, end users from the second area can call the VNXX customer’s telephone
15 number as a local call – just like in an FX arrangement. However, under normal FCC rules, the
16 ILEC is responsible for getting traffic from its network to the CLEC’s network at no charge. So,
17 whereas in a traditional FX arrangement the end user getting the FX service pays for transport
18 beyond the local calling area where his FX number is “located,” with VNXX the cost of
19 transport is borne by the originating ILEC. As Level 3 understands the applicable law, discussed
20 briefly below, this result is completely in accord with the FCC’s rules and expectations. It is,
21 however, a cause for concern among ILECs.

22
23
24
25
26 ⁷¹ Investigation into the use of Virtual NPA/NXX Calling Patterns, ORDER, UM-1058 (September 7, 2004).

⁷² See *id.* at 1 (CLECs “wishing to provide local service in multiple exchanges from a single central office need to have a separate NXX code for each rate center”).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

b. Pre-1996-Act Considerations.

The root of this Commission’s discomfort with VNXX routing can be traced back to 1983, when it banned traditional FX service.⁷³ At that time the Commission grandfathered all traditional FX customers and ordered that in the future, customers receiving FX must begin paying switched access charges on all FX traffic.

This decision was motivated by the substantial changes to the telecommunications industry created by divestiture. Prior to divestiture, local exchange companies participated in providing toll services, but the billing was handled by AT&T Long Lines or, for intrastate services, the large Bell companies (such as, in Oregon, Pacific Northwest Bell). Through the “Division of Revenues” process, revenues derived from toll calls were split with the local exchange carriers involved in handling the calls.⁷⁴ With divestiture, PNB would no longer be able to offer interLATA toll services within Oregon, which meant that it and other local carriers would no longer have as many toll revenues to share. The Commission at that time simultaneously approved an intrastate access charge regimes, - to make up some of the lost toll revenues - but also took steps, based on the monopoly environment at the time, to ensure that carriers could not avoid access charges on what would otherwise be toll calls.⁷⁵

The Commission was not at all pleased with this disruption in handling toll calls and sharing toll revenues. It worried that the replacement of the old system would leave less money to subsidize the cost of local basic service.⁷⁶ It decried the perceived “inefficiencies and inequities” visited by Judge Greene through the creation of LATA system. The Commission explained:

⁷³ In the Matter of Access Provisions and Charges of Telephone Utility Companies in Oregon, Public Utility Commission of Oregon, UT 5, Order No. 83-869. The Commission grandfathered FX service for those customers already subscribed to FX service.

⁷⁴ See also In the Matter of MTS and WATS Market Structure, *Third Report and Order*, 93 F.C.C.2d 241 (1983) (“*Access Charge Order*”) at ¶¶ 1-8, 11, 37-39 (describing new access charge system, and the “Division of Revenues” system it replaced).

⁷⁵ *Id.*, passim.

⁷⁶ *Id.*, at 2.

1 Essentially these LATAs were created only for one reason: To limit the size of
2 the area within Oregon in which Pacific Northwest Bell could carry long-distance
3 traffic. PNB is prohibited from carrying telephone messages between the two
4 LATAs, and thus loses revenues this traffic would provide. . . . Keeping PNB out
5 as a competitor diminishes its ability to generate revenue that would help
6 subsidize basic service for its own customers and for customers of Oregon
independent companies as well. I argued to the federal judge that it would be
inequitable to prohibit PNB from competing for this traffic. The judge was not
moved.⁷⁷

7 Considering the context of this ruling and the concerns underlying it, it actually shows
8 why it makes no sense to extend or apply a general ban on FX or VNXX arrangements to calls
9 used to access the Internet. As noted, the key concern of the Commission at that time was
10 ensuring that local carriers got their fair share of toll revenues in the post-divestiture world. The
11 underlying assumption of the Commission's ruling was that there would, indeed, be toll revenues
12 earned by *some* carriers; the only question was making sure that access charges or other rules
13 brought a fair share of those revenues back to the local carriers involved in originating or
14 terminating the toll calls.⁷⁸

15 Here, the record makes clear that consumers will not make toll calls to access the
16 Internet, and that per-minute pricing of Internet access is simply not acceptable in the
17 marketplace. What this means is that, unlike the situation with long distance calling at
18 divestiture – when pre-existing toll revenues were being taken away from the local exchange
19 carriers, and access charges were the main way to try to get them back – here there is no
20 preexisting pot of toll revenues associated with ISP-bound calls that can be or should be
21 recaptured for the benefit of the ILECs. To the contrary, there are no toll revenues associated
22
23

24 ⁷⁷ *Id.*, at 3.

25 ⁷⁸ Legally, today, access charges apply to “telephone toll service,” which is telephone service between calling areas,
26 for which an actual toll charge is applied. *See* 47 U.S.C. §§ 153(16) (definition of “exchange access”); (48)
(definition of “telephone toll service”). In 1983, the FCC created access charges based on its authority under 47
U.S.C. § 201(a) to establish the division of payments from customers in the case of a “through route,” which was a
situation where end-to-end service was provided by more than one carrier. *See Access Charge Order* at ¶¶37-41.

1 with ISP-bound calling at all. So the fundamental policy considerations that led the Commission
2 to ban FX in 1983 simply do not apply to this class of traffic.⁷⁹

3 The Commission has not yet drawn the legally compelled link between the existence of
4 toll charges, on the one hand, and the assessment of access charges, on the other. Instead, in
5 cases such as UM-1058, the Commission has expressed concern that VNXX arrangements might
6 be depriving ILECs of access charges, without recognizing that without toll revenues, there is no
7 legal or economic basis to impose access charges in the first place. In that case, the Commission
8 ultimately agreed with the CLECs that it had no jurisdiction to adopt compensation rules for ISP-
9 bound traffic in a generic proceeding. However, the Commission did observe that it “appreciated
10 the position in which the ILECs were placed, and our decision was reached with neither
11 satisfaction or enthusiasm.”⁸⁰

12 Level 3 submits that the Commission’s concern was misplaced. At least in the case of
13 ISP-bound calling, there are no toll revenues to be had, and so there is no economic or legal basis
14 to be concerned about the lack of payment of access charges. This is particularly clear in the
15 case of Level 3’s specific proposal in this case. With both FX and traditional VNXX
16 arrangements, the ILEC actually transports traffic across LCA boundaries at its expense – even if
17 no actual “toll” call is made. Under Level 3’s proposal, by contrast, Level 3, not Qwest, takes
18 full responsibility for transporting traffic across LCA boundaries. This further confirms that
19 there is no “toll” call here to support the imposition of access charges.

23 ⁷⁹ As a legal matter, as noted above, by definition access charges only apply to the origination or termination of a
24 “toll” service, which is defined as a service for which there is a separate toll charge. Since there are no toll charges
25 associated with VNXX- or VNXX-like arrangements to support dial-up Internet access, there are no toll revenues to
26 share, so access charges cannot apply. Of course, this was the rule in 1983 as well. As Judge Harold Greene
observed, “Local communications services are the ordinary telecommunications services used in most homes and
businesses *for which generally no long distance rates are charged.*” *United States v. AT&T*, 524 F. Supp. 1336,
1346 n.17 (D.D.C. 1981) (emphasis added). In other words – just like today’s statutory definitions – what
distinguished the local market from the long distance market was whether a toll was assessed.

⁸⁰ *Id.* at 3.

1 **c. The Commission Should Embrace Level 3’s Proposal.**

2 As discussed above, Level 3 fully recognizes that VNXX arrangements have generated
3 their share of controversy, both here in Oregon and elsewhere.⁸¹ Level 3 is specifically mindful
4 that this Commission has raised concerns regarding the impact of VNXX on the ILECs, and on
5 numbering resources.⁸² Even so, it is clear that, as both a factual and legal matter, the ISP-bound
6 traffic at issue in this case is quite different from what the Commission had in mind when it
7 expressed its reservations about VNXX traffic in the past.

8 First, as noted above, the *sine qua non* of a VNXX arrangement is a customer in one
9 definite physical location that wants to receive “local” calls from a different local calling area.
10 For example, the Commission’s own description of VNXX began with “a customer physically
11 located in Portland....”⁸³ However, unlike either FX or VNXX arrangements, with ISP-bound
12 traffic it makes no sense to try to define either a specific “customer” to whom the call is being
13 placed or a specific place where the call “ends.” As the FCC explained in the *ISP Remand*
14 *Order*, to the extent an ISP-bound call has a “destination,” it is the Internet site that the end user
15 is trying to access – not a normal telephone customer at all. But, as the FCC also pointed out,
16 during one call the end user may well connect to a number of different (and physically quite
17 diverse) Internet sites; and, indeed, any one site, such as a web page, may contain information
18 that is served up simultaneously from computers in a number of different locations:⁸⁴

19 In real time, the web host may request that different pieces of that webpage,
20 which can be stored on different servers across the Internet, be sent, also in real
21 time, to the user. For example, on a sports page, only the format of the webpage
22 may be stored at the host computer in Chicago. The advertisement may come
23 from a computer in California (and it may be a different advertisement each time
24 the page is requested), the sports scores may come from a computer in New York

23 _____
24 ⁸¹ Qwest raises a number of claims against what it calls Level 3’s use of “VNXX” arrangements. We address these
25 claims briefly below, although we expect to provide a more detailed response to Qwest’s views after we have seen
26 those views elaborated in Qwest’s brief.

⁸² See, e.g., In the Matter of the Investigation into the Use of Virtual NPA/NXX Calling Patterns, UM 1058; In the
Matter of Qwest Corporation’s Petition for Arbitration of Interconnection Rates, Terms, Conditions and Related
Arrangements with Universal Telecommunications, Inc., ARB 671, Order No. 06-190.

⁸³ Investigation into the use of Virtual NPA/NXX Calling Patterns, ORDER, UM-1058 (September 7, 2004).

⁸⁴ *ISP Remand Order* at ¶¶ 58-59 (footnotes omitted, emphasis added).

1 City, and a part of the webpage that measures Internet traffic and records the
2 user's visit may involve a computer in Virginia. If the user decides to buy
3 something from this webpage, say a sports jersey, the user clicks on the purchase
4 page and may be transferred to a secure web server in Maryland for the
5 transaction. A single web address frequently results in the return of information
6 from multiple computers in various locations globally. These different pieces of
7 the webpage will be sent to the user over different network paths and assembled
8 on the user's display. ... The "communication" taking place is between the dial-
9 up customer and the global computer network of web content, e-mail authors,
10 game room participants, databases, or bulletin board contributors. **Consumers
11 would be perplexed to learn regulators believe they are communicating with
12 ISP modems, rather than the buddies on their e-mail lists. The proper focus for
13 identifying a communication needs to be the user interacting with a desired
14 webpage, friend, game, or chat room, not on the increasingly mystifying
15 technical and mechanical activity in the middle that makes the communication
16 possible.**

17 The emphasized language makes clear that for this unique type of traffic it is simply irrational to
18 try to assign any particular "end point." As a result, ISP-bound calling – unlike an FX or VNXX
19 arrangements – does not involve a customer trying to appear to be in one place when it is really
20 located in some other place.⁸⁵ To the contrary, with ISP-bound calling, it simply makes no sense
21 to speak of the call having a "termination point" at all.⁸⁶ For this reason alone, whatever types of
22 customers and calls the Commission might have been focusing on when it defined VNXX as it
23 did in 2004, that definition simply does not apply to modern, centralized provision of dial-up
24 Internet access of the sort at issue in this case.⁸⁷

25 Second, as the quotes from the Commission order above show, one key concern –
26 probably *the* key concern – underlying the Commission's hesitations about VNXX arrangements
27 is their potential to deprive the underlying ILECs of originating toll revenues (and associated

28 ⁸⁵ At the hearings, Qwest's witness Mr. Brotherson completely ignored this succinct FCC description of the
29 ambiguity surrounding the "end point" of an ISP-bound call and, instead, suggests that the "end point" should be
30 deemed to be the ISP's modem location. *See, e.g.*, Tr. II at p. 80. The Commission should reject this attempt to
31 artificially create an "end point" for this kind of traffic which, in fact, has none.

32 ⁸⁶ *Cf.* Firesign Theater, *How Can You Be Two Places At Once When You're Not Anywhere At All?*

33 ⁸⁷ As noted below in Section III.A.3., *Qwest's* provision of dial-up Internet access services to ISP customers is
34 essentially identical to Level 3's. Given the size and importance of these two suppliers, a decision that this type of
35 arrangement is illegal or inappropriate would essentially shut down a vast portion of dial-up Internet access in
36 Oregon.

1 access revenues). The record makes clear, however, that this is a totally illusory concern in this
2 case. Putting the matter bluntly, consumers simply will not use dial-up Internet access if they are
3 subject to a toll charge or if the ISP is forced to pay access charges (directly or indirectly) and is
4 therefore forced to assess per-minute charges on end users. Dial-up calls to ISPs will be made
5 and charged on a local basis, or they will not be made at all. There simply is no pot of toll or
6 access revenue for the ILEC to capture or retain. Neither Qwest nor any other ILEC is getting
7 such revenue now, and the effect of a ruling either banning local dialing for Internet access or
8 imposing access charges on such traffic will be to suppress the traffic, not to bring revenues to
9 the ILEC.

10 Third, unlike the typical VNXX situation where a CLEC is seeking to require an ILEC to
11 bear the cost of bringing the traffic to the CLEC's single, central POI, here Level 3 – not Qwest
12 – will bear the costs of transporting the traffic outside the originating local calling area. So, just
13 as efficient, centralized dial-up Internet access is physically and technically different from
14 VNXX traffic, so too is Level 3's proposal for handling this traffic very different from that
15 normally applicable to VNXX arrangements. In purely legal/regulatory terms, to the extent that
16 Level 3 has the right to insist on Qwest bearing the cost of getting ISP-bound traffic from the
17 originating calling area to a single, central POI in a LATA – as, for example, Washington
18 regulators require – Level 3's proposal is more favorable to Qwest, because Level 3 has
19 established numerous Primary and Secondary POIs. It therefore becomes unnecessary even to
20 decide the outer bounds of Level 3's right to have Qwest deliver traffic to a single, central POI in
21 a LATA. That legal issue aside, however, this differing economic set-up means that this
22
23
24
25
26

1 arrangement for ISP-bound calls is not properly viewed as VNXX – it is, like ISP-bound calling
2 itself, *sui generis*.⁸⁸

3 Fourth, Qwest has argued that the use of VNXX dialing arrangements violate
4 Commission rules which define local service as calls “provided within the boundaries of
5 exchange maps.”⁸⁹ This claim might have some validity if Level 3 were offering VNXX
6 arrangements to normal business customers who wanted to “appear” to have a local presence in
7 one calling area while actually being located in another. Such business customers would be
8 buying intrastate business services that would be subject to the Commission’s jurisdiction. One
9 thing that the FCC made completely clear in its *ISP Remand Order*, however, is that all ISP-
10 bound traffic is inherently and unavoidably jurisdictionally *interstate* in nature.⁹⁰ For that
11 reason, the Commission simply has no authority to ban an entity like Level 3 (or like Qwest)
12 from offering PSTN connectivity services to ISPs, any more than the Commission has the
13 authority to ban Level 3 from offering interstate toll services.⁹¹

14 _____
15 ⁸⁸ Indeed, with a focus on Internet access, even states that have been skeptical of VNXX arrangements in general
16 have acknowledged that the specific class of *ISP-bound* VNXX traffic is covered by the FCC’s compensation
17 regime. See, e.g., *Southern New England Telephone Company v. MCI WorldCom Communications, Inc.*, 359 F.
18 Supp. 2d 229 (2005) (holding, for Connecticut, that all ISP-bound traffic, including VNXX traffic, is subject to
19 compensation; see *infra*); *Pac-West Telecom, Inc. v. Qwest Corporation*, WUTC, Docket No. UT-053036, Order
20 No. 03, *Recommended Decision to Grant Petition* (Aug. 23, 2005) at ¶¶ 31, 37; In the matter of the application of
21 TELNET WORLDWIDE, INC., for arbitration of interconnection rates, terms, and conditions and related
22 arrangements with VERIZON NORTH INC. and CONTEL OF THE SOUTH, INC., d/b/a VERIZON NORTH
23 SYSTEMS, Case No. U-13931 2004 Mich. PSC LEXIS 356 (Michigan PSC October 14, 2004); Investigation as to
24 Whether Certain Calls are Local; Independent Telephone Companies and Competitive Local Exchange Carriers -
25 Local Calling Areas, *Final Order*, DT 00-223; DT 00-054; ORDER NO. 24,080, 2002 N.H. PUC LEXIS 165 (N.H.
26 PUC October 28, 2002). Even if, in general, Oregon does not favor VNXX arrangements for intrastate traffic, that
does not mean that VNXX-like arrangements should not be embraced with respect to this unique class of traffic.

⁸⁹ Qwest/28, Brotherson/21.

⁹⁰ *ISP Remand Order* at ¶¶ 52-65. It is no answer to this plain assertion of federal jurisdiction to say that under the
so-called “ESP Exemption,” ISPs are really buying a local or intrastate service under state jurisdiction. As the FCC
stated, “The ESP exemption was and remains an affirmative *exercise* of federal regulatory authority over interstate
access service under section 201, and, in affirming pricing under that exemption, the D.C. Circuit expressly
recognized that ESPs use *interstate* access service.” *Id.* at ¶ 55 (footnote omitted, emphasis in original).

⁹¹ The fact that the Commission has been delegated authority under Sections 251 and 252 of the Communications
Act to arbitrate interconnection agreements between ILECs and CLECs, including aspects of those agreements that
relate in some ways to jurisdictionally interstate traffic, does not empower the Commission to authorize or ban the
provision by such entities of interstate services. In this regard, Section 253(a) of the Act provides that a state may
not directly or indirectly prohibit any entity from providing any interstate or intrastate telecommunications service.
Putting aside the question whether a ban on FX arrangements established in 1983 can survive the enactment of this
provision, it clearly prohibits the extension of that ban to *interstate* VNXX or VNXX-like services.

1 Fifth, there is no basis to conclude that VNXX-like arrangements to facilitate dial-up
2 Internet access in any way contravene the FCC’s governing regulations regarding the assignment
3 of telephone numbers. Those regulations require numbers to be made available in a manner that
4 accomplishes three purposes: (a) facilitating entry into the market; (b) not unduly favoring any
5 particular group of consumers or providers; and (c) not unduly favoring any particular
6 technology. 47 C.F.R. § 52.9(a). Yet Qwest wants the Commission to destroy Level 3’s ability
7 to serve ISP customers by providing dial-up Internet access by, essentially, denying Level 3 the
8 right to use numbering resources for its IP-based services. Moreover, since Qwest wants the
9 Commission to (at least implicitly) **approve of** Qwest’s nearly identical means of providing dial-
10 up access (*see below*), Qwest effectively wants the Commission to **unduly favor Qwest** by
11 protecting Qwest from competition; and, at bottom, it wants the Commission to **unduly favor**
12 **circuit-switched over IP-based technology** by eliminating the advantages of IP-enabled calling.
13 It is simply impossible to square what Qwest is asking the Commission to do – interfere with
14 Level 3’s ability to offer its services, by denying it access to numbers – with the Commission’s
15 plain obligation under federal numbering regulations.

16 Finally, as suggested above, VNXX-routed ISP-bound traffic is included within the scope
17 of the *ISP-Remand Order’s* compensation regime. As the *ISP Remand Order* states, ISP-bound
18 traffic is “information access.”⁹² As that order acknowledges, *see id.* at ¶¶ 39, 42-43, the term
19 “information access” derives from the “Modification of Final Judgment” or “AT&T Consent
20 Decree” that broke up the old Bell System. The AT&T Consent Decree was not concerned with
21 ILEC local calling areas. It was concerned with LATAs. The divested Bell ILECs were
22 permitted to offer services **within** LATAs, but were not permitted to offer service across LATA
23 boundaries.⁹³ As a result, “information access” under the AT&T Consent Decree referred to the
24 provision of links between an end user and an information service provider (such as an ISP)

25 _____
26 ⁹² See *ISP Remand Order* at ¶¶ 47-47.

⁹³ See *United States v. AT&T*, 552 F. Supp. 131, 141 (D.D.C. 1982). See also *id.* at 142-43 (analogizing LATA-wide access provided to interexchange carriers to access to be provided to information service providers).

1 *within the same LATA.* Nothing in the AT&T Consent Decree suggests or requires that the
2 provision of “information access” (or any other kind of access) conform to ILEC local calling
3 areas (which varied considerably among the divested companies).⁹⁴ It follows that any
4 intraLATA ISP-bound traffic, VNXX-routed or not, is “information access” covered by the *ISP*
5 *Remand Order’s* compensation regime. The status of the traffic as “local” or not, with reference
6 to the ILEC’s local calling areas, is simply irrelevant to that regime.⁹⁵

7 In short, there is no rational basis to conclude that Level 3’s proposed solution for dealing
8 with dial-up Internet access in any way runs afoul of Oregon law. The service is interstate in
9 nature so the Commission’s policies regarding intrastate services don’t really apply. The
10 underlying policy concerns – potential loss of ILEC toll and access revenues, and potential ILEC
11 costs in carrying traffic to a central POI at the ILEC’s expense – do not arise, because dial-up
12 Internet access simply will not occur if subjected to toll or access charges, and Level 3, not
13 Qwest, has agreed to pay for transport from the originating end office. And using PSTN
14 numbers to facilitate Internet access does not contravene any applicable numbering rule or
15 regulation. For all these reasons, the Commission should approve Level 3’s proposal on this
16 subject and reject Qwest’s attempt to shoe-horn this *sui generis* arrangement within the scope of
17 a Commission ban devised for other services in other circumstances.

18
19 ⁹⁴ The definition of “information access” in the AT&T Consent Decree is “the provision of specialized [intraLATA]
20 telecommunications services by a [Bell ILEC] in [a LATA] in connection with the origination, termination,
21 transmission, switching, forwarding or routing of telecommunications traffic to or from the facilities of a provider of
22 information services.” *Id.* at 229. The actual language of the decree speaks of “exchange telecommunications
23 services” in “an exchange area.” “Exchange area,” however, is also a defined term, and is, specifically, the decree’s
24 term for “LATA.” *Id.* at 228. In other words, from the very beginning, the concept of “information access” has
25 always referred to a service offered on a LATA-wide basis, not on the basis of originating ILEC local calling areas.
26 LATAs are, and always have been, quite different from (and larger than) local calling areas. See *United States v.*
Western Electric Co., 569 F. Supp. 990, 994-95 (D.D.C. 1983).

⁹⁵ The subsequent history of the *ISP Remand Order* further confirms this. In *WorldCom v. FCC*, 288 F.3d 429
(D.C. Cir. 2002), the court ruled that the FCC’s holding that “information access” was excluded from Section
251(b)(5) was “precluded.” The *ISP Remand Order* must be read in light of the D.C. Circuit’s ruling in *WorldCom*.
In that ruling, the court excised the key erroneous element of the FCC’s thinking – that “information access” traffic
isn’t covered by 47 U.S.C. § 251(b)(5). By cutting out *only that element* of the FCC’s analysis, while leaving the
rest intact, the court eliminated any logical basis, going forward, for excluding *any* “information access” traffic from
reciprocal compensation under § 251(b)(5). It follows that once traffic is properly characterized as “information
access,” it must be treated as subject to the FCC’s compensation regime – which the court allowed to remain in
place.

1 **3. It Would Be Grossly Discriminatory To Fail To**
2 **Approve Level 3's Proposal, Given Qwest's Own**
3 **Arrangements For Serving ISPs.**

4 Aside from the fact that Level 3's proposal for handling ISP-bound calls is substantively
5 fair, there is another reason that the OPUC should approve it: failing to do so would be grossly
6 discriminatory, given how Qwest itself handles arrangements for calls to ISPs where Qwest, not
7 Level 3, serves the ISP.

8 As noted above, Qwest is one of Level 3's primary competitors in Oregon for the
9 business of ISP customers seeking connectivity to the PSTN. Where Qwest (through an affiliate)
10 provides PSTN connectivity to ISPs, the record establishes that it does so using essentially
11 identical routing arrangements to those used by Level 3. Through its affiliate, QCC, Qwest
12 offers a its ISP customers a product called "Wholesale Dial," which is functionally identical to
13 the "Managed Modem" service that Level 3 provides to ISP customers.⁹⁶

14 A Qwest ISP customer does not have to have any equipment or facilities in a local calling
15 area in order for customers to be able to call the ISP on a "local" basis.⁹⁷ Also, the Qwest ISP
16 customer does not have to pay access charges to receive the calls. With Qwest's "Wholesale
17 Dial" service, the ISP customer is assigned phone numbers in the LCAs in which the ISP's end
18 user customers reside – even though the ISP has no equipment or other physical presence there.
19 Locally-dialed ISP-bound calls from these end users are directed by the originating switch to a
20 trunk port attached to an interoffice transport trunk, and then routed the ISP for further delivery
21 to the Internet sites the end user is trying to reach. This is just like Level 3's arrangement, where
22 the locally-dialed ISP-bound calls are directed to a trunk port attached to the DEOTs/DTTs for
23 which Level 3 pays.

24 Obviously, it would be blatantly discriminatory to say that Qwest can use this
25 arrangement for its own ISP customers without the arrangement being deemed "illegal" VNXX
26 and without QCC (the Qwest affiliate serving the ISPs) having to pay access charges to the

⁹⁶ Level 3/800, Wilson, p. 6.

⁹⁷ Level 3/716, Greene, p. 24, and Tr. II at p. 32.

1 Qwest ILEC entity, if Level 3 cannot do so as well. To avoid this result, Qwest throws up a
2 regulatory fig leaf, claiming that the trunk ports that *QCC* uses are *ISDN PRI* ports, not plain-
3 vanilla trunk ports like the ones Level 3 uses.⁹⁸

4 But this, in a word, is bogus. The record makes clear that the PRI ports Qwest uses to
5 provide connectivity for ISPs are technically and functionally the same as the DEOT/DTT ports
6 Level 3 uses. Both PRI and DTT/DEOT ports provide basic connectivity from one central office
7 to another. The trunk groups connected to those ports are engineered in the same way, based on
8 the same traffic considerations. And both are connected to end office switching functionality to
9 allow end users to call a local number and to connect to the Internet through the ISP.⁹⁹ As a
10 matter of physical network engineering, trunk ports for DTTs and PRIs are provisioned on the
11 same type of trunk port “cards,” using slightly different software settings. While PRI trunks use
12 ISDN PRI protocol, and DTT trunks use SS7 protocol, ISDN PRI protocol is based on SS7
13 protocol and both provide basically the same functions.¹⁰⁰

14 In these circumstances it would be plainly and blatantly discriminatory to allow Qwest’s
15 arrangements for serving ISPs to remain in place while not approving Level 3’s proposal. While
16 Level 3 urges the OPUC to approve its proposal, therefore, if for some reason it does not, OPUC
17 must simultaneously subject Qwest’s own arrangements for serving ISPs to identical (onerous)
18 economic conditions. Level 3 strongly suspects that faced with such a prospect, Qwest would
19 abandon any objection it might have to Level 3’s proposal.

20
21
22
23
24
25
26 ⁹⁸ Level 3/700, Greene, p. 26.

⁹⁹ Level 3/800, Wilson, p. 9.

¹⁰⁰ Level 3, Exhibit 800, Wilson, pp. 7-8.

1 **Issue No. 16**

2 **B. The Commission Should Adopt Level 3’s Proposal Regarding**
3 **Intercarrier Compensation For VoIP Traffic.**

4 **Reciprocal compensation for VoIP traffic should be handled in precisely that**
5 **same way that ISP-bound traffic is handled; that is, so long as the VoIP**
6 **traffic is exchanged with Qwest at a Primary or Secondary POI, the call**
7 **should be subject to reciprocal compensation at the FCC-mandated \$.0007**
8 **per-minute rate. In the case of those two LCAs in the State served by Level 3**
9 **or its customers where Level 3 does not maintain a POI, VoIP traffic will be**
10 **exchanged on a bill and keep basis. This resolution makes sense given that**
11 **VoIP traffic is “nomadic” in nature and it would be impossible to attempt to**
12 **nail down the geographic endpoint of the broadband end of the call.**
13 **Moreover, given that there is authority to suggest that VoIP traffic is not**
14 **subject to access charges, Level 3’s proposal represents a reasonable**
15 **compromise.**

16 Although a large majority of the traffic that Qwest and Level 3 exchange is ISP-bound
17 calls from Qwest’s end users to ISPs served by Level 3, a growing fraction of the traffic is VoIP
18 calls bound from end users served by Level 3 itself, or Level 3’s VoIP-provider customers,
19 bound for Qwest end users. It is therefore necessary to decide what intercarrier compensation
20 arrangements apply to this type of traffic.¹⁰¹

21 Level 3 submits that the best answer here is to treat VoIP traffic just like ISP-bound.
22 That is, as long as the traffic is exchanged with Qwest at a Primary or Secondary POI, it should
23 be subject to “local” treatment for purposes of intercarrier compensation. To the extent, however
24 that Level 3 asks Qwest to carry such traffic outside the bounds of a local calling area (in this
25 case, from a distant POI into such an area), this traffic will be subject to a bill and keep
26 arrangement.

Level 3 submits that this is reasonable for several reasons. First, although VoIP calls are
perhaps not as utterly divorced from notions of defined beginning and end points as ISP-bound
traffic, it remains true that a VoIP call can originate from any broadband connection anywhere in

¹⁰¹ Note that Level 3 recognizes that so-called “IP in the middle” traffic is to be treated as normal long distance traffic subject to normal access charges. The question at issue here is how to handle traffic that originates as VoIP traffic on a VoIP end user’s broadband connection, bound for a Qwest end user on the PSTN, or vice-versa.

1 the world, and that the “telephone number” associated with such a call will bear no particular
2 relationship to where the calling party happens to be.¹⁰² So, the only result of trying to nail down
3 “where” a particular VoIP call begins or ends will not be clarity but, instead, contention and
4 disputes between the parties.¹⁰³

5 Second, the regulatory status of VoIP calls remains highly ambiguous.¹⁰⁴ In this regard,
6 however, the most recent court to try to clarify the matter concluded that VoIP traffic is
7 “information services” traffic, not subject to access charges at all.¹⁰⁵ Level 3’s proposal would
8 be more favorable to Qwest than this recent court case would suggest, in that Qwest would avoid
9 traffic termination charges on VoIP calls it originates from end offices without a Primary or
10 Secondary POI.¹⁰⁶

18 ¹⁰² The evidence shows that the same VoIP end user with the same associated telephone number can make calls
19 from a different broadband connection at different times, when, for example, a VoIP user with a SIP phone makes a
20 call from a home broadband connection, then later makes a call from a hotel or business broadband connection using
21 the same SIP phone.

22 ¹⁰³ For this reason, Qwest’s suggestion that VoIP traffic be carefully parsed into different categories based on the
23 precise type of equipment used to enable that traffic, where that particular equipment is located, etc., is totally
24 unworkable. It is impossible to know, in that level of detail, what “type” of VoIP traffic is at issue. It is, however,
25 possible to include an identifier with the SS7 message associated with a VoIP call that it is, in fact, a VoIP call.
26 Level 3 is prepared to provide this indicator to Qwest, if Qwest wants to receive it, in order to facilitate identifying
VoIP calls.

¹⁰⁴ As noted above, the FCC’s last effort to clarify how to handle ISP-bound calls occurred in 2001. It is probably
fair to say that the FCC’s last remotely comprehensive attempt to discuss the regulatory classification of VoIP traffic
was even earlier, in 1998. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to
Congress, 13 FCC Rcd 11501 (1998).

¹⁰⁵ See *Southwestern Bell v. Missouri PSC*, No. 4:05-CV-1264-CAS (E. D. Mo. Sept. 14, 2006), slip. Op. at 37-46.

¹⁰⁶ Qwest wishes to limit the definition of VoIP traffic to traffic that originates in IP. Accordingly Qwest would
deny a VoIP designation to a call from a Qwest local service customer that originates in TDM but terminates to a
VoIP customer in IP. See, Qwest/28, Brotherson/39-40. Given that calls either originating or terminating on a
broad band connection are technically indistinguishable, Qwest’s position makes no sense.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

Issue Nos. 1A; 2A; 2B; 18

C. The Commission Should find that Level 3 is Allowed to Combine all of its Traffic Destined to Qwest Customers onto a Single Trunk Group:

Qwest cannot lawfully compel Level 3 to establish separate trunk groups for different regulatory “types” of traffic. Legally, “interconnection” under the Act specifically includes “exchange access” traffic. Thus, Qwest is legally obligated to handle both local and toll traffic on “interconnection” trunks. Moreover, there is no technical reason to require separate trunking, which in fact severely degrades network efficiency. Qwest’s only reason for separate trunk groups is its purported inability to properly rate access and non-access traffic on “local” trunks. The record shows, however, that (a) Qwest has combined all traffic on Feature Group D trunks for other carriers, such as AT&T, for many years and has used factors to rate and bill these calls; (b) all other major ILECs are able to accommodate combined traffic on local trunks; (c) Level 3 employs a single interconnection network between its Portland facilities and Verizon’s Beaverton territory over which Level 3 terminates IXC traffic while also exchanging ISP-bound and VOIP traffic; (d) the parties could apply percent-of-use factors to the traffic; and/or (e) Qwest can easily activate the required recording capabilities on the “local” trunk ports on its switches. Level 3’s proposal can be easily and inexpensively accomplished. On the other hand, Qwest’s proposal, is technically indefensible, would introduce significant points of failure into the network and would cost Level 3 millions of dollars each year in Oregon alone and should be rejected.

Trunk groups are logical paths between switches. A common analogy is the lane lines painted onto a multi-lane highway. The highway itself is the physical transmission facility – here, a fiber optic or metallic connection physically connecting two switches. A trunk group is like an express lane on the highway, with traffic in that lane routed to a particular point.

When two carriers interconnect, their technical personnel need to cooperate to establish whatever trunk groups are required. This is because, in order to function, a trunk group must have one “end” at a trunk port on one carrier’s switch, and another “end” at a trunk port on the other carrier’s switch. Both carriers’ switches have to know that traffic going out on that particular trunk port will always go to the switch at the other end, and that traffic coming in on that trunk port will always be coming from the switch at the other end.

1 A “trunk” is literally a single voice-grade path between two switches. A trunk “group” is
2 a collection of trunks – perhaps a very large collection – that are all going between the same two
3 switches and that are administered as a single unit.¹⁰⁷ For various technical reasons, for any
4 given volume of traffic between two switches, it takes fewer total trunks to carry that volume of
5 traffic on an integrated trunk group than if the traffic is split up into smaller groups. For
6 example, if adequate quality service (that is, a tiny enough fraction of blocked calls) can be
7 provided on a route with an integrated trunk group comprised of 100 trunks, it would not be
8 possible to get the same quality of service (that is, the same low fraction of blocked calls) by
9 splitting that trunk group into two groups of 50 trunks each. To the contrary, to maintain the
10 same level of service might require two groups of 55 or 60 trunks each.¹⁰⁸

11 Because of the inefficiency of multiple small trunk groups, as compared to one large one,
12 Level 3 has a strong and legitimate interest in combining as much traffic as possible into a single
13 trunk group linking Level 3’s network with any particular Qwest switch. Establishing multiple
14 trunk groups will require both carriers to waste trunk ports on their switches (since more total
15 trunk ports will be required) and will require Level 3 to pay for more DEOTs along a given route
16 than the traffic level would justify as an engineering matter.¹⁰⁹

17 The record shows that the vast majority of Level 3’s traffic is ISP-bound and VoIP
18 traffic. However, Level 3 also has some traditional InterLATA traffic that it carries for IXCs
19 that must be delivered to Qwest customers. Level 3 currently routes this traffic to 3rd party IXCs
20

21 ¹⁰⁷ Level 3/300, Ducloo/10.

22 ¹⁰⁸ These numbers are examples only. Precisely how many additional trunks are required if a large, efficient trunk
group is split up will depend on a number of technical characteristics of the traffic being carried.

23 ¹⁰⁹ Looking only at Level 3’s costs, it would be most efficient for Level 3 to establish a single, massive trunk group
between its network and each Qwest tandem switch in a LATA. This, however, would require Qwest to switch
24 every Level-3-bound call twice – once at the originating end office, and then again at the tandem. Network
engineers generally accept that when traffic between two switches reaches a certain level, it makes sense to establish
25 a direct trunk between those switches, rather than rely on an intervening tandem. For this reason, Level 3 has agreed
with Qwest to establish DEOTs to each Qwest end office where traffic reaches that level. This sound engineering
understanding is what led the parties to develop the extensive collection of Secondary POIs – end offices to which
26 Level 3 has established a DEOT. While financial responsibility for these DEOTs is sometimes controversial, in this
case Level 3 has agreed that it will pay for the DEOTs (at TELRIC rates) as part of an overall resolution of the issue
of intercarrier compensation for ISP-bound and VoIP traffic. *See supra.*

1 for completion to Qwest. These IXC's price this service at relatively high rates. Level 3 would
2 like to route all of this traffic directly to Qwest over its existing LIS trunks. Level 3 proposes
3 that the traffic be rated and billed using factors, subject to audits and true-up. Level 3's proposal
4 is technically feasible, efficient for both Level 3 and Qwest, and will provide Qwest with all of
5 the information it requires to bill for the traffic. Accordingly, Level 3's proposed language
6 allows all traffic types to be exchanged over a single trunking network—whether comprised of
7 LIS trunks or Feature Group D trunks:

8 **7.2.2.9.3.2 CLEC may combine Exchange Service (EAS/Local) traffic, ISP-**
9 **Bound Traffic, Exchange Access (IntraLATA Toll carried solely by Local**
10 **Exchange Carriers) VoIP Traffic and Switched Access Feature Group D**
11 **traffic including Jointly Provided Switched Access traffic on the same**
12 **Feature Group D trunk group or over the same interconnection trunk**
13 **groups as provided in Section 7.3.9.¹¹⁰**

14 Qwest wants to require the parties to forgo the substantial network efficiencies of large,
15 efficient trunk groups between switches.¹¹¹ Instead, Qwest wants Level 3 to establish, for each
16 switch, one trunk group for traffic subject to access charges, and another for other traffic.
17 Specifically, Qwest is proposing in this case that Level 3 separate the switched access traffic and
18 send it over Feature Group D Trunks.¹¹² The Commission should reject this Qwest argument
19 and specifically require the parties' interconnection agreement to permit the establishment of
20 combined trunk groups using Qwest's "Local Interconnection Service," or LIS, trunks.

21 ¹¹⁰ Additional contract sections affected by this dispute are: 7.1.1; 7.2.2.9.3.1; 7.3.6.3; 7.3.9.

22 ¹¹¹ Level 3/300, Ducloo/12. In this regard, Qwest is reluctant to accept incoming IP-enabled traffic at all, but to the
23 extent it is willing to accept it, it wants to do so on separate trunk groups. Tr. I at pp. 100-102. This proposal makes
24 no sense, either technically, economically, or legally. VoIP traffic will be subject to some form of intercarrier
25 compensation, so it needs to be tracked so that it can be billed. Level 3/300, Ducloo/13.

26 ¹¹² There is certainly no reason, as a matter of network engineering, for distinguishing different types of traffic and
placing them on different trunk groups. In network terms, all traffic is either IP or TDM. Regulatory categories are
irrelevant to the photons and electrons that make up a communication-in-progress, and network switches and
transmission gear are only capable of handling photons and electrons – not regulatory categories trumpeted by
Qwest lawyers. The only thing that matters from a network engineering perspective is where the traffic is going.
There is no technical reason why these calls cannot all be routed over the same trunk groups. In this regard,
although some calls that Level 3 delivers to Qwest might *begin* in IP format, Level 3 delivers all traffic to Qwest in
standard PSTN circuit switched format and standard SS7 signaling, and receives all traffic from Qwest in that same
format. See Level 3/300, Ducloo/13.

1 Qwest cannot deny that requiring separate trunk groups for different types of traffic
2 would be grossly technically inefficient. Its proposal would force Level 3 to order, build, and
3 provision additional trunk groups to each Qwest tandem and, over time, to each end office in
4 Oregon.¹¹³ This would require needless duplication of both transport and switch facilities, and
5 would lower the blocking grade of service.¹¹⁴ And it would be economically inefficient, costing
6 Level 3 millions of dollars per month.¹¹⁵

7 Qwest claims, however, that the technical inefficiency of multiple trunk groups – which,
8 again, the record shows would cost Level 3 literally millions of dollars per month – is justified
9 because the switch ports to which its LIS trunks are attached are unable to generate the detailed
10 recordings (supposedly) needed to bill for switched access traffic. In Qwest’s mind, this
11 administrative problem with Qwest’s network supposedly justifies imposing enormous burdens
12 on Level 3. In fact, however, Qwest has no leg to stand on, either legally or technically.

13 As a legal matter Qwest’s assertion that its LIS trunks are not configured to record access
14 traffic is baffling. Qwest created LIS trunks, presumably, as a way to meet its responsibilities
15 under Section 251 of the Telecommunications Act. Section 251(c)(2) specifically requires that
16 Qwest “provide ... interconnection ... for the transmission and routing of telephone exchange
17 service *and* exchange access.” 47 U.S.C. § 251(c)(2)(A) (emphasis added). It is obvious under
18 this language that access traffic would be flowing over the trunks Qwest sets up to exchange
19 traffic with CLECs. This clear legal requirement is now more than a decade old. If Qwest has
20 failed to properly configure its LIS trunks – again, the type of trunks it has supposedly set up for
21 interconnection under the Act – to handle access traffic, there is no possible reason to penalize
22

23 ¹¹³ Level 3 and Qwest do agree that it makes sense to establish separate trunks (DEOTS or DTTs) to carry traffic
24 between Level 3 and particular Qwest end office switches when traffic exceeds a certain threshold. Specifically, the
25 Parties have agreed that when Level 3 is interconnected at the access tandem, and when there is a DS1 level of
26 traffic (512 BHCCS) over three consecutive months, between Level 3’s switch and Qwest’s End Office Switch,
Qwest may request CLEC to order a direct trunk group to the Qwest End Office Switch. Section 7.2.2.9.6.
Establishing a direct end office trunk in such circumstances removes traffic from Qwest’s tandem switches, allowing
more efficient call routing and saving Qwest the cost of growing or replacing its tandems.

¹¹⁴ Level 3/300, Ducloo/14-19.

¹¹⁵ Level 3/712, Greene.

1 **Level 3** for Qwest’s plain failure to meet its legal obligations. If Qwest has chosen not to
2 acknowledge its statutory duty, that is simply a self-inflicted wound.

3 In this regard, FCC Rules 51.305(c), (d) and (e) (47 C.F.R. §§ 51.305(c), (d), (e)) are
4 instructive. Under those rules, successful interconnection at a particular point on any ILEC’s
5 network using “particular facilities” or adhering to “the same interface or protocol” creates a
6 presumption that such an interconnection arrangement is technically feasible for *all* ILECs.
7 Here, the evidence shows that Level 3 has established a unified interconnection network using
8 local interconnection trunks, not FGD trunks, with SBC, Verizon and BellSouth in dozens of
9 other states.¹¹⁶

10 Indeed, Level 3 has been using single, combined trunking arrangements in Oregon with
11 Verizon for over a year.¹¹⁷ This single, unified interconnection network – connecting Portland to
12 Beaverton and other Verizon territory within Oregon – supports the billing and payment of
13 switched access charges (which, as we understand it, is Qwest’s only real concern).¹¹⁸

14 Given this success with other carriers, including Verizon in Oregon, Qwest bears a heavy
15 burden – which is plainly did not meet here – of trying to show that what is perfectly feasible for
16 SBC and Verizon and BellSouth is somehow beyond Qwest’s capabilities. Without such proof,
17 which Qwest did not supply, the FCC’s rules essentially mandate that the Commission here
18 approve Level 3’s proposal for handling all types of traffic on LIS trunks.

19 To the extent that Qwest’s worries about billing can even be regarded as a “technical”
20 issue, the record here makes clear that there are a number of straightforward solutions that avoid
21 the massive inefficiency of separate trunk groups.

22 First, long industry practice – and Level 3’s successful experience with other large ILECs
23 – shows that billing concerns can be resolved by using “factors” to allocate the traffic exchanged
24 over a combined trunk group into different billing categories. In this regard, Level 3 maintains

25 ¹¹⁶ Tr. at p. 121.

26 ¹¹⁷ Tr. I at pp. 49-50, 94 (interconnection network with Verizon in Oregon is exactly the same as represented in
diagram 701), 96.

¹¹⁸ *Id.* at 96.

1 billing tables that indicate which NPA-NXXs are “local” to which other NPA-NXXs, and which
2 ones (by default) are toll. Qwest does the same thing. Over a period of time, Level 3 can collect
3 all call data on calls exchanged between the parties. Once this data is collected, Level 3 will, in
4 accordance with industry standard practices, calculate and report the Percent Interstate Usage
5 (PIU) and Percent Local Usage (PLU).¹¹⁹ In addition, Level 3 can identify the percent of IP-
6 enabled traffic (PIPU). *Id.* Level 3 is also proposing that these factors be verified on a monthly
7 basis.¹²⁰ Level 3’s calculations can be audited by Qwest if there is any doubt as to their validity.

8 For example, in Verizon territory in Oregon, and pursuant to an agreement that has been
9 in place over 18 months, Level 3 exchanges all traffic with Verizon over a single trunk group.
10 Level 3 carries traffic from Verizon end users dialing the Internet over the same trunks as carry
11 the interexchange, VoIP and traditional local traffic flowing from Level 3 end users to Verizon
12 end users.¹²¹ Level 3 uses the same system of factors proposed here in order to ensure that
13 Qwest is paid appropriate amounts, including access charges, for the calls.¹²² Level 3 has also
14 employed the same arrangement with Bell South and SBC, in numerous states, all without
15 problems.¹²³

16 Indeed – and tellingly – this is precisely the process Qwest used for years with AT&T.
17 When AT&T’s CLEC affiliates began carrying local traffic AT&T requested that it be allowed to
18 combined local and long-distance traffic on its Feature Group D trunks. Qwest agreed and used
19 factors to bill for the combined traffic.¹²⁴

20 If Qwest does not want to use factors for some (inexplicable) reason, the fact remains that
21 it is trunk ports on *Qwest’s* switches that lack the recording capability that Qwest supposedly
22 desires. Qwest, of course, is in control of and responsible for its own switches, and is fully
23 capable of programming its LIS switch ports to have the recording capability it says it needs. In

24 ¹¹⁹ Level 3/300, Ducloo/42.

25 ¹²⁰ Level 3/300, Ducloo/42.

26 ¹²¹ Tr. I at p. 95.

¹²² Level 3/700, Greene/14-15

¹²³ Tr. I at p. 121.

¹²⁴ Tr. II at pp. 108-109.

1 order to provide LIS trunks with the same billing capability as FGD trunks, Qwest could simply
2 program its switches to treat the LIS trunks as FGD trunks, for purposes of recording, by
3 “turning on” the correct feature in the switch and in the recording equipment. No software or
4 hardware development would be required. All that would need to occur would be to impose the
5 correct price (LIS, not Feature Group D) on Level 3. This could be handled accurately by simple
6 ratios on the billing spread sheet.¹²⁵ In this regard, the difference between Qwest’s Feature
7 Group D trunks (which have the relevant recording features) and its LIS trunks (which
8 apparently do not), is not large in real, physical terms. To the contrary, it is simply a designation
9 on the switch to which the trunk is attached. (Of course, Qwest does charge substantially more
10 for the Feature Group D trunks.) Otherwise these two trunk “types” are identical.¹²⁶

11 Other than a desire to avoid these modest reprogramming costs – which Qwest did not
12 even attempt to quantify in the record – it is hard to see why Qwest is pressing its inefficient
13 trunking plan. But, as noted above, the record is clear that it will cost Level 3 millions of dollars
14 a month to *comply* with Qwest’s plan. So even if Qwest is correct that it must have recording
15 capability on any trunks that carry access or combined traffic – and Qwest has not remotely
16 established that claim in the record – then the just and reasonable way for Qwest to obtain that
17 capability is not to force Level 3 to inefficiently configure its network; it is to call on Qwest to
18 reprogram its LIS ports so that they can do whatever it is that Qwest, for its own purposes, wants
19 them to do.¹²⁷

21 ¹²⁵ Tr. I at pp. 146-147

22 ¹²⁶ Tr. I at p. 146.

23 ¹²⁷ In legal terms, Qwest is seeking to impose a particular, inefficient interconnection “term” or “condition” on
24 Level 3, based on Qwest’s billing-related concerns. Any terms and conditions related to interconnection
25 arrangements must, under 47 U.S.C. § 215(c)(2), be “just” and “reasonable.” It is not “just” to require Level 3 to
26 incur millions of dollars of costs related to network inefficiency because Qwest has failed to configure its own LIS
trunk ports to be able to meet Qwest’s own stated billing needs for access traffic, when the very same statute makes
clear that Qwest will be exchanging access traffic with CLECs. Moreover, it cannot be “reasonable” to require
Level 3 to incur millions of dollars of monthly costs in order to allow Qwest to avoid some one-time programming
costs that are not even quantified in the record, but which are clearly relatively modest. Qwest’s proposal, therefore,
is simply inconsistent with the requirements of the Telecommunications Act of 1996 as they relate to
interconnection terms and conditions.

1 In this regard, the record shows that even if Qwest wants to bill access charges to Level 3
2 based on full call detail records (CDRs) rather than factors, that too is achievable without
3 imposing massive technical inefficiencies on Level 3. Specifically, Level 3 can provide CDRs to
4 Qwest covering the traffic the parties exchange. In this regard, the Ordering and Billing Forum
5 (OBF) of ATIS (Alliance for Telecommunications Industry Solutions) – of which Qwest is a
6 member¹²⁸ – has developed an electronic message specification providing guidance as to how
7 carriers should exchange call detail records with one another. The standard adopted is referred to
8 as Form 110101, and it provides all information required to measure and rate a call (including
9 the originating and terminating numbers; the time and duration of the call; and whether or not the
10 call was delivered using an ESP). Level 3 can provide these records per the industry standard.¹²⁹

11 Finally, Qwest has asserted that it expects difficulty with IXCs and other CLECs that
12 expect to receive recording data from the Qwest tandem switch when an IXC terminates traffic
13 to such other carriers through Qwest's network. This problem is illusory, however, because
14 Level 3 has agreed not to send toll traffic that does not terminate to Qwest end users or
15 UNE/resale customers to Qwest end office switches.¹³⁰ Specifically, Level 3's proposed contract
16 language ensures that Level 3 will terminate traffic only to Qwest; no 3rd party carriers would be
17 involved.¹³¹ Instead, Level 3 can efficiently use a single IXC to terminate traffic to 3rd party
18 carriers, nationwide, as shown in Level 3 Exhibit 108.¹³²

20 ¹²⁸ Tr. I at p. 202.

21 ¹²⁹ Tr. I at p. 99.

22 ¹³⁰ Level 3/300, Ducloo/24-25. In this regard, even if Level 3 were to adopt Qwest's proposal regarding the routing
23 of Internet-bound traffic – that is, the purchase of PRI trunks – that would not solve the 3rd-party-billing problem
24 Qwest claims to be concerned about. This is because a PRI is a retail line; it is not normally used for
25 interconnection. So, from a technical perspective, there is no way to pass the required billing data if we use this
26 approach. Tr. I at pp. 100-101. On the other hand, if the parties adopt Level 3's solution – the same solution that
Level 3 has used over the past 18 months and continues to use with Verizon in today – Level 3's network can
capture and provide EMI 11-01-01 records that Qwest can pass on to any affected third party carrier. *Id.* at pp. 96-
101.

¹³¹ *Id.* at 104.

¹³² *Id.* at 105-14. Indeed, not only does Exhibit 108 show how Level 3 would address routing of IXC traffic to
numbers not homed to Qwest switches, it actually demonstrates how that interconnection works today with Verizon
in Oregon, as well as how Level 3 terminates IXC traffic with SBC and Bellsouth, throughout their respective
networks.

1 There are other, affirmative benefits to adopting Level 3’s proposed “single trunking”
2 plan as well. A single, integrated trunking network is particularly efficient in this case because
3 Level 3’s interconnection network in Oregon is vast. It can support every resident in Oregon
4 surfing the Internet via dialup for 45 minutes each in a 24 hour period.¹³³ Because of people’s
5 Internet usage habits, however, that capacity is largely idle during the daytime. Level 3 would
6 like to use that idle capacity to terminate long distance calls when everyone is at work during the
7 day.¹³⁴ This is also efficient because overall, the use of dial-up Internet access has peaked and is
8 declining; an integrated trunking arrangement would allow Level 3 to make use of the network it
9 has built.¹³⁵ And, due to consolidation in the industry, we anticipate that IXC terminations will
10 increase.¹³⁶

11 Not only does Level 3’s “single trunking network” proposal work in Oregon and
12 throughout the nation, it saves Qwest money. This is because Qwest’s IXC billing is not
13 accurate. Due to the volume and nature of IXC billing, Qwest employs many tens of people to
14 review exceptions to the IXC bills. This is a labor intensive process. Moreover, sometimes the
15 billing systems do not provide the correct data, resulting in a re-run of the bills known as a
16 “chron job”. This was so expensive Qwest moved the operation offshore.¹³⁷ By contrast, Level
17 3’s factor methods eliminates the need for reviewing every single detailed record. So long as
18 carriers can agree on reliable and verifiable factors, there is no need for mechanized billing that
19 Qwest says it prefers. Moreover, Level 3 has conducted extensive testing with Verizon, SBC
20 and Bellsouth and found its factor methods to be reliable.¹³⁸

21 In sum, it is unclear to Level 3 why Qwest is so opposed to allowing Level 3 to transport
22 its traffic in the efficient and effective fashion Level 3 has proposed. Not only has Level 3
23 proposed more than one solution to Qwest’s perceived billing concerns—it has also pointed out

24 ¹³³ Tr. I at p. 82.

25 ¹³⁴ *Id.* at 96.

26 ¹³⁵ *Id.* at 102.

¹³⁶ *Id.* at 102-03.

¹³⁷ *Id.* at 118-21.

¹³⁸ *Id.* at 122-23.

1 that Qwest's proposal will increase Qwest's own costs and burden its own network. Whatever
2 Qwest's reasons, its proposal constitutes an unnecessary and unacceptably inefficient and costly
3 process for Level 3 and must be rejected.

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

Issue Nos. 1B; 1D; 20; 30

D. Interconnection Issues

Finally, there are a number of sections in the proposed agreement in which Level 3 has asked Qwest for specific language acknowledging what Level 3 believes are fundamental interconnection and related rights. These are discussed below.

1. Issue 1B: Interconnection Rights Pursuant to the Act.

In its proposed section 7.1.2, Qwest seeks to condition Level 3's right to interconnect on whether it has a "local customer" in the LATA. This proposal is problematic because the parties do not agree on what constitutes a "local" call or a "local" customer. Nothing in the Act requires "local" customers as an interconnection condition. But there is no need to litigate that issue. Instead, the best solution is to simply state that the parties will negotiate interconnection "in each LATA CLEC wishes to Interconnect pursuant to Sections 251 and 252 of the Act." This language will preserve Level 3's rights to interconnect under the Act as the Act is interpreted by this Commission, the FCC and the courts.

2. Issue 1B: Right to Interconnect at Any Technically Feasible Point.

In *its* proposed Section 7.1.2, Level 3, seeks the right to interconnect with Qwest's network via a DS1, DS3, OC-3 or other higher speed optical connection—as it deems efficient in a particular point. Qwest, however, seeks to limit Level 3's right to interconnection to the lower speeds – via a DS1 or DS3 facility. Qwest's proposal would allow Level 3 to interconnect using other technically feasible methods, but only through the Bona Fide Request (BFR) process and then only through a Qwest-provided facility. Qwest has offered no legitimate reason, and there is not, that would permit Qwest to limit Level 3's rights under the Act in this manner. OC-3 and higher level optical connections are common and technically feasible in the telecommunications industry, and there is no reason to treat them as anything other than one among many technically feasible interconnection methods. Further complicating matters, Qwest's language seems to suggest that Level 3 may only use the BFR process to order a

1 “product” already developed by Qwest. Ultimately, Qwest’s efforts to impose *any* restriction on
2 Level 3’s right to technically feasible methods of interconnection is inconsistent with the Act and
3 should be rejected.

4 **3. Issue 1B, 1D: Right to TELRIC Pricing.**

5 Also in Section 7.1.2, Level 3 wishes to be clear that when it chooses to interconnect with
6 Qwest via Qwest-ordered facilities, Level 3 may order such facilities under Sections 251 and 252
7 of the Act, at TELRIC prices, *or, at Level 3’s option*, through Qwest’s FCC Tariff 1. This
8 matters because the TELRIC pricing applicable to interconnection arrangements under the Act is
9 typically much lower than Qwest’s tariffed rates.¹³⁹ Similarly, in Section 7.2.2.1.2.2, Level 3
10 wishes to clarify that it has the option to establish a POI with Qwest by purchasing transport
11 services at TELRIC rates, or by ordering a private line other facilities from Qwest’s tariff. There
12 is no good reason for Qwest to oppose this language that serves to clarify rights that Level 3
13 indisputably possesses.

14 **4. Issue 20: Signaling Parameters for VoIP Traffic**

15 Section 7.3.8 requires Qwest and Level 3 to provide each other with the proper signaling
16 information per 47 CFR 64.1601 to enable each party to issue bills in a complete and timely
17 fashion. In particular, this section specifies that the provided signaling parameters will include
18 Calling Party Number (CPN), Originating Line Information Parameter (OLIP) on calls to 8XX
19 numbers, calling party category charge number, etc., and that any calls without the proper
20 substantiating information will be charged as interstate switched Access. The parties agree to the
21 language of this section with one exception. Level 3 had proposed that where VoIP traffic
22 lawfully originates but without CPN, it not be subject to penalties associated with intentional or
23 careless removal of CPN data.

24
25
26 ¹³⁹ The federal case from Missouri discussed above, *SBC v. Missouri PSC*, also addressed the question of pricing interconnection facilities and reaffirmed that when a CLEC uses entrance facilities for interconnection (as opposed to access to network elements) the ILEC must provide those facilities at TELRIC rates. *See id.*

1 Due to its technical nature, VoIP traffic may appropriately and lawfully lack CPN. An
2 example is where a computer (as opposed to a SIP phone) is originating a call and the VoIP
3 service the caller is subscribed to is outbound only—such as Skype.¹⁴⁰ This should not be of
4 concern to Qwest because, as explained above, Level 3 direct trunks to Qwest end offices.
5 Qwest will know where the traffic comes from because it will originate with Level 3. Moreover,
6 Level 3 would agree to provide billing parameters, compliant with EMI 11-01-01 records
7 showing such traffic as IP-originated. Lastly, Level 3 will terminate NPA-NXX codes not
8 homed to Qwest via separate arrangements with third party IXCs. In those cases, therefore,
9 Level 3 proposes that the traffic not be subject to penalties normally associated with intentional
10 or careless removal of CPN data.

11 **5. Issue 30: Single Set of Quad Links**

12 Level 3 proposed Sections 7.2.2.6.1-3 to govern provisioning of SS7 signaling. Section
13 7.2.2.6.1 establishes Level 3's right to choose, at its option, to obtain SS7 signaling from Qwest
14 under Qwest's tariff, from a third party, or to provide its own SS7 signaling via a single set of
15 Quad Links. Sections 7.2.2.6.2 and 3 provide that if Level 3 provides signaling by constructing
16 its own Quad Links, the parties will negotiate agreeable terms. Qwest's proposal, on the other
17 hand, would require the parties to set up and maintain separate sets of Quad Links for toll and
18 local traffic.¹⁴¹ Qwest's proposal should be rejected.

19 The SS7 network is part of the PSTN that allows switches and databases to communicate
20 with each other. Its main function is for call setup and take-down, but it is also used for database
21 look-up such as required by 800 service. SS7 Quad Links are the data links that connect two
22 SS7 networks. Without these links, neither Qwest nor Level 3 could complete calls to the other's
23 network.¹⁴²

24
25
26 ¹⁴⁰ Level 3/800, Greene/18.

¹⁴¹ Level 3/500, Ducloo/19.

¹⁴² Level 3/500, Ducloo/20.

1 Using a single set of links for both local and toll set up messages will save Qwest and
2 Level 3 transmission links and ports on their SS7 switches. Since transmission links and SS7
3 ports are already provisioned in a redundant manner for reliability purposes, the Qwest proposal
4 will waste a significant number of transmission links and ports on both networks, doubling the
5 links and ports that are needed.¹⁴³

6 There is no technical reason that Qwest even needs to distinguish between SS7 messages
7 relating to local calls and messages relating to toll calls, much less to require that such messages
8 be sent on separate facilities. To the extent that Qwest has a right to charge different amounts for
9 an SS7 message based on the nature of the call setting up, the same PLU and PIU factors that are
10 used to correctly bill access charges for the underlying calls themselves can be used to charge for
11 SS7 messages.¹⁴⁴ Nor is there any reason why SS7 used for toll traffic cannot be used for IP
12 traffic, as Qwest suggests.¹⁴⁵ Thus, the Commission should rule in favor of Level 3's proposed
13 language, which presents an efficient and fair way of managing the SS7 network, and saving
14 transmission links and SS7 switch ports in both the Level 3 and Qwest networks.

15 **IV. CONCLUSION**

16 As noted at the outset, one of the key issues in dispute between Qwest and Level 3 is the
17 proper compensation for ISP-bound calls. Level 3 has proposed a reasonable solution to this
18 problem, a solution that is at least as favorable to Qwest as the plans adopted in Washington,
19 Arizona and California. Indeed, by taking on more transport costs than CLECs do under the
20 California plan just approved by the 9th Circuit, Level 3 is clearly proposing a solution that is not
21 only fair, but one which is well within the bounds of what can reasonably be required of ILECs
22 under federal law, but still consistent with state law. Under Level 3's proposal, ISP-bound
23 traffic, which has no particular identifiable end point, will be treated as subject to the FCC's
24 \$0.0007 rate, but only where Level 3 picks that traffic up within the calling area of the
25

26 ¹⁴³ Level 3/500, Ducloo/20; Level 3/800, Greene/18.

¹⁴⁴ Level 3/500, Ducloo/21.

¹⁴⁵ *Id.*

1 originating Qwest end office – either on a DEOT for which it pays, or on its own facilities. For
2 the small portion of ISP-bound traffic that Qwest actually has to carry “on its own nickel”
3 outside a local calling area, Level 3 will exchange the traffic on a bill and keep basis until Level
4 3 completes facilities arrangements for the two LCAs where no Primary or Secondary POIs yet
5 exist. For these reasons, and also because the regulatory status of VoIP traffic is ambiguous and
6 confused in many of the same ways as the status ISP-bound traffic, it makes sense to extend the
7 same arrangement regarding compensation for ISP-bound traffic to VoIP traffic as well.

8 The second major issue in dispute between the parties is Qwest’s proposal to require
9 separate trunk groups to be established to carry different regulatory “types” of traffic. As
10 explained above, however, the photons and electrons that make up communications in a network
11 are unaware of what “type” they are, and network equipment does not recognize different
12 “types” either. All inter-carrier traffic along a particular route should be carried on a single,
13 integrated trunk group. Signaling data associated with individual calls can be used, either in real
14 time or after-the-fact, to properly allocate minutes to regulatory categories for billing purposes.
15 Qwest’s claims that this is problematic are overblown – all the other major ILECs seem to be
16 able to handle this issue.

17 //
18 //
19 //
20 //
21 //
22 //
23 //
24 //
25 //
26 //

1 Finally, the OPUC should adopt Level 3's proposals on the specific individual issues identified
2 in Section VI.

3
4 Respectfully submitted this 10th day of October, 2006

5 ATER WYNNE, LLP

6
7 By: /S/ _____
8 Lisa F. Rackner
9 Ater Wynne, LLP
10 222 SW Columbia St., Suite 1800
11 Portland, OR 97201
12 E-mail: lfr@aterwynne.com

13 LEVEL 3 COMMUNICATIONS, LLC

14 Erik Cecil
15 Senior Attorney
16 Level 3 Communications, LLC
17 1025 El Dorado Boulevard
18 Bloomfield, CO 80021-8869
19 E-mail: erik.cecil@level3.com

20 Christopher Savage
21 Cole Raywid & Braverman LLP
22 2nd Floor
23 1919 Pennsylvania Avenue NW
24 Washington, DC 20006-3458
25 E-mail: chris.savage@crblaw.com

26 Attorneys for Level 3 Communications, LLC