

BEFORE THE
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

IN THE MATTER OF LEVEL 3
COMMUNICATIONS, LLC'S PETITION
FOR ARBITRATION PURSUANT TO
SECTION 252(B) OF THE
COMMUNICATIONS ACT OF 1934, AS
AMENDED BY THE
TELECOMMUNICATIONS ACT OF 1996,
AND THE APPLICABLE STATE LAWS
FOR RATES, TERMS, AND CONDITIONS
OF INTERCONNECTION WITH QWEST
CORPORATION,

LEVEL 3 COMMUNICATIONS, LLC,

Petitioner.

Docket No. UT-063006

REPLY TESTIMONY OF

KENNETH L. WILSON

**ON BEHALF OF
LEVEL 3 COMMUNICATIONS, LLC**

SEPTEMBER 15, 2006

TABLE OF CONTENTS

I. INTRODUCTION 1

II. POINTS OF INTERCONNECTION..... 2

III. CALL ROUTING..... 2

**IV. SIMILARITIES AND DIFFERENCES BETWEEN LIS AND
FGD TRUNKS. 4**

V. CALL RECORDS AND BILLING..... 6

**VI. TRANSIT VERSUS QWEST’S UNE-P RETAIL PRODUCT,
“QWEST PLATFORM PLUS”..... 7**

1 **I. INTRODUCTION**

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

4 A. My name is Kenneth L. Wilson. I am a Senior Consultant and Technical Witness with
5 Boulder Telecommunications Consultants, LLC. My business address is 970 11th Street,
6 Boulder, Colorado, 80302. I am filing this testimony on behalf of Level 3
7 Communications, LLC (Level 3) of Broomfield, Colorado. I am the same Kenneth L.
8 Wilson who previously filed testimony in this case.

9 **Q. PLEASE STATE THE PURPOSE OF YOUR TESTIMONY.**

10 A. I am responding to claims made by Qwest witnesses in their "Replacement Direct
11 Testimony" filed August 18, 2006. It is my understanding that this new testimony, and
12 not the testimony they filed on May 30, 2006, constitutes their entire response. Thus, I
13 will not respond to the earlier version of their direct testimony. Moreover, we thoroughly
14 explored many of Qwest's issues during the August 24, 2006, technical conference and I
15 am limiting my comments only to areas where it appears that confusion still exists or
16 some corrections need to be made.

17 **Q. WHAT SPECIFIC AREAS DO YOU ADDRESS IN THIS TESTIMONY?**

18 A. Qwest makes several claims about recording, trunking, call-routing and billing systems.
19 Their testimony is not accurate. Their testimony appears to blend law, fact and opinion
20 that result in conclusions that are incorrect. Based on my extensive knowledge of the
21 Public Switched Telephone Network (PSTN), circuit switches, Internet protocol based
22 networks, Voice over Internet Protocol (VoIP) and the Level 3 and Qwest networks in
23 Washington, I address these issues below.

1 **II. POINTS OF INTERCONNECTION.**

2 **Q. MR. LINSE ARGUES AT PAGE 3 OF HIS REPLACEMENT DIRECT**
3 **TESTIMONY THAT THERE ARE TECHNICAL ISSUES RELATED TO**
4 **EACH PARTY BEARING ITS COSTS ON ITS SIDE OF THE POI. IS**
5 **THERE ANY TECHNICAL REASON THAT QWEST SHOULD BE**
6 **PERMITTED TO ALLOCATE ITS COSTS ON ITS SIDE OF THE POI TO**
7 **LEVEL 3?**

8 A. No. The issue of allocating the costs on each side of the POI is a financial and legal
9 issue. Technically speaking, the POI is the interface between Level 3's network and
10 Qwest's network. Each party manages and controls the facilities that make up its own
11 network, whether those facilities are built, purchased or leased. On its side of the POI,
12 Qwest is responsible for the management and control of its network facilities. Without
13 discussing the legal support for Level 3's position, Qwest is responsible for the costs of
14 the network on its side of the POI. Just as it would not make sense for Qwest to
15 undertake responsibility for the costs of Level 3's network on the Level 3 side of the POI,
16 it does not make sense to allocate the costs of Qwest's network to Level 3. Regardless,
17 any characterization of this issue as one of a technical nature is misleading.

18 **III. CALL ROUTING.**

19 **Q. MR. LINSE STATES AT PAGE 9 OF HIS TESTIMONY THAT QWEST'S**
20 **LOCAL TANDEM ARCHITECTURE DOES NOT HAVE THE**
21 **CAPABILITY OF ROUTING TOLL TRAFFIC. IS THAT TRUE?**

22 A. Most of Qwest's tandem switches currently route both local and toll traffic, albeit on
23 different trunk groups. These tandem switches are perfectly able to route both local and
24 toll traffic on the same trunk groups. Routing both toll traffic and local traffic on the
25 same trunk group is a billing issue, not a routing issue. In the rare case where Qwest has
26 a "Local Only" tandem switch, Level 3 will agree to only send local traffic to that switch.
27 A Local Only tandem switch is a switch that has no current connectivity to InterExchange
28 Carriers (IXCs) and is used exclusively by Qwest to route local calls. Level 3 has agreed

1 in other regions, with SBC, Verizon and Bell South, to route only local calls over
2 interconnection trunks to tandem switches that only handle local traffic. The same would
3 be true in the Qwest region.

4 **Q. IS MR. LINSE CORRECT IN THAT ARGUMENT THAT QWEST'S**
5 **LOCAL TANDEM ARCHITECTURE CAN NOT ROUTE TOLL**
6 **TRAFFIC?**

7 A. Mr. Linse's testimony is misleading. Qwest does not have a Local Tandem Architecture.
8 Qwest has a tandem switch architecture that generally handles both local and toll traffic.
9 In a few locations, Qwest has installed tandem switches that only handle local traffic.
10 Level 3 is not requesting, nor does it need to send long-distance traffic to those switches
11 as other tandems handle long-distance traffic for the same area and Level 3 has
12 connectivity to those other tandems. The fact that such local only tandem switches exist
13 does not impact Level 3's need to have Interconnection trunks that handle both local and
14 toll traffic. Mr. Linse's argument is a red herring.

15 **Q. MR. EASTON CLAIMS AT PAGES 23-24 OF HIS REPLACEMENT**
16 **DIRECT TESTIMONY THAT LEVEL 3'S SECTION 7.2.2.9.3.1 ALLOWS**
17 **JOINTLY PROVIDED SWITCHED ACCESS TO BE CARRIED OVER**
18 **LIS TRUNKS. IS THIS ACCURATE?**

19 A. No. First, let's examine Section 7.2.2.9.3.1. It states:

20 • 7.2.2.9.3.1 where CLEC exchanges Telephone Exchange Service, Exchange
21 Access Service, Telephone Toll Service, and ISP-bound Traffic and VoIP
22 Traffic with Qwest over an LIS interconnection network, CLEC agrees to pay
23 Qwest, on Qwest's side of the POI, state or federally tariffed rates applicable
24 to the facilities charges for InterLATA and/or IntraLATA traffic in proportion
25 to the total amount of traffic exchanged over such interconnection facility.
26 Otherwise each party remains 100% responsible for the costs of its
27 interconnection facilities on its side of the POI.

28 • Except as expressly provided in Section 7.3.1.1.3, each party shall bear all
29 costs of interconnection on its side of the network in accordance with
30 47 C.F.R. § 51.703. Accordingly, unless otherwise expressly authorized
31 according to Section 7.3.1.1.3, neither Party may charge the other (and neither

1 Party shall have an obligation to pay) any recurring and/or nonrecurring fees,
2 charges or the like (including, without limitation, any transport charges),
3 associated with the exchange of any telecommunications traffic including but
4 not limited to Traffic, ISP-bound and VoIP Traffic on its side of the POI.

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

7 As you can see from the text, it merely says that Level 3 can use its LIS network to
8 exchange ISP-bound and VoIP traffic. It also provides that Level 3 may terminate long-
9 distance traffic over its LIS network. Nothing in this permits traffic originating on
10 Qwest's network and routing to third-party IXCs nor traffic terminating to third-party
11 IXCs to which Level 3 is not interconnected directly to route onto the LIS network. As
12 Level 3 explained at the technical conference and in testimony, the trunks connecting
13 third-party IXCs are always left in place. Otherwise there is no way to connect them to
14 Level 3. Level 3 does not intend its language to change how jointly provided switched
15 access is routed today, nor does the language do so in my reading of it as an engineer.

16 **Q. IS THERE ANY OTHER REASON MR. EASTON WOULD CLAIM**
17 **LEVEL 3'S SECTION 7.2.2.9.3.1 ALLOWS JOINTLY PROVIDED**
18 **SWITCHED ACCESS TO BE CARRIED OVER LIS TRUNKS?**

19 A. Mr. Easton might be referring to situations where CLECs purchase unbundled switching
20 – which is now a retail product – from Qwest. I describe below why that is not a
21 concern.

22 **IV. SIMILARITIES AND DIFFERENCES**
23 **BETWEEN LIS AND FGD TRUNKS.**

24 **Q. YOU DISAGREE WITH MR. LINSE'S CLAIM THAT LIS AND FGD**
25 **TRUNKS ARE VERY DIFFERENT TYPES OF FEATURES. WHY?**

26 A. LIS and FGD switch features that perform nearly identical functions. Both create
27 “trunks” through designations in the switch. A “trunk” is the logical connection between
28 two switches. A “logical connection” means that the switch software allocates a

1 dedicated amount of capacity on an end-to-end link. So if the physical facility carrying
2 traffic is fiber optic, then a DS-1 is a 24 lane dedicated highway created out of the
3 capacity that is activated on that particular fiber optic link. In other words, regardless of
4 whether a DS-1 trunk group is created by LIS or FGD, that DS-1 (24 DS-0s) is the
5 equivalent of multiple lanes on the same highway connecting two locations. So,
6 regardless of trunk type, some lanes may be marked for traffic going north, some for
7 traffic going south, some for buses only, etc., or multiple trunks could be marked for
8 traffic going to the same destination. In other words, LIS and FGD “trunks” are merely
9 different designations in a switch that can be easily changed in a matter of seconds by a
10 switch provisioning person from a terminal linked to the switch. Changing a trunk group
11 designation from LIS to FGD is like changing an option on your computer from **bold font**
12 to *italics*.

13 **Q. HOW DIFFICULT IS IT TO PROGRAM A SWITCH TO ROUTE**
14 **SWITCHED ACCESS CALLS TO LIS TRUNKS?**

15 A. It is very easy. If Level 3 sends both long-distance traffic and local traffic to Qwest on a
16 LIS trunk, the Qwest switch will have no difficulty and requires no special programming
17 to route the traffic properly. If Qwest agreed to send both local and toll traffic to Level 3
18 on the same trunk groups, Qwest merely needs to instruct its switches to point both types
19 of traffic to the same LIS trunk group. This is no more difficult in the switch than
20 pointing the traffic to two different trunk groups. In fact, from the point of view of
21 routing in the switch, it is easier as there is no need to establish two different trunk groups
22 and segment traffic to each based on call type.

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V. CALL RECORDS AND BILLING.

**Q. MR. EASTON AND MR. LINSE CONTEND THAT QWEST CAN NOT
CORRECTLY BILL BOTH LOCAL AND LONG-DISTANCE TRAFFIC
ON LIS TRUNKS. DO YOU AGREE WITH THEM?**

A. No, I do not. Mr. Easton has testified that Qwest has developed the capability of correctly billing long-distance and local calls on FGD trunks. As I discussed above, there is basically no difference between FGD and LIS trunks. It would be a simple matter for Qwest to turn on recording capabilities in its switches for LIS trunks. This would be a simple “recent change” request for each LIS trunk group on each switch where there is an interconnection trunk with Level 3. Qwest could then process the resulting call record data in its billing systems in the same way it processes data today on FGD trunks for AT&T, MCI and other carriers that have combined local and toll traffic on FGD trunks. There would be no need to change the billing software as the features already exist. This would not be a difficult or an expensive change as the billing software was developed to meet the needs of AT&T, MCI and others. In fairness, Level 3 should get the same treatment on LIS trunks that Qwest is providing the other carriers on FGD trunks.

**Q. IS THERE ANOTHER WAY FOR QWEST TO CORRECTLY BILL
BOTH LOCAL AND TOLL TRAFFIC ON LIS TRUNKS?**

A. Yes. As Level 3 has stated before, Qwest could use PLU and PIU factors to bill each other for long-distance and local calling. Level 3 is doing this with SBC, with Verizon and with Bell South. Qwest has raised some objections to this process, but Level 3 had successfully worked out the details with the other RBOCs and there is no reason they can not work with Qwest to accomplish exactly the same thing.

1 **Q. WHICH OF THE TWO METHODOLOGIES IS BETTER?**

2 A. It doesn't really matter to Level 3. Level 3 will work with Qwest on either solution. The
3 point is to gain the efficiency of a single set of trunks at each switch, while not charging
4 Level 3 access rates for local traffic and for local trunking.

5 **Q. ARE THERE PROBLEMS IN BILLING THIRD-PARTY CARRIERS**
6 **WITH EITHER OF THESE METHODS?**

7 A. No, the problems Qwest raises are not problems at all. According to Mr. Linse (at
8 pages 20-21), Qwest needs to have the ability to generate billing records as it normally
9 would over FGD trunks in situations where Qwest is transiting switched access traffic to
10 a CLEC or independent company for termination. If the switch based recording and full
11 feature billing treatment is given LIS trunks (as Qwest does today for FGD trunks that
12 have mixed traffic) there is no issue. Qwest has testified that FGD trunks can do this
13 today, and as I state above, putting the same capabilities on a LIS trunk is straight
14 forward. As an alternative solution, Level 3 has agreed to route traffic that transits
15 through Qwest for termination by CLECs or independent companies over separate trunks
16 so that Qwest can continue providing such billing records as it does today. In its
17 proposed Section 7.2.2.3.5, Level 3 agrees to route over the LIS trunks only such
18 Telephone Toll and IP/TDM traffic that would route to NPA-NXX codes homed to
19 Qwest switches.

20 **VI. TRANSIT VERSUS QWEST'S UNE-P RETAIL PRODUCT, "QWEST**
21 **PLATFORM PLUS".**

22 **Q. SHOULD LEVEL 3 BUILD A SEPARATE INTERCONNECTION**
23 **NETWORK BASED UPON QWEST'S CLAIM THAT THEY WILL NOT**
24 **BE ABLE TO BILL FOR SMALL AMOUNTS OF TRAFFIC TO THEIR**
25 **WHOLESALE SWITCHING CUSTOMERS?**

26 A. No. Both Mr. Easton (at page 25-26) and Mr. Linse (pages 29-30) argue that Level 3's
27 transit limitation language does not work in situations where the NPA-NXX of the called

1 number homes to a wholesale customer of Qwest's wholesale switching services –
2 "Qwest Platform Plus" (QPP). In the first place, the amount of this traffic is very small.
3 Moreover, Qwest conceded during the technical conference that a simple solution exists.
4 Mr. Easton admitted that if Qwest would provide Level 3 with a table of those telephone
5 numbers that would be impacted by such a scenario, Level 3 would then be able to
6 identify which calls need to be routed over separate trunks in accordance with Level 3's
7 proposed contract language (*see* pages 266-67 of Transcript). That way the carriers can
8 screen for this small amount of traffic without having to burden Level 3 with the costs
9 and inefficiencies of two interconnection networks to do the job of the existing
10 interconnection network.

11 **Q. EVEN THOUGH QWEST CONCEDED THAT THERE WAS A SIMPLE**
12 **SOLUTION TO BILLING FOR THEIR UNE-P REPLACEMENT**
13 **PRODUCT, WHY DO THEY CONTINUE TO ARGUE THAT THEY**
14 **CANNOT PROVIDE LEVEL 3 WITH TELEPHONE NUMBERS FOR**
15 **CONFIDENTIALITY REASONS?**

16 **A.** Unless there is some specific legal or contractual requirement, I honestly have no idea
17 where this objection comes from. For network purposes telephone numbers are public
18 information. Moreover, carriers exchange this type of information on a daily basis in the
19 normal course of providing telecommunications services. The exchange of telephone
20 numbers is inherent to the ability to route calls between networks. EMI records contain
21 telephone numbers and carrier identifications. The QPP situation described by Mr. Linse
22 would be no different because providing Level 3 with the telephone numbers would
23 permit Level 3 to appropriately route the call in a manner that permits the terminating
24 carrier to bill for terminating access.

1 **Q. EVEN IF THERE ARE LEGAL OR CONTRACTUAL REASONS**
2 **PROHIBITING QWEST FROM PROVING TELEPHONE NUMBERS**
3 **ASSOCIATED WITH ITS QPP PRODUCT, CAN LEVEL 3 STILL**
4 **ACCOMMODATE THEIR CONCERNS IN A WAY THAT DOESN'T**
5 **REQUIRE LEVEL 3 TO BUILD OUT A SECOND INTERCONNECTION**
6 **NETWORK?**

7 A. Yes. As discussed during the technical conference, Level 3 has offered to provide Qwest
8 with Level 3's call records captured by Level 3's softswitch systems. Level 3 will format
9 call records according to industry-standard EMI format. Qwest would simply have to
10 load this data into their billing systems – as they do with other carriers – and process
11 these records. By doing so, Qwest could identify its QPP customer numbers without ever
12 having to disclose them to Level 3. Qwest would then be able to provide any necessary
13 billing information to its carrier customers purchasing that service. Those carriers in turn
14 would be able to identify particular calls as a jointly provided switched access and bill the
15 appropriate terminating access charges to the appropriate IXC. There is no technical
16 reason that Qwest cannot access and process such information if it were provided by
17 Level 3.

18 **Q. MR. LINSE STATES THAT THE SAME PROBLEM WOULD EXIST FOR**
19 **SITUATIONS WHERE QWEST HAS PORTED A TELEPHONE**
20 **NUMBER TO A CLEC. WOULD THE ARGUMENT YOU JUST**
21 **PROVIDED APPLY IN THOSE CASES AS WELL?**

22 A. Yes, this is the same situation and is readily resolved in the same manner.

23 **Q. BUT MR. EASTON CLAIMS AT PAGE 25 OF HIS REPLACEMENT**
24 **DIRECT TESTIMONY THAT QWEST'S SYSTEMS CAPTURE**
25 **"ACTUAL TRAFFIC INFORMATION" BUT LEVEL 3'S RELIES ON**
26 **FACTORS. CAN YOU EXPLAIN WHY THIS IS NOT A VALID**
27 **CONCERN?**

28 A. Although Mr. Easton's claims that Level 3's contract proposal relies upon factors, he
29 doesn't acknowledge that, as Mr. Greene explains, Level 3's softswitch systems capture
30 all of the call record detail. Again, Level 3 would keep this information and update

1 factors monthly, which is no different than how Qwest and AT&T exchanged local traffic
2 over Qwest's FGD network for the five years that Qwest's systems were not automated.

3 **Q. SO THERE IS NO TRUTH TO QWEST'S CLAIM THAT THEY MUST**
4 **REWORK ALL OF THEIR BILLING SYSTEMS IN ORDER TO**
5 **EXCHANGE ALL TRAFFIC OVER LIS TRUNKS, IS THERE?**

6 A. No, not in regard to how Level 3 proposes to accomplish it. Level 3 has solved all of
7 these issues with AT&T (SBC), Verizon and Bell South without significant costs to any
8 of the companies involved. There is no technical reason why we cannot solve the same
9 issues with Qwest in a similar manner.

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

11 A. Yes.