STATE OF IOWA

DEPARTMENT OF COMMERCE

UTILITIES BOARD

IN RE: LEVEL 3 COMMUNICATIONS, LCC, Petitioner, vs. QWEST CORPORATION, Respondent.	DOCKET NO. ARB-05-4

ARBITRATION ORDER

(Issued December 16, 2005)

BACKGROUND

Level 3 Communications, LLC (Level 3), asserts that it is in the process of enabling the next generation of Internet Provider (IP) enabled services, including Voice-over Internet Protocol (VoIP), nationwide. As such, Level 3 is attempting to establish a new interconnection agreement with Qwest Corporation (Qwest) for the provision of these new services in Iowa. Generally, Level 3 asserts that Qwest is attempting to use existing regulation to protect itself from intermodal competitors such as Level 3 and preserve its revenues and market share while Qwest claims that Level 3's goal is to maximize revenue recovery from Qwest (rather than from Level 3's customers) by attempting to obtain the use of Qwest's statewide network for free

for both Internet service provider (ISP) and VoIP traffic. Qwest and Level 3 are currently arbitrating similar issues in several other states, as well.

In its petition for arbitration, Level 3 set forth five unresolved "Tier One" issues that relate to the rates, terms, and conditions that will govern how Level 3 and Qwest interconnect their networks and compensate each other for the exchange of various types of traffic. The Tier One issues, according to Level 3, are the most fundamental interconnection issues. Level 3 also presented 17 "Tier Two" issues. Level 3 states that these Tier Two issues are derivative of fundamental points of business, law, and policy presented by the Tier One issues and the outcome of the five Tier One issues dictate the outcome of the Tier Two issues.

Following the hearing in this docket, the five Tier One issues have been narrowed to three primary issues: (1) interconnection architecture and cost responsibility related thereto; (2) Virtual NXX (VNXX) arrangements; and (3) intercarrier compensation for ISP-bound and VoIP traffic. This order will determine these three primary issues. Since the outcome of the 17 Tier Two issues remain dependent on the Board's decision in these three primary issues, the Board will not discuss the Tier Two issues individually. The parties should be able to determine the outcome of the Tier Two issues based on the Board's determinations in this order.

PROCEDURAL HISTORY

On June 3, 2005, Level 3 filed with the Utilities Board (Board) a petition for arbitration of unresolved terms in an interconnection agreement between Level 3 and Qwest. The petition was filed pursuant to the provisions of Board rules 199 IAC 38.4(3) and 38.7(3) and § 252(b) of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, Pub. L. No. 101-104, 110 Stat. 56 (1996) (hereinafter referred to as the "Act"). The petition has been identified as Docket No. ARB-05-4.

According to the petition, Level 3 requested negotiations with Qwest on December 25, 2004, to produce an agreement for interconnection services and network elements. Pursuant to 47 U.S.C. § 252(b)(1), either the incumbent local exchange carrier (ILEC) or the requesting carrier may petition a state commission to arbitrate any open issues by filing a request during the time period of 135 to 160 days after the date on which the request for negotiations was received. It is undisputed that the final date to petition for arbitration was June 3, 2005.

On June 13, 2005, the Board issued an order docketing the petition for arbitration and scheduled a pre-hearing conference. Qwest filed its response to the arbitration on June 17, 2005, pursuant to the deadline for responses established in the Board's June 13 order. Qwest supplemented its response on June 28, 2005.

On June 21, 2005, Level 3 and Qwest jointly filed a waiver of the provisions of 47 U.S.C. § 252(b)(4)(C) and a joint proposed procedural schedule. The proposed

procedural schedule extended beyond the time period within which a decision would normally need to be made pursuant to 47 U.S.C. § 252(b)(4)(C). As such, the parties jointly waived their rights to have the Board rule on the petition for arbitration within the time frame established by the federal statute. On June 30, 2005, the Board issued an order accepting the joint waiver and establishing a procedural schedule.

A hearing was held on August 30, 2005, for the purpose of receiving testimony and cross-examination of all witnesses. Both parties submitted initial briefs on September 20, 2005.

On September 29, 2005, Level 3 and Qwest filed a joint request to modify the procedural schedule, stating that they had been negotiating in good faith in an effort to reach a settlement on the terms and conditions of an interconnection agreement. Their request was granted by Board order issued September 30, 2005.

On October 14, 2005, Level 3 and Qwest filed another joint request to modify the amended procedural schedule, stating that they were still negotiating. Their request was granted by Board order issued October 18, 2005.

Reply briefs were filed by both parties on November 7, 2005, pursuant to the amended procedural schedule. A decision must be issued in this docket on or before December 16, 2005.

STANDARD FOR ARBITRATION AND REVIEW

This arbitration was conducted pursuant to 47 U.S.C. § 252, which states in part:

> (c) Standards for arbitration. In resolving by arbitration under subsection (b) of this section any open issues and imposing conditions upon the parties to the agreement, a State commission shall–
>
> (1) ensure that such resolution and conditions meet the requirements of section 251 of this title, including the regulations prescribed by the Commission pursuant to section 251 of this title;
>
> (2) establish any rates for interconnection, services, or network elements according to subsection (d) of this section; and
>
> (3) provide a schedule for implementation of the terms and conditions by the parties to the agreement.

47 U.S.C. § 252(c).

Additionally, 47 U.S.C. § 252(e)(1) requires that any interconnection agreement adopted by negotiation or arbitration shall be submitted to the state commission for approval. Section 252(e)(2)(B) provides that a state commission may reject any portion of an interconnection agreement adopted by arbitration "if it finds that the agreement does not meet the requirements of section 251, including the regulations prescribed by the Commission pursuant to section 251, or the standards set forth in subsection (d) of this section." Section 252(e)(3) further provides:

> (3) Preservation of authority. Notwithstanding paragraph (2), but subject to section 253 of this title, nothing in this section shall prohibit a State commission from establishing or enforcing other requirements of State law in its review of an agreement, including requiring compliance with intrastate telecommunications service quality standards or requirements.

ISSUE 1: INTERCONNECTION ARCHITECTURE AND RELATED COST RESPONSIBILITY

Level 3 seeks to interconnect with Qwest using a single point of interconnection (POI) per LATA at a location physically located on Qwest's network. Level 3 states that under this arrangement, Qwest will not have to build facilities to haul traffic to or receive traffic from Level 3. Level 3 suggests that this POI will be a "meet point" with each party responsible for costs and operations on its side of the POI.

Level 3 also states that the physical transmission medium for interconnection will be a high-capacity fiber optic facility and that Level 3 will work with Qwest to efficiently divide traffic into direct end office trunks (DEOTs). Level 3 states that DEOTs are software-based routing arrangements that allow traffic to or from particular Qwest end office switches to flow directly to and from Level 3 without using Qwest's tandem switch. Level 3 asserts that the use of DEOTs is the most technically efficient means of linking the two networks.

Qwest opposes Level 3's proposed language regarding these arrangements. Qwest states that this issue is not about a single POI, but rather is about Level 3's compensation to Qwest for the use of Qwest's network. Qwest states that it provides several technically feasible points of interconnection on its network and that each party must be able to retain responsibility for the management, control, and performance of its own network. In addition, Qwest seeks to split the traffic sent by Level 3 to Qwest into separate trunk groups based on regulatory classifications.

The Board's discussion on this issue will be divided into three parts. First, the Board will discuss the issue of a single POI per LATA. Second, the Board will discuss compensation for that interconnection. Third, the Board will discuss the commingling of various types of traffic over a single set of trunks.

A. SINGLE POINT OF INTERCONNECTION PER LATA

Level 3 Position

Level 3 states that the Act and rules promulgated by the Federal Communications Commission (FCC) require an incumbent local exchange carrier (ILEC) such as Qwest to permit interconnection at "any technically feasible point" on the ILEC's network. 47 U.S.C. § 251(c)(2). Level 3 cites several FCC rulings in support of the position that a CLEC has the option to interconnect at a single POI per LATA.[1] Level 3 also states that the single POI would be a "meet point," meaning that each party is responsible for the operation of, and costs associated with, the facilities and equipment on its side of the POI. Level 3 claims that a meet point interconnection arrangement is permitted under FCC rules and is one of the technically feasible methods of interconnection.[2]

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[1] See *In Re: Texas SBC 271 Proceeding*, CC Docket No. 00-65, ¶78 (Rel. June 30, 2000) (holding that a CLEC has the option to interconnect at only one technically feasible point in each LATA); *In Re: In the Matter of Developing a Unified Intercarrier Compensation Regime,* "Notice of Proposed Rulemaking," CC Docket No. 01-92, ¶ 112 (Rel. April 27, 2001) (holding that an ILEC must allow a requesting carrier to interconnect at any technically feasible point, including the option to interconnect at a single POI per LATA); and "FCC Memorandum Opinion and Order," CC Docket Nos. 00-218, 00-249, 00-251, at ¶ 52 (Rel. July 17, 2002) (holding that CLECs may request interconnection at any technically feasible point including a single POI per LATA).

[2] 47 C.F.R. § 51.321(b).

Level 3 states that the language Qwest proposes in this regard implies that Level 3 may be required to establish multiple POIs within a LATA or that Qwest retains the right to claim that more than one POI is needed in some circumstances. Level 3 is concerned that Qwest's language may result in a refusal by Qwest to interconnect or may result in additional charges to Level 3.

Qwest Position

Qwest's position on this issue is that it is not about whether Level 3 is entitled to interconnection at a single POI within the LATA. Rather, Qwest states that this issue is really about compensation for the use of Qwest's network. Qwest does not dispute that it has a duty to provide CLECs with interconnection to its local exchange network in accordance with Section 252 of the Act. Qwest states, however, that there are three types of interconnection and that its proposed language anticipates all three: 1) when a CLEC builds facilities to a Qwest central office where it has collocation; 2) when the CLEC purchases entrance facilities from a Qwest central office to the CLEC's nearest premise; and 3) when both parties build to a meet point. Qwest states that each of these three options has its own compensation and that its proposed language includes the compensation rules for each of these three scenarios.

Analysis

Qwest and Level 3 agree that the Act allows Level 3 to interconnect with Qwest's network at a single POI per LATA at any technically feasible point. Level 3's

concern is that the alleged ambiguity of Qwest's proposed language may give Qwest the right to claim that more than one POI is needed in some circumstances. The Board finds that while Qwest's language may not be as explicit as Level 3 would prefer, the language does not preclude Level 3 from establishing a single POI per LATA and both parties agree that Level 3 has that right. Qwest's language, however, does provide additional flexibility to the parties should a situation arise where more than one POI is appropriate. The Board will approve Qwest's proposed language regarding a single POI.

B. COMPENSATION FOR THE INTERCONNECTION

Level 3 Position

Level 3 states that its proposed language identifies the single POI as a "meet point" and under a meet point arrangement, each party is responsible for the operation of, and costs associated with, the facilities and equipment on its side of the POI. According to Level 3, under this kind of arrangement, each party pays the other for terminating traffic, but neither party can export its traffic origination costs to the other; each party's end users are responsible for paying the cost of the traffic they originate.

Level 3 asserts that its proposed language plainly states that it will pay "intercarrier compensation in accordance with Applicable Law," which includes both reciprocal compensation and access charges. However, Level 3's proposed language also makes clear with respect to originating access charges for toll calls

where Level 3 is the interexchange carrier (IXC), that Level 3 will not pay Qwest when Level 3 carries calls originated by Qwest's customers. Level 3 states that paying for Qwest's facilities to reach the single POI would also be considered paying for traffic originated by Qwest's customers.

In support of its position in this regard, Level 3 cites federal regulations, which define a meet point as being "a point of interconnection between two networks … at which one carrier's responsibility for service begins and the other carrier's responsibility ends." 47 C.F.R. § 51.5. In addition, Level 3 states that the FCC has specifically prohibited a LEC from charging an interconnected carrier for the privilege of receiving traffic that the LEC originates. Level 3 cites to 47 C.F.R. § 703(b), which states that "[a] LEC may not assess charges on any other telecommunications carrier for telecommunications traffic that originates on the LEC's network." With respect to any shared facilities, Level 3 states that federal regulations provide that the interconnecting carrier, Level 3, can only be charged for such shared facilities based on the proportion of its capacity that Level 3 actually uses. 47 C.F.R. § 51.709(b).

Qwest Position

Qwest states that § 252(d)(1) of the Act provides that determinations by a state commission of the just and reasonable rate for interconnection shall be "based on the cost … of providing the interconnection" and "may include a reasonable profit." Qwest states that the FCC has recognized that CLECs must compensate ILECs for

the costs that ILECs incur to provide interconnection,[3] which is true even when the costs are incurred on Qwest's side of the POI.

Qwest also states that Level 3 erroneously relies on rule 51.703(b) in support of its position. Qwest states that this rule is not applicable in this matter because the term "telecommunications traffic" as used in the rule has been defined by the FCC to exclude "information access traffic." 47 C.F.R. § 51.701(b)(1). Qwest also states that ISP-bound traffic, which is the kind of traffic that Level 3 intends to transport, is considered by the FCC to be "information access traffic."

Qwest states that whether Level 3 will incur expense on Qwest's side of the POI will depend on the form of interconnection that Level 3 chooses. Qwest states that if Level 3 chooses a mid-span meet point as its form of interconnection, each party is responsible for its portion of the facilities built to reach the POI. Qwest also states, however, that in the event Level 3 requires an entrance facility to bring its traffic from the POI to the Qwest switch, Level 3 will be required to pay for its use of that facility.

Analysis

The record demonstrates that both parties agree that each party is responsible for costs on its side of the meet point if a mid-span meet point is used. Level 3 appears to apply the meet point analysis to all types of interconnection. The Board agrees with Qwest's analysis that different types of interconnection require different

[3] *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, "First Report and Order," 11 FCC Rcd 15499 (1996) (*Local Competition Order*).

compensation schemes and that § 251(c)(2)(b) of the Act requires Level 3 to compensate Qwest for certain interconnection costs. The Board will approve Qwest's proposed language regarding compensation for interconnection.

C. TRAFFIC ORIGINATION CHARGES – RELATIVE USE FACTOR

Level 3 Position

Level 3 states that no relative use factor (RUF) charges should ever apply between Qwest and Level 3 because Level 3 will be establishing direct physical connections to Qwest at the POI and, as a result, there are no shared facilities to which any RUF should apply. Level 3 argues that Qwest's proposed language appears to apply the RUF to facilities that are entirely within Qwest's network and that such a proposal is inappropriate.

Level 3 also states that Qwest's proposed calculations using RUF violate the FCC's rules. Level 3 states that the governing FCC rule, 47 C.F.R. § 51.709(b), states that Qwest shall recover only the proportionate cost of trunk capacity it supplies and Level 3 uses to send traffic that will terminate on Qwest's network. Level 3 asserts that this rule does not give Qwest the right to charge Level 3 for capacity between the two networks in the abstract. Level 3 argues that this rule provides that Level 3 can only be charged for the proportionate amount of capacity it sends to Qwest and that it does not matter the kind of traffic that Level 3 sends to Qwest, merely that Level 3 has to pay Qwest for what it uses.

Qwest Position

Qwest states that any expense incurred by Level 3 due to the construction of facilities on Qwest's side of the POI depends on the form of interconnection that Level 3 chooses. Qwest concedes that a mid-span meet point will not utilize a RUF, but that the choice of an entrance facility will require Level 3 to pay for its use. Qwest also states that Level 3 may require direct trunked transport facilities, depending on whether interconnection facilities are extended directly to end offices, and the allocation of the cost of these facilities would be subject to the RUF. Qwest asserts that Level 3 has not satisfactorily addressed why it proposes to eliminate all references to the RUF from the agreement when such language has been approved in multiple Iowa interconnection agreements and has been approved by the FCC, particularly given that Level 3 testified that a RUF should be used to allocate the cost of jointly used facilities, entrance facilities, and direct trunked transport. (Tr. 33-34).

Qwest states that ISP-bound traffic should not be included in the RUF. Qwest states that the Board ruled on this issue in the *AT&T Arbitration Order*,[4] holding that Internet-related traffic should be excluded from the relative use of entrance facilities. Qwest states that the Board concluded that including traffic destined for the CLEC's ISP customers in the RUF calculation creates uneconomic incentives and is contrary to public policy and § 252(d)(1). Qwest further asserts that state commissions in

[4] *In Re: Arbitration of Qwest Corporation and AT&T Communications of the Midwest, Inc., and TCG Omaha*, Docket No. ARB-04-1 (issued June 17, 2004) (*AT&T Arbitration Order*).

Colorado, Arizona, Utah, and Oregon have also determined that ISP traffic should be excluded from the RUF calculation.

Analysis

The parties agree that RUF does not apply to an interconnection situation that involves a mid-span meet point. Furthermore, they appear to agree that RUF can be used to allocate the cost of jointly used facilities, entrance facilities, and direct trunked transport. Qwest argues that Level 3 may require interconnection at entrance facilities and, if so, a RUF is also applicable to this type of interconnection. Finally, Qwest states that if a RUF is used, then ISP traffic should be excluded from the calculations.

The Board finds that the inclusion of a RUF to handle the allocation of jointly used facilities, entrance facilities, and direct trunked transport, if Level 3 opts for a form of interconnection requiring these features, is reasonable. The inclusion of language regarding the use of an RUF may help to avoid future problems regarding whether the agreement actually covers this type of compensation for various forms of interconnection.

The Board has addressed the exclusion of ISP traffic from RUF calculations in Docket No. ARB-04-1. In that decision, the Board held that (1) the FCC has not explicitly determined whether ISP-bound traffic should be included in RUF calculations; (2) the FCC did not address this issue in the context of Qwest's § 271 proceeding; (3) the inclusion of this traffic would cause Qwest to incur a substantial

increase in its apportionment of costs; (4) this outcome is a violation of § 252(d)(1) of the Act regarding just and reasonable rates; and (5) the public interest would best be served by excluding ISP traffic. The Board finds that there is nothing in this record that changes the Board's previous determination about ISP-bound traffic and RUF calculations. Therefore, the Board will approve Qwest's proposed language regarding traffic origination charges and the use of a RUF.

D. TRAFFIC COMMINGLING – FEATURE GROUP D TRUNKS VERSUS LIS TRUNKS

Level 3 Position

Level 3 states that it agrees with Qwest regarding the establishment of separate trunks (DEOTs) to carry traffic between Level 3 and particular Qwest end office switches when traffic exceeds a certain volume threshold. Level 3 also states that it generally agrees with Qwest in that it is acceptable to include different types of traffic on the same physical trunk group. However, Level 3 argues that Qwest distinguishes between Feature Group D (FGD) trunks and local interconnection service (LIS) trunks and that Qwest is willing to receive all types of traffic from Level 3 over FGD trunks, but is unwilling to permit switched access traffic to terminate on LIS trunks. Level 3 states that it does not provide retail toll services and should be allowed to send all of its traffic over LIS trunks. Level 3 states that its proposed language allows all traffic types to exchanged over a single trunking network regardless of whether it is comprised of LIS trunks or FGD trunks.

Qwest Position

Qwest states that it has agreed to allow all traffic, except for switched access traffic, to be carried over LIS trunks. Qwest also states that it has given Level 3 the option of combining all traffic types on FGD trunks. Qwest asserts that switched access traffic should be carried over FGD trunks for three reasons. First, Qwest states that switched access traffic must be exchanged over FGD trunks in order to allow Qwest to provide industry standard terminating records to independent telephone companies, CLECs, and wireless service providers. Without these records, these independents, CLECs, and wireless providers will not be able to bill Level 3 for interexchange traffic that a Level 3 customer originates. Second, Qwest states that it has the ability to receive all types of traffic over FGD trunks and that by routing all traffic over FGD trunks, Level 3 will achieve the same trunk efficiencies that would be gained by routing all traffic over LIS trunks, but without disabling Qwest's billing systems. Third, Qwest states that switched access traffic should be exchanged over FGD trunks in order to comply with § 251(g) of the Act. Qwest states that under § 251(g), Qwest is required to provide interconnection for the exchange of switched access traffic in the same manner that it provided interconnection for such traffic prior to passage of the Act, meaning exchange over FGD trunks. Qwest also contends that the cost to enable LIS trunks to record switched access traffic would be substantial.

Analysis

Level 3 states that it wants to commingle all forms of traffic on LIS trunks, including switched access traffic subject to access charges. Qwest states that LIS trunks do not provide the functionalities it needs for proper rating and billing reports it supplies to rural LECs. The record demonstrates that LIS trunks are not set up to handle switched access service. They would also have difficulty handling certain types of VoIP traffic and would require costly overhauls of Qwest's and other LECs' billing systems. The Board finds that there is a need for the functionalities that FGD trunks offer and, therefore, the Board will approve Qwest's proposed language regarding the commingling of traffic.

ISSUES 2 AND 3: VNXX ARRANGEMENTS AND INTERCARRIER COMPENSATION

The determination the Board must make regarding VNXX arrangements is whether Level 3 can use such arrangements for the origination and termination of ISP-bound and VoIP traffic. Inextricably intertwined with this outcome is the kind of intercarrier compensation that should apply if Level 3 is permitted to utilize VNXX. Therefore, both issues will be discussed together.

The main area of dispute between Level 3 and Qwest in this arbitration centers around the issue of intercarrier compensation for two particular types of traffic: (1) calls that Qwest end users make to ISPs served by Level 3, and (2) calls that Qwest end users either make or receive by means of VoIP providers that

connect to the public switched telephone network (PSTN) through Level 3. Level 3 states that ISP-bound traffic, VoIP traffic, and VNXX-routed ISP-bound traffic should all be subject to a single uniform compensation rate applied reciprocally. Qwest states that Level 3's proposal exploits the one-way traffic flow of ISP traffic and manipulates the North American Numbering Plan.

A. BACKGROUND OF VNXX

A VNXX occurs when a CLEC assigns a “local” rate center code to a customer physically located in a “foreign” rate center. For example, a customer physically located in Ames might order a phone number from Level 3 with a Des Moines NXX rate center code. Calls between that Ames customer’s phone and other Des Moines area customers would be treated as if they were local calls, even though the calls between Des Moines and the customer’s physical location in Ames is a distance of some 30 miles. Thus, under Level 3's VNXX arrangement, all Des Moines customers would be paying a flat, monthly, local rate, even though they are calling Level 3's Ames customer. When those same customers call Qwest’s Ames customers, served out of the same central office as Level 3's Ames customer, they are charged toll charges.

A VNXX call also raises questions regarding the efficient use of the network. In a regular local exchange calling scenario with an ILEC and a CLEC, if the call volumes between Qwest’s customers in Ames and Level 3's customers in Ames reach a certain level, both Qwest and Level 3 would have an economic incentive to

establish a new or additional POI in Ames, in order to save the costs of hauling calls to and from the POI in Des Moines. In a VNXX situation, however, Level 3 would never have an incentive to establish a POI in Ames, no matter what the traffic level, because Qwest would be doing all the hauling of traffic from Ames to Des Moines.

For purposes of this case, "VNXX-routed ISP-bound traffic" describes a situation wherein Level 3 obtains numbers for various locations within a state. Those numbers are assigned by Level 3 to its ISP customers even though the ISP has no physical presence within the local calling area (LCA) associated with each of those telephone numbers. ISP-bound traffic directed to those numbers is routed to Level 3's POI and then delivered to the ISP at a physical location in a different LCA than the one to which the number is assigned.

In the past, the Board has not approved the use of VNXX architecture in certain applications. *In re: Sprint Communications Company L.P. and Level 3 Communications (LLC)*, "Final Decision and Order," Docket Nos. SPU-02-11 and SPU-02-13 (issued June 6, 2003),[5] the Board determined that "VNXX is not an authorized local service and the proposed use of telephone numbers would be inconsistent with applicable industry standards and guidelines." (*Sprint/Level 3 Decision*, p. 1). However, in that order the Board also determined that VNXX or similar services may be appropriate and useful if offered by alternative means that

[5] Hereafter referred to as *Sprint/Level 3 Decision*.

addressed the Board's concerns regarding efficient use of telephone numbering resources and intercarrier compensation. (Id.)

In addition, the Board also denied Level 3 a certificate of public convenience and necessity earlier this year concluding that "the services Level 3 proposes to offer [i.e., VNXX] do not appear to be the type of service intended to be regulated under a § 476.29(1) certificate." (*In re: Level 3 Communications, LLC*, "Order in Lieu of Certificate," Docket No. TF-05-31, Issued June 20, 2005). As part of that order, the Board stated that while a certificate would not be issued to Level 3, Level 3 would be authorized to obtain telephone-numbering resources for use in providing certain wholesale services. (Id., p. 6). The Board based its decision in part on Level 3's assertion that it would not "use telephone numbering resources to provide dial-up ISP-bound non-voice traffic using a Virtual NXX architecture until such time as this Board, the Federal Communications Commission, or any court of competent jurisdiction in Iowa issues a final ruling, no longer subject to appeal, that such use of numbers is permitted." (Id., pp. 5-6).

In this arbitration, the record demonstrates that both Qwest and Level 3 agree a VNXX call originates in one LCA and terminates in another. The record also demonstrates that Level 3 and Qwest agree that with VNXX, the physical location of the end-user customer who is being called bears no relationship to the local number that is assigned to the call. Where the parties are in dispute is in the determination of compensation and trunking for VNXX traffic.

Level 3 Position

Level 3 states that it seeks to use VNXX arrangements for the origination and termination of ISP-bound traffic and VoIP traffic, over which, Level 3 claims, the FCC has exercised substantial (if not exclusive) jurisdiction.[6] Level 3 states that as a practical matter, the location of the calling and called parties is unknown, unknowable, or simply indeterminate, and that the interstate nature of this traffic means that the Board should look to federal statutory and regulatory provisions to determine whether VNXX arrangements should be permitted and which intercarrier compensation arrangements should apply.

Level 3 states that the Board should permit its use of geographically independent telephone numbers, specifically VNXX, for Level 3's VoIP and ISP-bound services. Level 3 states that it believes the Board's past reluctance to endorse VNXX for use with ISP-bound traffic has been based on three concerns: (1) an interest in retaining a connection between an NXX and a specific geographic community; (2) concerns about potential exhaust of numbering resources; and (3) concerns about whether use of VNXX provided fair intercarrier compensation.

In response to those concerns, Level 3 states that the connection between an NXX code and a small, geographically determined community is no longer relevant.

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[6] Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 Inter-Carrier Compensation for ISP-Bound Traffic, *Order on Remand and Report and Order*, 16 FCC Rcd 9151 (2001) (*"ISP Remand Order"*) at ¶¶ 52-65 (hereinafter *ISP Remand Order)*; Vonage Holdings Corporation, *Memorandum Opinion and Order*, WC Dkt. No. 03-211 (rel. Nov. 12, 2004. (hereinafter *Vonage Ruling*).

Level 3 states that NXX codes were introduced to identify particular PSTN switches, but that for the last several years that purpose has steadily eroded and is now essentially gone. Level 3 states that the introduction of the enhanced service provider (ESP) exemption[7] allowed access to distant computer services by means of dialing a local telephone number. In addition, Level 3 states that the connection between NXX codes and location began crumbling with the widespread growth of wireless services and continued to crumble with the development of IP-based telephony.

Level 3 also asserts that the Board's previous concerns about number utilization have been addressed by Level 3's VoIP offerings. Level 3 argues that the use of numbering resources is no longer a significant concern regarding VNXX arrangements for voice traffic and that to the extent there is a concern about the use of number resources, it has been in the context of ISP-bound traffic.

Level 3 contends that since the Board has granted authority for Level 3 to provide voice services, Level 3 needs to open one or more blocks of numbers for its VoIP services. Level 3 asserts that its utilization of numbering resources will track that of any other voice carrier and in this situation, using a small handful of additional numbers from the same block for ISP-bound local routing numbers (LRNs) is not even a noticeable impact.

[7] See Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, *Order*, 3 FCC Rcd. 2631 (1988), at ¶ 2 n.8; ¶ 20 n. 53).

Level 3 also states that the Board can manage the intercarrier compensation aspects of VNXX in part because there is no real cost to Qwest. Level 3 asserts that the record in this proceeding demonstrates that Level 3's use of VNXX arrangements, including for ISP-bound calling, does not place any additional material costs on Qwest. (Level 3 Brief, p. 39). Level 3 states that under its proposed contract, all Level 3 terminated traffic will be carried by Qwest to the single POI for that LATA, which is true whether VNXX is used or whether the call is a voice call or an ISP-bound call. Level 3 asserts that Qwest's only task is to properly route the traffic to the single POI and that task is the same for all Qwest-originated locally-dialed calls whether VNXX, VoIP, or ISP-bound. Level 3 states that the record shows that the cost to Qwest of performing this task is close to zero. (Level 3 Brief, p. 39).

As an overall matter, Level 3 asserts that in establishing the terms of an interconnection agreement, the Board must apply the directives of §§ 251 and 252 of the Act and related FCC rulings. Level 3 asserts that federal regulations require numbers to be made available in a manner that accomplishes three purposes: (a) facilitating entry into the market; (b) not unduly favoring any particular group of consumers or providers; and (c) not unduly favoring any particular technology. 47 C.F.R. § 52.9(a). Level 3 also claims that Qwest is seeking to damage Level 3's ability to enter the market by denying Level 3 the right to use numbering resources for its IP-based services.

Qwest Position

Qwest states that Level 3's claim that "VNXX should not be a cause of concern to the Board because it does not place any material additional costs on Qwest" is not true and is based on the false premise that there is no difference between local traffic and interexchange traffic. Qwest states that in making this argument, Level 3 ignores the investments that Qwest has made in its switches and interoffice facilities throughout Iowa. Qwest states that its equipment must be maintained, repaired, and augmented when traffic exceeds capacity and that the FCC has indicated that Qwest is entitled to a reasonable return on those assets pursuant to 47 U.S.C. § 252(d) and the FCC's forward-looking total element long-run incremental cost (TELRIC) methodology.

Qwest also states that the question before the Board is not really a cost issue as Level 3 presents, but rather a question of the proper intercarrier compensation mechanism to apply to interexchange calls. Qwest asserts that if the cost of transport is essentially free as suggested by Level 3, then there is nothing to prevent Level 3 from building its own facilities to any area it wishes to serve in Iowa. Qwest states that Level 3 should not be allowed the free use of Qwest's network.

Qwest asserts that by using its authority as a CLEC to obtain local numbers throughout a LATA and providing those numbers to its ISP customers located outside the caller's local calling area, Level 3 creates a circumstance where calls appear to be local but in any other context would be interexchange calls, thus fooling the billing

system and avoiding the payment of appropriate charges for the use of Qwest's network to carry interexchange traffic. Qwest explains that this re-routing of the billing system occurs because the toll and access charges billing systems are activated by the customer dialing “1+” at the inception of the call; VNXX, however, allows the customer to dial a “local” number and avoid routing the call to the customer’s interexchange carrier (IXC). Qwest states that it cannot know in advance whether the local number being dialed is a number assigned to a real customer in the same local calling area as the calling party or whether it is a number assigned by Level 3 to an ISP whose modems are located in some other LCA.

Qwest also states that the ESP exemption discussed by Level 3 did not end the relevance of LCAs. Qwest asserts that the ESP exemption recognizes that certain ESPs are treated as though they are end users and, as such, access charges do not apply to them for originating and terminating traffic in the LCA in which they obtain service. Qwest further states that Level 3's argument that wireless service also contributed to the relevance of LCA’s is equally irrelevant, as this docket is not related to wireless service.

Qwest's position regarding intercarrier compensation for ISP traffic is that the FCC's integrated intercarrier compensation regime excludes ISP-bound calls that are dialed on a VNXX basis and that it is acceptable to exchange all ISP-bound traffic on a bill and keep basis. Qwest states that the FCC's decision regarding ISP-bound traffic in the *ISP Remand Order* comprises only those circumstances where an ISP

modem bank or server is physically located in the same LCA as the end user customer initiating an Internet call. Qwest argues that the *ISP Remand Order* defines ISP-bound traffic to comprise only those situations in which the customer initiating an Internet call and the ISP equipment to which that call is directed are located in the same calling area.

Analysis

As discussed earlier, the Board has been careful in the past regarding the use of VNXX arrangements in Iowa for ISP-bound non-voice traffic. (See Docket Nos. SPU-02-11, SPU-02-13, "Final Decision and Order" issued June 6, 2003, and Docket No. TF-05-31, "Order in Lieu of Certificate" issued June 20, 2005). The Board has been primarily concerned with the inefficient use of numbering resources and fair intercarrier compensation when determining whether to approve VNXX arrangements. (Id.)

Level 3 states that the FCC specifically addressed the intercarrier compensation regime for ISP-bound calls. Level 3 asserts that in the *ISP Remand Order*,[8] the FCC affirmed its interstate jurisdictional authority over ISP-bound traffic as a form of information access and set up a special intercarrier compensation regime applicable to it. Level 3 states that under that regime, ISP-bound traffic and non-toll traffic are to be treated the same with the specific rate chosen by the ILEC. According to Level 3, under the FCC's rule, the ILEC can choose whether the rate

[8] *ISP Remand Order*, at ¶¶ 77-78.

that applies is a state-determined "reciprocal compensation" rate or the FCC's own rate, now $0.0007 per minute, but the same rate applies to all non-toll traffic.

Level 3 also states that the *ISP Remand Order* not only eliminated discrimination against ISP-bound traffic, it fully embraced VNXX-routed ISP-bound traffic. Level 3 states that commentors in the *ISP Remand Order* docket, including Qwest, discussed VNXX arrangements in their attempt to pay for ISP-bound traffic at a lower rate. Level 3 states that the FCC's awareness of VNXX in this context indicates that the FCC understood that ISP-bound traffic includes VNXX-routed ISP-bound traffic. Level 3 also asserts that there is nothing in the FCC's rules that suggests this traffic should be excluded

Level 3 argues that the descriptions of ISP-bound traffic used by the FCC and the D.C. Circuit are not intended to place a geographical limitation on the placement of ISP servers or modem banks. But this argument ignores the fact that there are repeated references in the *ISP Remand Order* clarifying that the FCC was only addressing the situation where an ISP server or modem bank be located in the same LCA as the end-user customer initiating the call. (*ISP Remand Order* at ¶¶ 10, 13, 24).

Level 3 also suggests the fact that VNXX calls are locally dialed is sufficient to bring those calls within the FCC’s definition of ISP-bound traffic, and as long as an end-user customer makes a seven-digit call to access an ISP, it is unnecessary to impose a geographical limitation on the location of the ISP’s server/modem bank.

But, this argument is inconsistent with the characterization of ISP-bound traffic that has been used by the FCC in the *ISP Remand Order*, as described above.

In addressing the Board's concern about the exhaustion of numbering resources, Level 3 argues that the use of numbering resources is no longer a significant concern regarding VNXX arrangements for voice traffic. In the *Sprint/Level 3 Decision* issued in 2003, the Board determined that for a new exchange, the VNXX entity (Level 3) must have a separate set of 10,000 numbers (1,000 in exchanges with thousands-block number pooling (TBNP)) even though the VNXX entity will only use a small portion of those numbers. (*Sprint/Level 3 Decision*, p. 22). That concern was somewhat alleviated in the Board's 2005 decision which gave Level 3 many of the rights, privileges, and obligations associated with a certificate. (*In Re: Level 3 Communications, LLC,* "Order in Lieu of Certificate" Docket No. TF-05-31, issued June 20, 2005). In that order, the Board permitted Level 3 to seek numbers from the North American Numbering Plan Administrator (NANPA), provided that "Level 3 will not use telephone numbering resources obtained pursuant to this order to provide dial-up ISP-bound non-voice traffic using a Virtual NXX architecture ... ." (Id., pp. 5-6). The Board further finds that the fact that Qwest offers TBNP in each of its exchanges also goes some way toward alleviating those numbering efficiency concerns, at least in Qwest's exchanges.

However, the final Board concern regarding the provisioning of VNXX addressed by Level 3 is that of an appropriate intercarrier compensation scheme.

That issue will be discussed in greater detail below, but for the moment it is sufficient to say that the Board does not agree with Level 3's assertion that the FCC addressed this issue in the *ISP Remand Order*. First, as described above, the FCC order is addressed only to calls to ISPs within the same LCA as the calling party. Second, the FCC order provides for payment by the receiving carrier (Qwest, in this case) to the originating carrier (Level 3), the opposite of the direction in which the payments should be made. This is further evidence that the FCC's *ISP Remand Order* is not addressed to VNXX traffic.

The record demonstrates that the most important of the Board's concerns regarding the implementation of VNXX architecture in Iowa intercarrier compensation, is still relevant and the parties have offered little to alleviate that concern. As such, the Board will adhere to its previous position regarding the implementation of VNXX architecture by Level 3 and holds that VNXX is not an authorized local service, but that VNXX may be appropriate and useful if offered by means that adequately address the Board's concerns regarding intercarrier compensation.

The Board finds that ISP-bound traffic does not include VNXX-routed ISP-bound traffic. The FCC has consistently described ISP-bound traffic as "the delivery of calls from one LEC's end-user customer to an ISP in the same local area that is served by the competing LEC."[9] This definition was also adopted by the D.C. Circuit in both the *Bell Atlantic* and *WorldCom* decisions. Despite Level 3's argument that

this description of ISP-bound traffic was not meant to place a geographic limitation on the placement of ISP servers or modem banks, the FCC has consistently held that an ISP server or modem bank be located in the same LCA as the end user customer initiating the call. In addition, the FCC has consistently held that ISP-bound traffic is predominately interstate for jurisdictional purposes.[10]

The Board finds that Level 3's interpretation of the *ISP Remand Order* and the D.C. Circuit's *WorldCom* decision does not advance Level 3's position regarding VNXX traffic. Because VNXX-routed ISP-bound traffic does not fall within the FCC's definition of ISP-bound traffic, it is irrelevant whether ISP-bound traffic is telecommunications traffic subject to reciprocal compensation as Level 3 asserts. In addition, despite Level 3's assertion that VNXX calls are locally dialed because the end user makes a seven-digit call to access an ISP, this is not enough to bring these calls within the definition used by the FCC and the D.C. Circuit.

In determining the proper compensation scheme for ISP-bound traffic in a single calling area, the Board turns to the *ISP Remand Order* where the FCC determined that the reciprocal compensation mechanism that is applied to local telecommunications traffic should not apply to ISP-bound traffic. The FCC also determined that a more economically efficient cost recovery mechanism for ISP-bound traffic would be a bill and keep mechanism. However, the FCC did not require carriers to do a flash-cut to a bill and keep mechanism and ordered interim cost-

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[9] *ISP Remand Order* at ¶ 13.
[10] *ISP Remand Order* at ¶ 57.

recovery rules with each step capped at a lower rate. The current rule calls for intercarrier compensation for ISP-bound traffic to be capped at $0.0007 per minute of use.

Historically, Iowa has applied the bill and keep mechanism to ISP-bound traffic. The Board finds that this mechanism should be maintained. The Board notes that as bill and keep implies a rate of $0.00, which is lower than the FCC's mandatory cap of $0.0007, the bill and keep mechanism is consistent with the intent of the *ISP Remand Order*. Therefore, the Board will approve Qwest's proposed language regarding compensation for ISP-bound and VNXX-routed ISP-bound traffic.

B. INTERCARRIER COMPENSATION FOR VOIP TRAFFIC

Level 3 Position

Level 3 states that VoIP traffic is "information access" traffic and should be subject to reciprocal compensation, not access charges, just like ISP-bound traffic. Level 3 states that VoIP traffic is not traditional toll traffic where there are access charges for origination and termination.

Level 3 states that VoIP services are inherently geographically indeterminate, as the user may not even be in the same location on consecutive calls. Level 3 states that the FCC's reciprocal compensation rule, 47 C.F.R. § 51.701(b), states that "exchange access" and "information access" are not subject to reciprocal compensation. Level 3 states that VoIP traffic does not meet the definition of

"exchange access" traffic because it fails to meet the definition of a telephone toll service where the call is subject to a separate toll charge.

Qwest Position

Qwest states that Level 3's proposed language in this regard would essentially allow Level 3, or its third party VoIP provider, to place VoIP calls on the PSTN and never pay access charges that would apply to any other carrier despite the fact that many of the calls are neither local in nature nor qualify for the enhanced service provider (ESP) exemption. Qwest states that its proposed language describes how VoIP traffic will be treated as well as establishing the interconnection compensation rules.

Qwest states that Level 3 seeks reciprocal compensation on all VoIP traffic at the FCC mandated rate of $0.0007 per minute of use, no matter where the VoIP provider point of presence (POP) is located or where Qwest must transport the call to terminate it. Qwest states that the effect of this scenario would be to fundamentally change the compensation regime by making access charges inapplicable to VoIP calls. Qwest states that the ESP exemption exempts a VoIP provider from terminating access for delivering calls to PSTN customers in the LCA in which the VoIP provider's POP is purchasing local exchange service. Qwest asserts that Level 3's interpretation of the exemption is to effectively exempt ESPs from access charges everywhere.

Qwest states that a voice call between customers located in separate LCAs is a toll call and this applies to VoIP services. Qwest states that the ESP exemption does not extend beyond the LCA in which the ESP has a POP by purchasing local exchange service. Qwest states that the VoIP provider's POP is the relevant point to measure the end point of the traffic as the VoIP provider is treated as the end user under the ESP exemption.

Analysis

The proper classification of VoIP for purposes of intercarrier compensation is an evolving question. Nevertheless, the Board agrees with Qwest's position on compensation for VoIP traffic. Traditionally, a voice call between separate LCAs is a toll call and must be treated as such. The Board finds that this rule applies equally to all calls regardless of the technology used, including VoIP. Thus, when a call is originated in IP format on IP-compatible equipment and is handed off to Qwest within a LCA where the ESP is located, but the call is being sent for termination to another LCA, the provider is not entitled to free transport to the terminating LCA under the ESP exemption or on any other basis, nor is it allowed to connect to the terminating LCA as an end user under the ESP exemption if it does not have a physical presence in that LCA. The Board also agrees that the VoIP provider POP is the relevant point to measure the end point of the traffic since the VoIP provider is treated as the end user under the ESP exemption. Therefore, the Board will approve Qwest's proposed language regarding compensation for VoIP traffic.

ORDERING CLAUSES

IT IS THEREFORE ORDERED:

1. The interconnection agreement between Level 3 Communications, LLC, and Qwest Corporation shall incorporate the language adopted by the Board in this Arbitration Order.

2. Within 30 days of the issuance of this order, the parties shall submit an interconnection agreement consistent with the terms of this Arbitration Order.

UTILITIES BOARD

/s/ John R. Norris

/s/ Diane Munns

ATTEST:

/s/ Margaret Munson
Executive Secretary, Deputy

Dated at Des Moines, Iowa, this 16th day of December, 2005.