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ATTORNEYS AT LAW

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Via Electronic Filing

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Re: *Intercarrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 99-68, 96-98;  
*Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92

Dear Ms. Dortch:

On behalf of Level 3 Communications LLC, I am writing to respond to several recent *ex parte* filings regarding the use of “virtual NXX” arrangements. As the Commission is aware, a “virtual NXX arrangement” provides an end user customer with a local telephone number for an exchange in which the customer does not have a physical presence. Some parties, notably Verizon<sup>1</sup> and BellSouth,<sup>2</sup> ask the Commission to declare that virtual NXX traffic is interexchange traffic subject to access charges. But the ILECs’ arguments in support of their request merely perpetuate the same myths and misconceptions that underlie their views of intercarrier compensation reform generally. In particular, the ILECs’ arguments rely on an improperly circumscribed construction of Section 251(b)(5) of the Telecommunications Act of 1996 (the “1996 Act”).

This *ex parte* therefore begins by summarizing the reasons why Section 251(b)(5), properly understood, applies to all traffic that does not fall under Section 251(g). Against this backdrop, it is clear that the ILECs’ specific arguments regarding virtual NXX are incorrect. Virtual NXX traffic, like all other traffic that does not fall under Section 251(g), is subject to the reciprocal compensation provisions of Section 251(b)(5).

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<sup>1</sup> See Letter from Donna Epps, Verizon, to Marlene H. Dortch, Federal Communications Commission, CC Docket Nos. 99-68 and 01-92 (filed Dec. 6, 2004) (“*Verizon Dec. 6 ex parte*”); see also Letter from Donna Epps, Verizon, to Marlene H. Dortch, Federal Communications Commission, CC Docket Nos. 99-68 and 01-92 (filed Jan. 7, 2005) (“*Verizon Jan. 7 ex parte*”).

<sup>2</sup> See Letter from Glenn T. Reynolds, BellSouth, to Marlene H. Dortch, Federal Communications Commission, CC Docket No. 01-92 (filed Jan. 12, 2005) (“*BellSouth ex parte*”).

**I. Section 251(b)(5) Applies to All Traffic That Does Not Fall under Section 251(g).**

As a threshold matter, it is important to recognize that the vast majority of virtual NXX traffic is bound for an ISP. Thus, any analysis of the appropriate compensation due for the transport and termination of ISP-bound traffic must begin with an analysis of the compensation due for the transport and termination of ISP-bound traffic.

Verizon<sup>3</sup> and BellSouth<sup>4</sup> both contend that the Commission's *ISP Remand Order*<sup>5</sup> only applies to traffic delivered to ISPs within the same local calling area as the called party, which would preclude its application to virtual NXX traffic. However, as Level 3 previously explained to the Commission, this revisionist assertion is not only flatly wrong, it is contradicted by the express terms of the *ISP Remand Order* itself.<sup>6</sup> In the *ISP Remand Order*, the Commission reconsidered whether Section 251(b)(5), by its terms, applies to ISP-bound communications. The Commission repudiated its earlier ruling from the *Local Competition Order* that the provision is limited to the termination of "local" telecommunications, finding that it had "erred in focusing on the nature of the service (*i.e.*, local or long distance)...for purposes of interpreting the relevant scope of section 251(b)(5)," rather than looking to the language of the statute itself.<sup>7</sup> Specifically, the Commission found that, "[o]n its face," Section 251(b)(5) requires "local exchange carriers...to establish reciprocal compensation arrangements for the transport and termination of *all* 'telecommunications' they exchange with other telecommunications carriers, without exception."<sup>8</sup> The Commission emphasized that, "[u]nless subject to further limitation, section 251(b)(5) would require reciprocal compensation for transport and termination of *all* telecommunications traffic – *i.e.*, whenever a local exchange carrier exchanges telecommunications traffic with another carrier."<sup>9</sup>

Of course, the Commission went on to find that Section 251(b)(5) is "subject to further limitation" – specifically, that certain types of traffic enumerated in Section 251(g) are "carve[d] out" of Section 251(b)(5). That conclusion did not, however, affect the Commission's determination as to the scope of Section 251(b)(5) absent the "limitation" that the Commission believed to be imposed by Section 251(g). Indeed, the D.C. Circuit's decision in *WorldCom v. FCC* confirms that Section

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<sup>3</sup> See *Verizon Jan. 7 ex parte* at 1, 7; *Verizon Dec. 16 ex parte* at 8.

<sup>4</sup> *BellSouth ex parte* at 8.

<sup>5</sup> *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic*, Order on Remand and Report and Order, 16 FCC Rcd 9151 (2001) ("*ISP Remand Order*").

<sup>6</sup> See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-96 and 99-68, Sections 251(b)(5) and Section 252(d)(2) Govern ISP-Bound Traffic and Are Not Limited to "Local" Termination (*ex parte* submission of Level 3 Communications, LLC) (filed June 23, 2004).

<sup>7</sup> *ISP Remand Order*, 16 FCC Rcd at 9164 (¶ 26) (emphasis added).

<sup>8</sup> *Id.* at 9165-66 (¶ 31) (emphasis in original).

<sup>9</sup> *Id.* at 9166 (¶ 32)

251(b)(5) means what it says.<sup>10</sup> In *WorldCom*, the court found that Section 251(g) permits only “continued enforcement” of pre-1996 Act requirements, rather than conferring independent authority on the Commission to adopt new intercarrier compensation rules inconsistent with Section 251(b)(5). As a result, the D.C. Circuit did not cast any doubt on the Commission’s express finding that Section 251(b)(5) applies, “on its face,” to *all* telecommunications traffic, whether local or otherwise.<sup>11</sup>

In short, the *ISP Remand Order* reconciled Sections 251(b)(5) and 251(g): traffic that does *not* fall within Section 251(g) is governed by Section 251(b)(5).<sup>12</sup> And *WorldCom* clarified that ISP-bound traffic does not fall within Section 251(g) because there are no pre-1996 Act rules that Section 251(g) could possibly preserve. The same analysis is equally applicable to virtual NXX traffic bound for an ISP, for which there was also no pre-1996 Act rule governing the exchange of traffic between LECs. Accordingly, the ILECs’ claim that ISP-bound traffic which does not originate and terminate within the same local calling area falls outside the scope of Section 251(b)(5) is inconsistent with both the *ISP Remand Order* and judicial interpretations of the 1996 Act.<sup>13</sup>

Further, the terms “originate” and “terminate” in Sections 251(b)(5) and 252(d)(2) do not exclude traffic delivered to non-local end-points. Verizon and BellSouth would have the Commission add a new limitation to Sections 251 and 252: “*within the same local calling area.*” By their plain terms, however, Sections 251 and 252 contain no such limitation on the geographic scope of calls. They refer simply to the “transport and termination of telecommunications” and the “transport and termination...of calls.”<sup>14</sup> As AT&T explained to the Commission, Congress chose the broad term “telecommunications” and not the much narrower term “telephone exchange service” to describe the

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<sup>10</sup> 288 F.3d 429 (D.C. Cir. 2002).

<sup>11</sup> Verizon incorrectly asserts that the D.C. Circuit maintained that the *ISP Remand Order* was limited to calls to ISPs within the caller’s local calling area. *See Verizon Dec. 16 ex parte* at 8; *Verizon Jan. 7 ex parte* at 2, 8. The language cited by Verizon was simply dicta in the court’s decision, and has no legal effect.

<sup>12</sup> *See ISP Remand Order*, 16 FCC Rcd at 9169-70 (¶ 39).

<sup>13</sup> The changes adopted by the Commission in the *ISP Remand Order* further demonstrate that the *Order* rejected the Commission’s earlier view that Section 251(b)(5) applies only to “local” termination of telecommunications. In the *ISP Remand Order*, the Commission amended its reciprocal compensation rules (47 C.F.R. Part 51, Subpart H) in two key respects. First, it eliminated the word “local” in each place that it appeared. Second, the Commission expanded the scope of “telecommunications traffic” under the reciprocal compensation rules to cover *all* “telecommunications traffic exchanged between a LEC and a telecommunications carrier other than a CMRS provider” except for traffic “that is interstate exchange access, information access, or exchange services for such access” – the specific categories of traffic enumerated in Section 251(g).

<sup>14</sup> 47 U.S.C. §§ 251(b)(5), 252(d)(2)(A)(i).

scope of the LECs' termination obligations under Section 251(b)(5).<sup>15</sup> And nothing in the *ISP Remand Order* or the Commission's rules limit reciprocal compensation payments to traffic exchanged within the same calling area. Indeed, while Verizon relies on background statements in the *ISP Remand Order* that discuss ISPs "typically" establishing points of presence in the same local calling area, the Commission's decision was in no way dependent upon the geographic location of the ISP.<sup>16</sup> To the contrary, the Commission concluded that ISP-bound traffic was interstate based on its end-to-end analysis of the entire media stream – all the way to the server on which the actual content was located – and then asserted its Section 201 authority to establish rates for ISP-bound traffic without limitation.<sup>17</sup>

Finally, the D.C. Circuit's decision in *Bell Atlantic v. FCC* rejected the end-to-end analysis of ISP-bound traffic<sup>18</sup> upon which BellSouth relies to argue that virtual NXX calls should be subject to access charges and not reciprocal compensation.<sup>19</sup> As the D.C. Circuit explained in *Bell Atlantic*, the end-to-end analysis is used to determine the *jurisdiction* of a call, not the compensation that is due. Whether a call is interstate or intrastate has no bearing on whether a call is "exchange access," "information access," or "exchange services for such access." Thus, when the FCC relied on the "end-to-end" analysis to determine that ISP-bound traffic is not "local," the D.C. Circuit reversed and remanded the decision. And on remand, the FCC did not explain how the end-to-end analysis was relevant to determining the appropriate compensation model; instead, as discussed above, it relied on Section 251(g) to carve out certain traffic from the reciprocal compensation provisions of Section 251(b)(5). As a result, Verizon and BellSouth cannot rely on the end-to-end analysis to determine which form of intercarrier compensation (access or non-access) should apply to virtual NXX traffic bound for an ISP.

## **II. The Commission Should Reject the ILECs' Scattershot Array of Additional Arguments for Excluding Virtual NXX Traffic from the Scope of Section 251(b)(5).**

BellSouth and Verizon advance a whole collection of novel arguments for excluding virtual NXX traffic from the scope of Section 251(b)(5). These arguments, however, are incorrect.

Contrary to the ILECs' assertions, virtual NXX service is not exchange access.<sup>20</sup> The 1996 Act defines exchange access as "the offering of access to telephone exchange services or facilities for

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<sup>15</sup> See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98, 99-68, Section 251(b)(5) Applies to ISP-Bound Traffic, at 2 (*ex parte* submission of AT&T Corp.) (filed May 28, 2004).

<sup>16</sup> See *Verizon Dec. 16 ex parte* at 8.

<sup>17</sup> See *ISP Remand Order*, 16 FCC Rcd at 9186-9193 (¶¶ 77-88).

<sup>18</sup> 206 F.3d 1 (D.C. Cir. 2000).

<sup>19</sup> See *BellSouth ex parte* at 8.

<sup>20</sup> See *Verizon Jan. 7 ex parte* at 4-6; *BellSouth ex parte* at 10-11.

purposes of origination and termination of telephone toll services.”<sup>21</sup> “Telephone toll service” is defined as “telephone service between stations in different areas for which there is a separate charge not included in contracts with subscribers for exchange service.”<sup>22</sup> Verizon and BellSouth, however, point to no “separate charge” levied by CLECs that offer virtual NXX service. The statutory definition plainly contemplates a traditional interexchange call, in which an interexchange carrier charges the end user for interexchange transport separately from that end user’s local service. CLECs offering virtual NXX services, however, offer these services as part of their tariffed local service offerings, such as Direct Inward Dialing service. Further, when an end user calls a virtual NXX number, that end user is not billed for making a toll call, and neither is the called party. As a result, there is no “separate charge not included in contracts with subscribers for exchange access” and calls to virtual NXX numbers cannot satisfy the definition of exchange access.

Virtual NXX arrangements for ISP-bound traffic also do not result in toll bypass, as ILECs allege.<sup>23</sup> Very few – if any – customers of a dial-up ISP would intentionally place a toll call to reach that ISP. Thus, in the absence of a virtual NXX arrangement, an ISP will undertake one of two courses of action.

First, the ISP could buy private lines and interconnect those private lines to PRIs to create a point of presence located within each ILEC-defined local calling area, even if the servers remained centralized. But forcing an ISP to purchase transport links simply to mimic the ILEC’s historical network architecture needlessly introduces inefficiency that raises the ISP’s costs (and resulting rates) to provide dial-up Internet access to its end user customers. This result would be particularly silly if the CLEC provided PRIs. Under such an arrangement, the ILEC would carry the traffic to its Point of Interconnection (“POI”) with the CLEC, the CLEC would carry the traffic back to the local calling area to reach the private line, and the traffic would then be routed to the ISP server. Virtual NXX arrangements, by contrast, eliminate the CLEC’s duplicate transport back to the local calling area, while at the same time imposing no greater obligation on the ILEC – *i.e.*, the ILEC must carry traffic to the same POI regardless of where the traffic is routed after it reaches the POI.

Second, in many rural areas, it would not be cost effective for the ISP to purchase transport links in each ILEC exchange, so, in the absence of VNXX, the ISP will not maintain a local presence. Indeed, low-price Internet services provide little margin to absorb the increased cost of placing servers in rural areas. As a result, ILEC attempts to apply access charges to virtual NXX arrangements will limit the availability of affordable Internet access for end user customers and reduce Internet usage in rural communities.<sup>24</sup>

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<sup>21</sup> 47 U.S.C. § 153(16).

<sup>22</sup> 47 U.S.C. § 153(48).

<sup>23</sup> See *BellSouth ex parte* at 8-10, *Verizon Jan. 7 ex parte* at 6, *Verizon Dec. 16 ex parte* at 2-3.

<sup>24</sup> See Letter from John T. Nakahata to Marlene H. Dortch, CC Docket Nos. 99-68 and 01-92 (filed Nov. 23, 2004).

Significantly, virtual NXX arrangements do not generate additional costs for ILECs beyond those associated with interconnection for any other ISP-bound traffic.<sup>25</sup> All traffic generated by ILEC end users and CLEC end users is exchanged between the ILEC network and the CLEC network at a POI within a LATA. Each LEC has an obligation to bring its traffic to the POI, regardless of where it originated within the LATA. From that point, the CLEC is responsible for all the transport associated with delivering the call to the called party. Thus, the ILEC's transport cost is solely determined by the location of the POI at which the ILEC hands off the traffic to the CLEC, and not at all by whether the ISP server is located within the ILEC's local calling area or in a different local calling area or state. Importantly, CLECs such as Level 3 are *not* seeking any *additional* compensation from the ILEC for transport and termination when the ISP's server is not located in the calling party's local calling area. Thus, to the extent that ILECs have complaints about transport costs, that is an issue related to the single POI per LATA rule, not the intercarrier compensation for ISP-bound virtual NXX traffic.

Nor do virtual NXX arrangements increase transport costs for rural ILECs.<sup>26</sup> As Level 3 previously explained to the Commission, in areas subject to the rural exemption in Section 251(f)(1), CLECs serving ISPs interconnect with the rural ILEC within the rural ILEC's local calling areas, usually at the rural ILEC's end office.<sup>27</sup> In this situation, the ILEC does not incur any additional interoffice transport costs if the ISP's server is located outside the rural ILEC's local calling area. In areas where the Section 251(f)(1) exemption has been lifted, it has generally been Level 3's experience that it still ends up transporting traffic from the rural ILEC service territory.<sup>28</sup>

### **III. Virtual NXX Arrangements Promote Affordable Internet Access.**

As Level 3 previously explained to the Commission, virtual NXX arrangements create economies of scale and scope for both CLECs and ISPs.<sup>29</sup> This, in turn, reduces the cost of, and promotes competition for, dial-up Internet access in all areas of the country, especially – but not only – in rural areas. First, as discussed above, virtual NXX arrangements allow ISPs to serve an entire LATA from a single server (or even multiple LATAs or multiple states), reducing the costs of serving rural areas by allowing those areas to share economies of scale and scope. Second, virtual NXX arrangements enable CLECs to consolidate switching into regional switching centers that allow CLECs to take advantage of the decreased cost of processing calls. This is vastly different from ILEC networks,

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<sup>25</sup> See *Verizon Dec. 16 ex parte* at 2, Attachment A at 1-2.

<sup>26</sup> See *id.* at 4-5.

<sup>27</sup> See Letter from John T. Nakahata to Marlene H. Dortch, CC Docket Nos. 99-68 and 01-92 (filed Nov. 23, 2004).

<sup>28</sup> Likewise, virtual NXX traffic does not “burden” ILEC shared transport facilities. A common feature of interconnection agreements is the requirement that, above a specified traffic threshold (often two DS1s), the CLEC will groom traffic for direct transport to the ILEC end office. These provisions limit any “burden” on ILEC shared transport by excluding higher call volumes.

<sup>29</sup> See Letter from John T. Nakahata to Marlene H. Dortch, CC Docket Nos. 99-68 and 01-92 (filed Nov. 23, 2004).

which have multiple switches in small rate centers because they were largely constructed in a monopoly environment that guaranteed a profit on investment. Efficient distribution enables more consumers to benefit from low-priced dial-up Internet access, expanding the availability and usefulness for those Americans who are not ready to make the jump to broadband or for whom broadband is not yet affordable.

ILEC requests to apply access charges to ISP-bound virtual NXX traffic will force ISPs to divide their operations according to the antiquated system of geographic exchange boundaries. Indeed, if ILECs had their way, the only way to operate a dial-up Internet access service would be to forego regional servers, and locate a server in every ILEC calling area. This type of backward-looking industrial policy would particularly harm consumers in the rural portions of a LATA by depriving those consumers of low-priced dial-up Internet access offerings now available in the urban parts of a LATA.

Accordingly, Level 3 urges the Commission to ignore ILEC pleas to treat ISP-bound virtual NXX traffic differently than all other ISP-bound traffic. Instead, the Commission should declare that ISP-bound virtual NXX traffic, like all other ISP-bound traffic, is subject to the reciprocal compensation provisions of Section 251(b)(5).

Sincerely,

/s/

John T. Nakahata

*Counsel for Level 3 Communications, LLC*

Enclosure

## Myths and Facts About Virtual NXX Traffic

**Myth:** Section 251(b)(5) of the 1996 Act applies only to “local” traffic that originates and terminates within the same local calling area.

**Fact:** Section 251(b)(5) applies to all traffic that does not fall under Section 251(g).

Before 2001, the FCC used the term “local traffic” to identify calls that were subject to reciprocal compensation under Section 251(b)(5). However, the FCC removed the word “local” from its reciprocal compensation rules in the *ISP Remand Order*. The FCC redrafted the rules specifically to make clear that Section 251(b)(5) applies to *all* telecommunications traffic that is not subject to Section 251(g).

Further, the D.C. Circuit’s decision in *WorldCom v. FCC*, 288 F.3d 429 (D.C. Cir. 2002), confirms that Section 251(b)(5) means what it says. In *WorldCom*, the court found that Section 251(g) permits only “continued enforcement” of pre-1996 Act requirements, rather than conferring independent authority on the Commission to adopt new intercarrier compensation rules inconsistent with Section 251(b)(5). *WorldCom* therefore clarified that virtual NXX traffic does not fall within Section 251(g), because there were no relevant pre-1996 Act rules applicable to such traffic that Section 251(g) could possibly preserve. Consequently, virtual NXX arrangements are subject to Section 251(b)(5) compensation arrangements, including the *ISP Remand Order*, pending the FCC’s remand proceedings.

**Myth:** The Commission determines the appropriate compensation due for any given call based on the end points of the communication.

**Fact:** The end-to-end analysis of traffic is limited to determining jurisdiction, not compensation.

The Commission has traditionally used the end-to-end analysis of a communication to determine *jurisdiction* over a call, *i.e.*, whether it is interstate or intrastate. However, whether a call is interstate or intrastate has no bearing on the whether the call is “exchange access,” “information access,” or “exchange access for such services” – the categories of traffic subject to access charges under Section 251(g). Indeed, when the FCC relied on the traditional end-to-end jurisdictional analysis to conclude that ISP-bound traffic is not “local,” the D.C. Circuit reversed and remanded that decision on the ground that the FCC had failed to explain why the end-to-end jurisdictional analysis was relevant to determining which intercarrier compensation mechanism (access or non-access) would apply. *See Bell Atlantic v. FCC*, 206 F.3d 1 (D.C. Cir. 2000). The Commission cannot, therefore, rely on the end-to-end analysis to determine what form of intercarrier compensation should apply to virtual NXX traffic bound for an ISP.

**Myth:** A virtual NXX arrangement is identical to exchange access, so access charges are due.

**Fact:** Virtual NXX arrangements do not meet the statutory definition of exchange access.

The 1996 Act defines “exchange access” as “the offering of access to telephone exchange services or facilities for purposes of origination or termination of telephone toll services.” 47 U.S.C. §153(16). “Telephone toll service” is “telephone service between stations in different exchange areas for which there is a separate charge not included in contracts with subscribers for exchange service.” 47 U.S.C. § 153(48). The statutory definition plainly contemplates a traditional interexchange call, in which an interexchange carrier charges the end user for interexchange transport separately from that end user’s local service. CLECs offering virtual NXX services, however, offer these services as part of their tariffed local service offerings, such as Direct Inward Dialing service. Further, when an end user calls a virtual NXX number, neither the calling party nor the called end user is billed for making a toll call. Therefore, there is no “separate charge not included in contracts with subscribers for exchange access” so calls to virtual NXX numbers cannot satisfy the definition of exchange access.

**Myth:** Virtual NXX arrangements result in toll bypass.

**Fact:** ISP-bound traffic would not be rated as toll traffic in the absence of virtual NXX arrangements.

Virtual NXX arrangements allow consumers to use locally dialed numbers to reach dial-up Internet access providers. In the absence of a virtual NXX arrangement, an ISP will be forced to place a point of presence in every ILEC local calling area. This is because the vast majority of customers will not incur a toll charge to connect to an ISP. However, because low-price Internet access services provide little margin to absorb the increased cost of placing a point of presence or – under some ILEC theories – servers in rural local calling areas, ISPs are unlikely to extend their offerings to rural communities. The net effect is that rural communities will face higher prices and reduced competition for dial-up Internet access if access charges are imposed on virtual NXX arrangements.

**Myth:** Virtual NXX arrangements impose increased transport costs on ILECs.

**Fact:** Virtual NXX arrangements do not generate additional cost for ILECs beyond that associated with interconnection for local calls.

The location of an ISP’s server – whether it is located in the ILEC’s local calling area, a different LATA, or even a different state – has no bearing on the ILEC’s transport costs. The ILEC’s transport cost is entirely determined by the location of the Point of Interconnection (“POI”) at which the ILEC hands local traffic off

to the CLEC, and not at all by whether the ISP's server is physically located within the local calling area or remote from it. In short, transport arrangements on the originating LEC's side of the call are identical regardless of the terminating LEC's customer. It simply makes no difference whatsoever where the terminating LEC's customer is located behind the LEC's switch.

**Myth:** **Virtual NXX arrangements are the equivalent of 800 and toll-free services.**

**Fact:** **Virtual NXX arrangements are dialed, routed, and billed like other *local* calls.**

Level 3's virtual NXX arrangements differ greatly from 800 and "toll-free" services, which are dialed as other toll calls are dialed. Toll-free service may originate in thousands of exchanges rather than just one exchange. Toll-free service is routed to an access tandem for additional routing and billing instructions. Toll-free service requires a database dip and number conversion. And extensive call detail is available for toll-free service. All of these elements of a toll-free call contribute to the cost of the call. By contrast, virtual NXX arrangements lack each and all of these characteristics. Instead, virtual NXX and other FX-type services are dialed, routed, and billed like other *local* calls.

**Myth:** **CLEC virtual NXX arrangements have no economic or technical value, and are simply uneconomic arbitrage.**

**Fact:** **CLEC virtual NXX arrangements reflect the merging technological environment in which services are geographically independent of end user location, and IP technologies enable greater economies of scale and scope.**

As Sanford Bernstein recently recognized in a report on VoIP, softswitch technology is far less capital intensive than traditional switching, and is relatively location insensitive. Like many other advanced networks, Level 3 uses its softswitch technology to serve regions of the country, not just individual ILEC-defined central office boundaries. Concentrating the switching and cross-connect functions into regional centers permits Level 3 and its customers to take advantage of the Moore's Law-driven increases in processing capacity and decreases in the price of computing power. In addition, as Bernstein observed generally with respect to VoIP, "multiple markets can be served by a single softswitch installation, installed and serviced by one team of trained technicians," creating additional operational cost savings as well.

CLEC softswitch platforms allow providers of IP-enabled services and applications to offer those services from their own regional or national locations, using the power of the Internet and IP technology. In Level 3's experience, ISPs provide their services from the locations that they select, and are frequently selecting locations that allow the ISPs also to take advantage of the dramatic

improvements in and economies of scale and scope with respect to processing power and storage.

CLECs invest in and provide all of the substantial facilities necessary to carry traffic from (and in the case of VoIP, to) its point (or points) of interconnection with the ILEC to the points designated by their ISP customers. In some cases, that may be a short distance, while in other cases, that may be a longer distance and may be provided to the ISP in conjunction with information services, such as protocol conversions and Internet backbone services. Verizon's repeated characterizations of ISPs as always, or substantially always, collocated with CLECs are misleading in the extreme.