Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing an Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109
	)	
Universal Service Reform – Mobility Fund	)	WT Docket No. 10-208

COMMENTS OF CENTURYLINK

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EXECUTIVE SUMMARY

In the *USF/ICC Transformation Order*, the Commission went a considerable distance in attempting to address fundamental flaws with its legacy universal service and intercarrier compensation (ICC) frameworks and to re-shape those frameworks to support the most critical task at hand -- maximizing the continued build-out of next generation broadband networks. However, in some respects, when it comes to ICC reform, the *USF/ICC Transformation Order* went too far and is counterproductive to that task. CenturyLink has been a leading supporter of the Commission's efforts to reform universal service and ICC and was a member of the ABC Plan coalition that proposed a groundbreaking framework to accomplish such reform. CenturyLink supported the ABC Plan because it called for a transition over a reasonable time period to a low but still positive uniform terminating default rate and addressed the essential need for companies to have a reasonable opportunity to recover lost ICC revenues from their customers or, as necessary, from a new explicit fund. The *USF/ICC Transformation Order* incorporated many aspects of this proposal. But, it imposed an ultimate transition to a bill and keep or zero rate end state. And, it established dramatically reduced ICC revenue recovery mechanisms. Among other things, it established an Access Recovery Charge (ARC) that is overly proscriptive, complex, and insufficient -- in addition to failing to provide a level of price flexibility enjoyed by an ILEC's competitors. These changes already threaten to destroy the critical policy balance forged by the ABC Plan and have rendered the *USF/ICC Transformation Order* subject to legal challenge. CenturyLink urges the Commission, in resolving the ICC-related issues raised in the *FNPRM*, to remain cognizant of potential limitations to its legal authority and to generally proceed with caution. Specifically:

Bill and Keep Implementation. Caution is warranted when addressing the various aspects of "bill and keep implementation" teed-up in the *FNPRM.*

- Regarding originating access, the Commission should recognize its limited legal authority, should delay any regulatory reform until the *USF/ICC Transformation Order* transition has been accomplished, and should recognize the distinct attributes of originating access that dictate against bill and keep treatment.

- The Commission also lacks authority to mandate bill and keep for the common and dedicated transport elements of terminating carriers not yet subjected to the *USF/ICC Transformation Order's* transition to a bill and keep end state. Policy concerns also suggest the Commission should not take any further regulatory action towards these services beyond what is already accomplished in the *USF/ICC Transformation Order* and should ultimately move toward deregulation of these services.

- The Commission also lacks authority to mandate bill and keep for local and intraLATA transit services and for the access tandem switching and transport services of intermediate carriers (jointly provided switched access services or JPSA). Even assuming it has such authority, the Commission should not take any further regulatory action towards these services at this time beyond what is already accomplished in the *USF/ICC Transformation Order (i.e.*, leaving local and intraLATA transit services untouched and subjecting access "transit" or JPSA to the cap).

- This same approach is mandated for other rate elements not yet touched by the *USF/ICC Transformation Order*'s transition.

- Similarly, the treatment for signaling charges should track with the associated network function.

- It is important that the Commission maintain the economic and structural balance of PSTN interconnection, which requires adjustments to rules for network edges and balance of traffic to account for reduced intercarrier compensation in the face of continuing carrier of last resort obligations and end-user rate regulation. Altering this balance risks damaging not just universal service and consumer welfare but, also the efficient evolution to IP-based networks, which have a different economic and structural equilibrium. Accordingly, the Commission should establish a default network edge for carriers of last resort, particularly where accompanied by end-user rate regulation, that establishes the edge for traffic terminating to the ILEC's end users at the ILEC's first point of switching in the call path to the ILEC called party. Other providers should also be required to accept a hand-off of traffic going in the other direction at that same point on the ILEC network. This rule would also be subject to specific guidelines regarding when carriers would be required to use dedicated end office transport rather than common tandem transport connections to the called party's end office. In addition, default edge locations must appropriately balance the costs of transport provided by each party, particularly in a bill and keep ICC environment. Requiring carriers to establish financial edge locations on the ILEC network for the mutual exchange of traffic properly balances the transport burden.
- CenturyLink also agrees with much of what is proposed regarding tariffs and agreements in the *FNPRM*, but supports the continued availability of a default arrangement of some kind -- for example, where a low volume of traffic exchanged makes a negotiated agreement infeasible.

Further Reform of End User Charges and CAF ICC Support. The Commission should not impose further constraints on ARC charges, should not modify the phase-out period for ICC-replacement CAF funding and should retain existing SLC mechanisms. It would be arbitrary and capricious to impose a new ICC regime based on a foundational finding that carriers can and should look to their own end users for cost recovery, while silmultaneously eliminating the only mechanisms by which carriers might do that. Additionally, the Commission should not require ILECs to include SLCs and ARCs in advertised prices for relevant services.

IP Interconnection. The Commission should allow IP-to-IP interconnection arrangements to develop organically, through good faith negotiations, as local TDM networks are migrated to IP. In the long run, when all voice customers are served on IP networks, voice services may be better handled through the flexible IP transiting and peering arrangements that have facilitated the dramatic growth and transformation of the Internet. During this transition to ubiquitous IP networks, premature regulation will skew the natural evolution of IP-to-IP interconnection arrangements and unnecessarily divert scarce capital from more productive uses, such as extending and upgrading broadband capabilities. In the meantime, VoIP providers can continue to exchange traffic in IP format through an established peering arrangement (either directly or through a third party), as some VoIP providers do today, or they can convert their traffic to TDM and use existing interconnection arrangements. ILEC specific rules for IP-to-IP interconnection are particularly unwarranted, both as a matter of law and sound public policy. Section 251(c)(2) does not grant CLECs access to a "yet unbuilt, superior" network, and the Commission also could not require IP-to-IP interconnection under that provision without first classifying VoIP as a telecommunications service and a local exchange and/or exchange access service. Such one-sided rules also are not justified given that ILECs clearly are not incumbents in the provision of IP voice services, and lack the kind of market share of voice traffic that is required to justify such inequitable treatement. It is also far from clear that the economics of IP networks are consistent with the rules developed for opening PSTN markets 15 years ago. The Commission should particularly take care to avoid new requirements that would force carriers to build IP facilities that they do not already have in place. Such premature requirements would entail enormous investment and technical resources, inevitably diverting scarce resources that could otherwise be used to deploy and upgrade broadband services -- including those needed to provide VoIP itself. It would also create an ineffecient network architecture based on yesterday's needs rather than the potential efficiencies of tomorrow's networks.

Call Signaling Rules For VoIP Services. The Commission should not create special call signaling rules for one-way VoIP services.

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COMMENTS OF CENTURYLINK

I. INTRODUCTION

CenturyLink submits these comments in response to the *Further Notice of Proposed Rulemaking* (*FNPRM*) in the above-captioned proceeding.[1] These comments address the issues

[1] *See In the Matter of Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform - Mobility Fund,* WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161 (rel. Nov. 18, 2011) (*FNPRM* or *USF/ICC Transformation Order*), *Order clarifying rules* (*Clarification Order*), DA 12-147, rel. Feb. 3, 2012, Erratum, rel. Feb. 6, 2012; *pets for recon. pending*; *pets. for rev. of the Report and Order pending, sub nom. Direct Communications Cedar Valley, et al. v. FCC*, (10th Cir. Nos. 11-9581, *et al.*).

raised by the Commission in Sections XVII. L-R of the *FNPRM* regarding further reform of intercarrier compensation (ICC).

II. DISCUSSION

A. When Addressing "Bill And Keep Implementation," The Commission Should Recognize Its Limited Legal Authority, Should Generally Proceed With Caution And Should Not Impose Bill And Keep For The Remaining Services At Issue

1. The Commission Should Recognize Its Limited Legal Authority Regarding Originating Access And, In All Events, Should Proceed With Caution And Account For The Unique Attributes Of Originating Access In Any Reform

a. The Commission lacks authority to regulate intrastate originating access and lacks authority to mandate bill and keep for any originating access

CenturyLink shares the view of other parties who have noted that the Commission lacks authority to regulate ICC for intrastate originating access and, even assuming such authority, lacks authority to impose bill and keep on either interstate or intrastate originating access.[2] The Commission, in the *USF/ICC Transformation Order*, appears to find its purported authority to regulate originating access in section 251(g).[3] The Commission misreads section 251(g) in this context. That section provides that, after the effective date of the 1996 Act, LECs will continue to provide exchange access and other services that they provided prior to the effective date "in

[2] *See, e.g., USF/ICC Transformation Order* ¶ 773 and n. 1398 (and comments cited therein); ¶ 777 and n. 1416 (and comments cited therein). *See also* Reply Comments of CenturyLink, WC Docket Nos. 10-90, *et al.*, filed May 23, 2011 at 36 and n. 87 ("Numerous parties discuss these potential limits in their initial comments. *See, e.g.*, CompTel at 33-34 (argument regarding legal limitations or, Commission's ability to impose bill and keep reform plan, particularly in circumstances where traffic may be out of balance); Cbeyond, *et al.*, at 12-15 (same, regarding bill and keep and 50.0007 plans); Core at 8-11 (same); EarthLink at 14 (argument regarding absence of evidence in record that termination of traffic over IP networks entails no usage-sensitive costs)."); Submission for the Record of CenturyLink in WC Docket Nos. 10-90, *et al.*, filed Oct. 21, 2011 (CenturyLink Oct. 21, 2011 Submission).

[3] *USF/ICC Transformation Order* ¶¶ 777-778.

accordance with the same equal access and nondiscriminatory interconnection restrictions and obligations (including receipt of compensation)" previously in effect "until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission."[4] Section 251(g), thus, does not contain an independent grant of authority to the Commission to regulate any services. Rather, as the Commission itself acknowledges elsewhere in the *USF/ICC Transformation Order,* it is a transitional device.[5] It merely provides that, to the extent the 1996 Act grants new authority to the Commission to regulate aspects of exchange access or other services listed in section 251(g), prior regulations remain in place unless and until the Commission acts in such areas.[6] Thus, as the Commission details in other sections of the *USF/ICC Transformation Order*, there is a plausible argument that section 251(b)(5)(imposing a duty on all LECs "...to establish reciprocal compensation arrangements for the transport and termination of telecommunications") grants the Commission authority to regulate intrastate terminating switched access services <u>and</u> that section 251(g) preserved state regulation of such services until the Commission acted under section 251(g) to do so.[7] However, this argument only works because the operative language in section 251(b)(5) -- "transport and termination" -- encompasses terminating switched access services. In other words, the authority to regulate terminating access services is found in section 251(b)(5). This same legal rationale does not extend to originating access. Simply put, "transport and termination" does not encompass originating switched access services.[8] Thus, section 251(b)(5) does not grant the Commission

[4] 47 U.S.C. § 251(g).

[5] *USF/ICC Transformation Order* ¶ 763.

[6] *Id.*

[7] *Id.* ¶¶ 763-766.

[8] Nor does the Commission even address this issue directly in the *USF/ICC Transformation Order*. It simply concludes, without addressing this issue, that it has authority to regulate

authority to regulate intrastate originating access services and the transitional device contained in section 251(g) -- which preserves prior regulations in areas where the 1996 Act does grant new authority unless and until the Commission acts to regulate -- is irrelevant.

Even assuming the Commission has authority to regulate intrastate originating access, it lacks authority to mandate bill and keep for either interstate or intrastate originating access. In the *USF/ICC Transformation Order*, the Commission essentially concludes: (a) that the section 252(d) pricing standards for section 251(b)(5) traffic are satisfied by a bill and keep reform plan;[9] (b) that the majority of traffic encompassed by section 251(b)(5) (*e.g.*, LEC-IXC traffic) is not subject to the section 251(d) pricing standards;[10] and (c) that it has independent authority for another large subset of the traffic at issue in its ICC reform plan (LEC-CMRS traffic) under section 332(c).[11] Regarding the first conclusion, CenturyLink disputes the finding that section 251(d) permits a mandatory bill and keep rate structure.[12] In particular, bill and keep is specifically referenced in section 252(d)(2)(B), which operates as a "savings clause" to ensure that the section 252 "additional cost" standard for the pricing of reciprocal compensation does not "preclude arrangements that afford the mutual recovery of costs through the offsetting of

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originating access pursuant to section 251(g). *Id.* ¶¶ 777-778. Indeed, the Commission appears to conclude that section 251(b)(5) does not encompass originating access because it finds that the failure to specify "origination" in addition to "transport and termination" in the language of section 251(b)(5) effectively mandates that charges for originating access are not permitted. *Id.* ¶ 817. It does not follow that, because the statutory language of section 251(b)(5) does not encompass originating access services, that no charges are permitted for such services. It simply means that section 251(b)(5) cannot serve as a basis for the Commission to regulate such services to the extent they are intrastate. To the extent such services are interstate, the Commission's regulation has of course not rested on that section but rather upon section 201. *Id.* ¶¶ 769-770.

[9] *Id.* ¶ 775.

[10] *Id.* ¶ 774.

[11] *Id.* ¶ 779.

[12] *See*, *e.g.*, n. 2, *supra*.

reciprocal obligations, including arrangements that waive mutual recovery (such as bill and keep arrangements)."[13] The fact that parties are free to agree voluntarily to bill and keep arrangements, however, does not begin to mean that the Commission can impose such arrangements on parties against their will. In fact, a "savings clause" such as section 252(d)(2)(B) would hardly be necessary if bill and keep were consistent with the additional cost pricing standard set forth as the general rule in section 252(d). With respect to the second and third conclusion, the Commission also fails to demonstrate that the section 201 "just and reasonable" pricing standard can be satisfied by a mandatory bill and keep rate structure. Indeed, on this last point, while there is discussion in the *USF/ICC Transformation Order* of the fact that this section 201 standard applies to traffic even where the section 252(d) pricing standards do not, there is no discussion whatsoever of how a bill and keep framework satisfies that standard. Therefore, the Commission cannot use a bill and keep standard because it has not been justified under the Section 201 standard, and CenturyLink believes that it cannot be justified.

b. Assuming *arguendo* it has authority, the Commission should proceed with caution in regulating originating access given the magnitude of ICC reform already accomplished

Even if the Commission has legal authority to regulate intrastate originating access services and, thus, could impose a reform plan for ICC charges for such traffic, it should proceed with caution. Policy reasons alone dictate that any regulatory reform of originating access charges be delayed until after a transition has been accomplished for the terminating and originating access service elements already encompassed by the bill and keep transition spelled out in the *USF/ICC Transformation Order*.

[13] 47 U.S.C. § 252(d)(2)(B).

As the Commission stressed throughout this proceeding, and re-emphasized in the *USF/ICC Transformation Order*, it is critical that any reform provide the industry with stability and certainty and that it not overburden end users or universal service funding requirements.[14] The ICC reform framework imposed by the *USF/ICC Transformation Order* has already set in motion a series of events and milestones which will require considerable administrative effort by carriers and regulatory agencies to implement given the massive change envisioned. The Commission should wait until that work is complete before imposing another round of reforms. The Commission should also avoid reform that negatively impacts the industry's ability to attract private investment capital for broadband network investment and operation. The huge reductions in ICC revenues already accomplished will also place a significant strain on end users and, secondarily, on universal service funds. It would be disruptive to further burden consumers by asking them to pay for additional retail rate increases needed to support reductions in originating access revenue while they are simultaneously experiencing the most significant impacts already caused by the *USF/ICC Transformation Order*.

Finally, there is not the same sense of urgency when it comes to reform of originating access ICC. As the Commission notes in the *USF/ICC Transformation Order*, carriers have not seen the same level of arbitrage concerns with originating scenarios as it has seen with terminating traffic flows.[15] One major reason for terminating access reform, and the goal of a bill and keep rate structure, is that it can be argued that the carrier completing a call has the ability to exploit carriers purchasing the terminating access service. Because of this, terminating access

[14] *USF/ICC Transformation Order* ¶ 9 ("...we need to provide more certainty and predictability regarding revenues to enable carriers to invest in modern, IP networks."); and ¶ 739 ("...we believe that limiting reform to terminating access charges at this time minimizes the burden intercarrier compensation reform will place on consumers and will help manage the size of the access replacement mechanism adopted herein.").

[15] *Id.* ¶ 777.

has generated traffic pumping and other substantial arbitrage issues. By contrast, there have been fewer problems with originating access, in significant part because the end-user customer making the calls chooses the access provider and, indeed, the LEC's affiliated long distance operation often competes for that customer relationship.

For all these reasons, the Commission should not impose a similar transition on originating access service until after the six-year transition spelled out in the *USF/ICC Transformation Order* is completed. Rather, it should adopt a wait-and-see approach and take further action only after the heavy lifting to complete the implementation of the *USF/ICC Transformation Order* has been accomplished.

c. In any reform it undertakes, the Commission must account for the unique attributes of originating access, must avoid bill and keep and must provide for adequate recovery of lost revenue

If it does act to reform originating access, the Commission must account for the unique attributes of originating access services. And as discussed more fully below, even putting aside legal limitations on the Commission's ability to act, these attributes dictate that, as a policy matter, bill and keep is clearly not an appropriate reform model for originating access services. Finally, regardless of what reform model is pursued and regardless of when it is pursued, the Commission must ensure that carriers have an adequate opportunity to recover any lost originating access revenues. The recovery mechanism must avoid the pitfalls of the current ARC -- *i.e.*, being overly prescriptive, complex, burdensome, and must not place ILECs at a competitive disadvantage.

Originating access services have unique attributes making them more analogous to local transit services and JPSA services than terminating access services. In the typical toll call flow, the end user dials the long distance number and the originating LEC carries the call to the IXC selected by the end user to provide them with long distance service. That originating LEC does not have a customer relationship with the end user for this service. It is merely providing an input to the IXC's long distance service.[16] Also, unlike terminating access, originating access is not reciprocal in nature. Originating access traffic is not exchanged for the purpose of delivery to the receiving carrier's customers. To the contrary, the end user is a shared customer served both by the receiving IXC and the originating LEC. Therefore, the IXC requires the service to reach its own end-user customer, with whom it has a billing relationship. In the terminating access and local reciprocal compensation situations, the terminating carrier and any intermediate carriers are providing something of value to the delivering IXC or LEC. But, in the originating access scenario, the receiving carrier (the IXC) is not providing anything of value to the delivering LEC in exchange for the origination.

In light of the above, it would be erroneous as a policy matter to impose bill and keep as the compensation structure between originating LECs and IXCs. It would be economically irrational and market distorting to require originating carriers to provide this input for free to other carriers upon request. Ultimately, it would also make it impossible for originating carriers to recover the cost of building and maintaining those networks. Indeed, if there were no charges for originating traffic for IXCs pursuant to equal access obligations, the risk of arbitrage would

[16] This is also clearly the case for 8YY traffic. In the 8YY context, the IXC's customer is either the called party who purchases the 8YY service (in the circumstance where the IXC also provides the 8YY service) or the 8YY service provider (in the circumstance where the 8YY service provider hires a third party IXC to complete calls). The Commission asks, in the *FNPRM*, whether it should "distinguish between originating access reform for 8YY traffic and originating access reform more generally." *FNPRM* ¶ 1303. It should not. For example, the Commission suggests that it might need to treat 8YY originating access differently because, with 8YY service, the calling party "chooses the access provider but does not pay for the toll call" and therefore "has no incentive to select a provider with lower originating access rates." *Id.* In the 8YY context, there is still a customer of the IXC that chooses the IXC and pays for the call and therefore is incented to select an IXC with lower rates. The concern that arises in the 8YY context is that certain carriers have imposed higher than allowed charges on 8YY traffic for the access elements that are unique to 8YY (*e.g.*, database dips). *See* Section II.A.8, *infra.*

increase exponentially and the appropriateness of the equal access regime itself would come into question.

Given the attributes noted above, it simply doesn't make sense from a policy standpoint to reduce or eliminate ICC charges in this context and replace them with end-user charges -- as the Commission has done in the *USF/ICC Transformation Order* with terminating access and local reciprocal compensation. But if the Commission were intent on doing so, carriers must have the opportunity to replace the lost revenue with new end-user charges or an explicit support mechanism. As with terminating access and local reciprocal compensation, the Commission has a legal obligation to do so. This obligation arises from several potential sources. Generally speaking, the Commission, in reforming any aspect of ICC, must satisfy its constitutional obligation to provide carriers with a reasonable opportunity to recover their costs.[17] Additionally, to the extent the Commission purports to rely upon section 251(b)(5) as a source of authority to regulate originating access, it must satisfy the requirement of section 252(d)(2) that it allow carriers adequate recovery of their costs.[18] Given the fact that the originating carrier does not have a customer relationship with the end user for the long distance service at issue here, this requirement is even more demanding in this context. And, of course, to the extent section 252(d)(2) does not apply, the Commission must still satisfy the section 201 "just and reasonable rate" standard and it cannot do so here for all these same reasons.[19]

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[17] *See*, *e.g.*, Comments of CenturyLink in WC Docket Nos. 10-90, *et al.*, filed Apr. 18, 2011 at 64, 65, n. 91, 68-71 (CenturyLink Apr. 18, 2011 Comments); CenturyLink Oct. 21, 2011 Submission at 2-5. *See also Duquesne Light Co. v. Barasch*, 488 U.S. 299 (1989).

[18] 47 U.S.C. §§ 251(b)(5), 252(d)(2). *See also*, CenturyLink Apr. 18, 2011 Comments at 64, 69-70; CenturyLink Oct. 21, 2011 Submission at 2-5.

[19] 47 U.S.C. § 201(b); CenturyLink Oct. 21, 2011 Submission at 2-5.

Nor should the solution be any different to the extent the originating LEC provides retail long distance through affiliates. As the ABC Group articulated in response to the Commission's August 3, 2011 Public Notice, even where "the originating incumbent LEC's affiliate is offering the long distance service," there are many circumstances in which a reduction in originating access charges would cause a net loss of revenues for the LEC and its long-distance affiliate.[20] For example, as a result of legislatively-mandated geographic averaging and bundled/all-you-can-eat pricing plans, the relationship between a LEC's originating access losses and the revenue gains of its long-distance affiliate often is not a one-for-one correlation.[21] Specifically, long distance is an extremely competitive offering. If the cost of reaching the end user were no longer an input in the long distance cost structure, the savings will be competed away. If the LEC cannot recover the cost of connecting the long distance carrier to the long distance carrier's customer through an end-user charge and the long distance carrier arm has to respond to competitive pressures, there is no recovery for the very real cost of providing the transport on behalf of the PIC'd carrier -- whether the affiliate of the LEC or not.

Regardless of what reform model is pursued, the Commission must ensure that carriers have an adequate opportunity to recover any lost originating access revenues. At whatever time originating access reform occurs, the recovery mechanism must avoid being overly prescriptive, complex, burdensome and must not place ILECs at a competitive disadvantage. The current ARC established to recover terminating access revenues fails in these respects. For these reasons, as with the ARC charges established in the *USF/ICC Transformation Order,* the Commission should consider giving carriers -- in addition to the ability to charge for the use of

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[20] Joint Comments of AT&T, CenturyLink, Fairpoint, Frontier, Verizon and Windstream in WC Docket Nos. 10-90, *et al.*, filed Aug. 24, 2011 at 26-27.

[21] *Id.*

their networks -- pricing flexibility and/or deregulation of retail prices in regard to this recovery mechanism; assuming that it has not already been established at the time of reform.

2. The Commission Should Recognize Its Limited Authority Regarding Transport Elements Not Subsumed In The Bill And Keep End State And Should Move Toward Deregulation Of Those Services

a. The Commission lacks authority to mandate bill and keep for transport

Just as the Commission lacks authority to impose bill and keep on either interstate or intrastate originating access or any traffic that falls within the scope of section 251(b)(5), it also lacks authority to mandate bill and keep for the transport elements addressed in Paragraphs 1306-1310 and the dedicated transport elements addressed in Paragraph 1314, which are essentially those common and dedicated transport elements *of terminating carriers*[22] not subjected to the transition established in the *USF/ICC Transformation Order*. These services are also subject to the constitutional requirement that carriers have a reasonable opportunity to recover their costs, and either the specific pricing standards set forth in section 252(d)(2) or the section 201 "just and reasonable" pricing standard.[23] As such, consistent with the discussion above, a mandatory bill and keep rate structure for these services would also be subject to legal challenge.[24]

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[22] In this section, CenturyLink addresses these services and function only to the extent they are provided by terminating carriers. Section II.A.3, *infra*, discusses the treatment of these services to the extent they are provided by intermediate carriers -- *i.e.*, by any carrier other than terminating carriers.

[23] *See* text, *supra*, pp. 4-5, 9-10.

[24] *Id.*

b. Assuming *arguendo* it has authority, the Commission should move towards deregulation of the terminating common and dedicated transport elements not addressed in the *USF/ICC Transformation Order*

Putting aside these limitations to the Commission's legal authority, it is clear that the answer, from a policy standpoint, to the *FNPRM*'s questions regarding these common and dedicated transport elements of terminating carriers, is that the Commission should move toward deregulation of such services. In all events, it should not take any further regulatory action towards these services at his time beyond what is already accomplished in the *USF/ICC Transformation Order*.

At issue here are the transport elements a terminating carrier may provide that are not subsumed in the bill and keep end state or the transition thereto set forth in the *USF/ICC Transformation Order*. The Commission describes in footnote 2358 of the *FNPRM* those elements that are subsumed in the bill and keep end state:

> With regard to tandem switching and tandem transport, at the end of the transition specified in the Order, rates will be bill-and-keep in the following cases: (1) for transport and termination within the tandem serving area where the terminating carrier owns the tandem serving switch; and (2) for termination at the end office where the terminating carrier does not own the tandem serving switch.[25]

By definition, this leaves those elements not falling within this description for resolution in the *FNPRM*. And, elsewhere, the Commission makes clear that it has also left the resolution of the going-forward treatment of dedicated transport elements (*i.e.*, entrance facilities, dedicated transport functions previously considered a part of tandem switching and tandem transport, and direct trunked transport) to the *FNPRM*.[26] In other words, referencing the diagram included in

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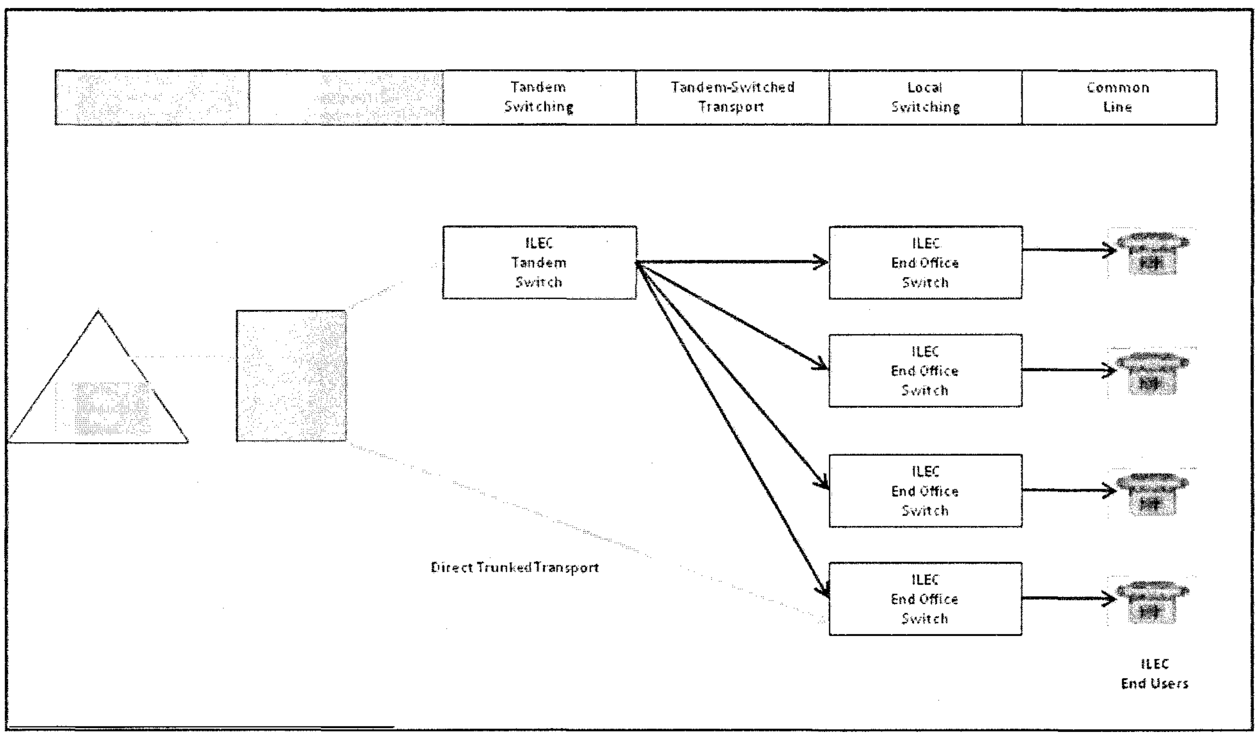
[25] *USF/ICC Transformation Order* n. 2358.

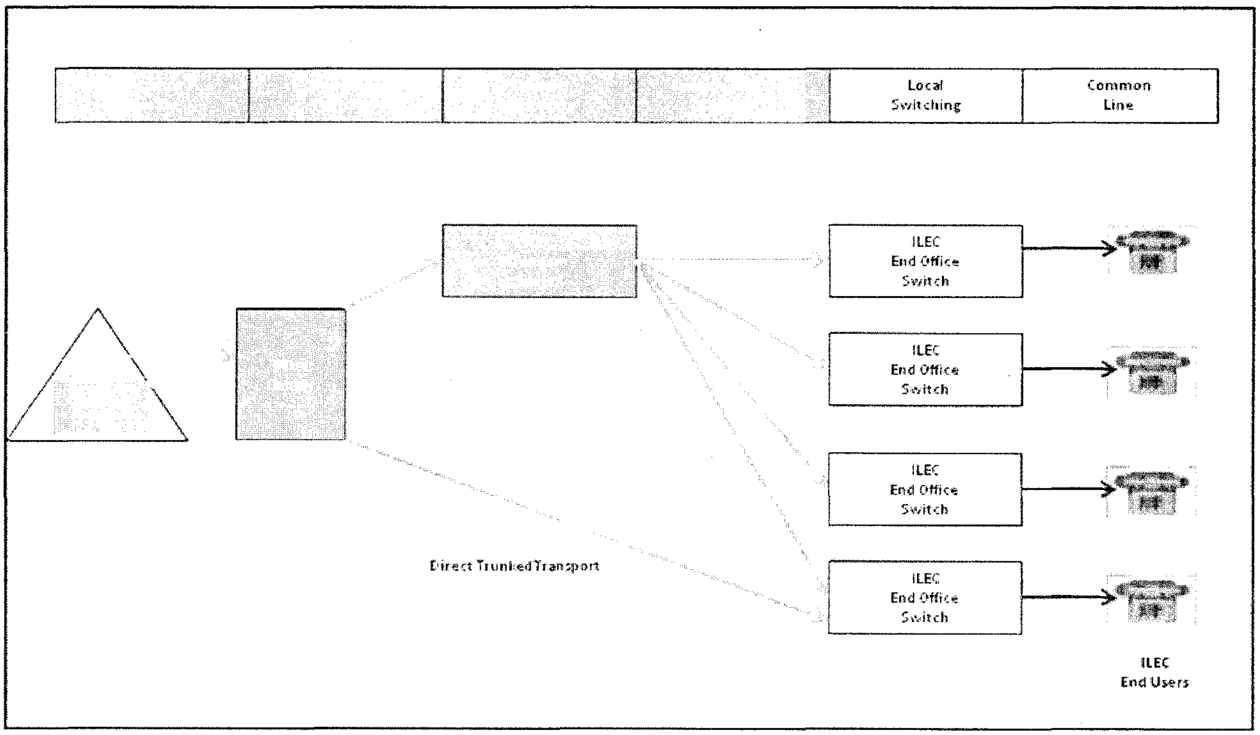
[26] *Id.* ¶ 739.

Paragraph 1306 of the *FNPRM*,[27] the grey-shaded boxes and arrows below identify the transport functions that are left outside the bill and keep end state where the terminating carrier owns the tandem in the serving area:



[27] While this diagram uses traditional access terminology, as opposed to terminology associated with traditional local reciprocal compensation architecture, it serves as a useful reference for the equivalent functionality in the context of a local call flow also. For example, "CLEC POI" can be exchanged for the reference to "IXC POP" for many arrangements -- though, as discussed below (*see* n. 47, *infra*), the actual location of the physical point of interconnection can vary in certain network arrangements.

And, the grey-shaded boxes and arrows below identify the transport and other functions that are left outside the bill and keep end state where the terminating carrier does not own the tandem in the serving area:



Notably, in this latter scenario, the only functionality likely, as a practical matter, to be provided by the terminating carrier falling outside the bill and keep end state is either direct trunked transport or a shared portion of the common transport referenced here as tandem-switched transport. And, that functionality is not provided by the terminating carrier (*i.e.,* the end-office owner) in all call flows.

The Commission should move to fully deregulate these services of terminating carriers and, in all events, should not take any further regulatory action towards these services at this time beyond what is already accomplished in the *USF/ICC Transformation Order*. The *USF/ICC*

Transformation Order and the Commission's new rules make clear that these functions are not subsumed in the bill and keep transition and end state.[28] And, as a result of the *USF/ICC Transformation Order*, charges for these elements are already capped.[29] Whether provided as part of access or non-access call flows, these are all elements as to which additional cost is incurred by terminating carriers and as to which there are competitive alternatives. If the Commission reduces or eliminates the ability to charge for such functionality, it will only stifle such competition as carriers will be disincented from further building out these facilities. These are all elements that are charged for separately today by terminating carriers in both access and reciprocal compensation call flows. Terminating carriers should continue to be able to charge separately for these functions under the new rules. The capping of charges for these services already addresses any concern that carriers will have incentive to shift costs to these elements from end-office functions.[30]

[28] *USF/ICC Transformation Order* ¶¶ 739 and 819 and n. 2358. *See also* Rule 51.705(c) for Non-Access Reciprocal Compensation and Rule 51.907(h) for Access Reciprocal Compensation.

[29] Paragraphs 819 and 739 of the *USF/ICC Transformation Order* also make clear that, other than being capped, the treatment of these functions going forward is not yet addressed. Paragraph 819 states: "*Transport.* Similarly, the transition path set forth above begins the transition for transport elements, including capping such rates, but does not provide the transition for all transport charges for price cap or rate-of-return carriers to bill-and-keep. For price cap carriers, in the final year of the transition, transport and terminating switched access shall go to bill-and-keep levels where the terminating carrier owns the tandem. However, transport charges in other instances, i.e., where the terminating carrier does not own the tandem, are not addressed at this time." *USF/ICC Transformation Order* ¶ 819. And, Paragraph 739 makes clear that the Commission left the resolution of the going-forward treatment of dedicated transport elements to the *FNPRM*. *Id.* ¶ 739. *See also* Rule 51.705(c) for Non-Access Reciprocal Compensation and Rules 51.903 and 51.907 generally and particularly Rule 51.907(a) for Access Reciprocal Compensation.

[30] *USF/ICC Transformation Order* ¶ 798 (finding that capping "ensures that no rates increase during reform, and that carriers do not shift costs between or among other rate elements, which would be counter to the principles we adopt today.").

3. The Same Approach Is Mandated For Transit Services And Access Tandem Switching And Transport Provided By Intermediate Carriers

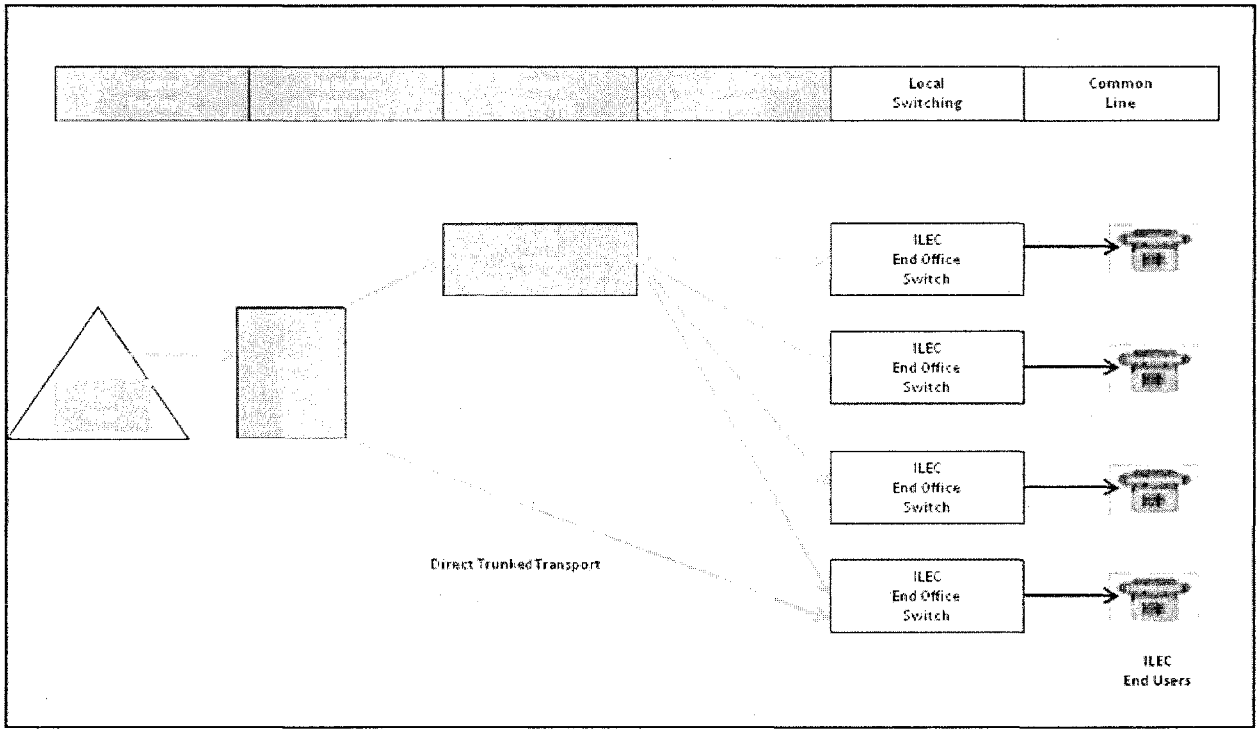
The Commission should take the same approach for "transit" services, addressed in Paragraphs 1311 to 1313 of the *FNPRM.* As with the terminating carrier transport services addressed immediately above, the Commission lacks authority to mandate bill and keep for these local and intraLATA transit services and access tandem switching and transport (or jointly provided switched access (JPSA)) services provided by intermediate carriers. These services are likewise subject to the constitutional requirement that carriers have a reasonable opportunity to recover their costs, and either the specific pricing standards set forth in section 252(d)(2) or the section 201 "just and reasonable" pricing standard.[31] And, the preferred treatment from a policy standpoint is that these services also be subject to a lighter a regulatory touch.

These services are essentially the elements *an intermediate carrier* (*i.e.*, a carrier other than a terminating carrier) may provide that are not subsumed in the bill and keep end state or the transition thereto. The Commission describes these services at Paragraph 1311 of the *FNPRM*:

> Currently, transiting occurs when two carriers that are not directly interconnected exchange non-access traffic by routing the traffic through an intermediary carrier's network. Thus, although transit is the functional equivalent of tandem switching and transport, today transit refers to non-access traffic, whereas tandem switching and transport apply to access traffic. (Footnote omitted.)

These services arise wherever the terminating carrier does not own the tandem in the serving area and a third-party carrier provides that functionality. The services that can conceivably fall into this category can also be diagrammed for clarity purposes, once again referencing the Commission's Paragraph 1306 diagram. The grey-shaded boxes and arrows below identify the functions at issue:

[31] *See* text, *supra*, pp. 4-5, 9-10.



As the Commission accurately acknowledges, these services today are considered transit when provided in connection with local and intraLATA traffic and JPSA when provided in connection with access traffic.[32] Regardless, the *USF/ICC Transformation Order* specifies that the transition it establishes leaves local and intraLATA transit services untouched[33] and subjects access "transit" or JPSA services to the cap but otherwise leaves those services untouched.[34] The case for leaving this light touch approach or even moving these services to de-regulation is at least as strong for these services as for the terminating carrier transport services discussed above.

[32] *USF/ICC Transformation Order* ¶¶ 1311-1313.

[33] *Id.* ¶ 1311 and n. 2367. *See also,* Rule 51.701 (c), (d), and (e), containing definitions which, by their terms, exclude both local and intraLATA transit. Notably, intraLATA toll transit scenarios have often been handled identically to local transit and subjected to negotiated agreements. The Commission should clarify that those arrangements are also left untouched by the *USF/ICC Transformation Order*.

[34] *USF/ICC Transformation Order* ¶¶ 819, 1312. *See also*, Rule 51.903 and 51.907 generally and particularly Rule 51.907(a).

Indeed, for local and intraLATA transit services, those services should already be deemed completely de-regulated services where prices are established by the market and there are many competitive alternatives.[35] There is no reason to treat access "transit" or JPSA services any differently. The capping of rates for these services already ensures that carriers will not be able to shift costs to them from end office functions. And for both local and intraLATA transit and access "transit," these services are, by definition, provided by carriers that do not have an end user in the call flow. They must be able to obtain compensation from other carriers. If not, the Commission will leave providers with no ability to recover their cost, will stifle competition and will create arbitrage opportunities.

4. This Same Approach Is Mandated For Other Access And Non-Access Rate Elements Not Touched By The *USF/ICC Transformation Order*

In Paragraph 1314 of the *FNPRM*, the Commission seeks comment as to how it should address other rate elements not addressed by the transition set forth in the *USF/ICC Transformation Order*.[36] Once again, the Commission clarifies that the *USF/ICC Transformation Order* does not specify any transition for these services, which include for example, the variety of flat rate charges and signaling.[37] The proper treatment for these other charges follows easily from the rationale detailed above -- both in terms of applicable constitutional and statutory limits to the Commission's legal authority and the preferred policy

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[35] *See* CenturyLink Apr. 18, 2011 Comments at 75-77 (discussing clarifications with respect to transiting, including that transit service is not subject to sections 251 and 252 and that transit service providers have no mandatory obligation to provide such service). The Commission should clarify that the treatment of these transit services in a bill and keep end state will be consistent with these principles and, among other things, allow carriers to implement that finding through change of law provisions -- for example, allowing carriers to amend prior arrangements where carriers in certain states may have been required to provide transit at TELRIC rates.

[36] *FNPRM* ¶ 1314.

[37] *USF/ICC Transformation Order* ¶¶ 821, 1297.

approach. From a legal standpoint, the Commission cannot impose bill and keep for these functions.[38] From a policy standpoint, with respect to the variety of flat rate charges that are also not addressed by the *USF/ICC Transformation Order* transition (*e.g.,* database charges and non-recurring charges), those elements should follow the path of other access elements discussed above that fall outside of the bill and keep mandate. These services are likewise arguably subject to the cap established in the *USF/ICC Transformation Order*.[39] This cap already ensures that carriers will not be able to shift costs to these rate elements from end-office functions. They are separately charged for today and carriers should be able to separately charge for them going forward. Ultimately, the Commission should move toward de-regulation of these charges.

CenturyLink addresses the proper treatment for signaling charges immediately below.

5. The Treatment For Signaling Charges Should Track With Associated Access And Non-Access Functions

In Paragraph 1297 of the *FNPRM*, the Commission acknowledges that it also does not specify the transition for signaling charges and, thus, raises the question of how signaling charges should be treated in a bill and keep end state or a transition thereto.[40] There are a variety of signaling charges. In essence, there are signaling charges associated with virtually every access function that a terminating or intermediate carrier provides. Additionally, some carriers provide free-standing or transient signaling services, whereby signaling functionality is sold that is not associated with any other access function that the carrier provides. Because of this, the ICC treatment for signaling charges should track with the terminating function the signaling services are associated with, if any. This approach provides clarity for every conceivable type of

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[38] *See* text, *supra*, pp. 4-5, 9-10, for a discussion of applicable constitutional and statutory limits.

[39] *See* Rule 51.705(c) for Non-Access Reciprocal Compensation and Rules 51.903 and 907 generally and particularly Rule 51.907(a) for Access Reciprocal Compensation.

[40] *FNPRM* ¶ 1297.

signaling. In other words, per-message signaling charges associated with terminating end office switching should be handled like terminating end-office switching charges. That is, any intrastate charges higher than interstate access should be reduced to interstate levels in two steps in years one and two.[41] Thereafter, both intrastate and interstate per-message signaling charges associated solely with end-office switching should be encompassed in the years 3-5 reductions to $.0007 and so forth.[42] Likewise, signaling associated with terminating tandem switching and tandem transport or the variety of terminating carrier common and dedicated transport scenarios discussed above in Section II.A.2, *supra*, should follow the relevant path for the associated element. For signaling associated with tandem switching or tandem transport provided by the terminating carrier who owns the tandem in a serving area, associated signaling charges would track with the treatment of those services -- *i.e.,* would be reduced to interstate levels in years one and two, would be untouched by the years 3-5 reductions to $.0007 for end-office switching charges, and would be eliminated in year 6.[43] For signaling associated with common or dedicated transport provided by a terminating carrier falling outside the bill and keep transition, associated signaling charges would track with the treatment of those services as would the signaling transport provided.[44] For signaling associated with terminating tandem switching or tandem transport provided by an intermediate carrier, associated signaling charges would track

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[41] *See* Rule 51.903(d) (defining "*End Office Access Service*") and Rule 51.907 (specifying the transition for "*End Office Access Service*" as part of "Transitional Intrastate Access Service" for Access Reciprocal Compensation and Rules 51.701(c), (d), and (e) and 51.705(c) for Non-Access Reciprocal Compensation).

[42] *Id.*

[43] *See* Rule 51.903(d) (defining "*Tandem-Switched Transport Access Service*") and Rule 51.907 (specifying the transition for "*Tandem-Switched Transport Access Service*" as part of "Transitional Intrastate Access Service") for Access Reciprocal Compensation and Rules 51.701(c), (d), and (e) and 51.705(c) for Non-Access Reciprocal Compensation.

[44] *See* Section II.A.2, *supra*.

with the treatment of those services -- *i.e.*, they would be capped but otherwise untouched by the reform.[45] Transient signaling -- *i.e.,* signaling sold on a free-standing basis and not associated with another function sold by the provider -- would be, by definition, completely untouched by the reform.

6. The Commission Should Clarify The Rules For Network Edge And POIs For A Bill And Keep End State

The approach outlined above for the treatment of various transport and other access elements that fall outside of the bill and keep mandate in the *USF/ICC Transformation Order* and the transition thereto also leads to a consistent view of the network edge and POI issues raised in the *FNPRM.* As the Commission acknowledges, defining the network edge is "a critical aspect to bill-and-keep."[46] CenturyLink also agrees with the beginning premise in the *FNPRM* that "the 'edge' is the point where bill and keep applies, a carrier is responsible for carrying, directly or indirectly by paying another provider, its traffic to that edge."[47] And CenturyLink agrees with another fundamental premise of the *FNPRM* section on network edges

[45] *See* Section II.A.3, *supra*.

[46] *FNPRM* ¶ 1320.

[47] *Id.* "Edge," thus, is to be distinguished for purposes of this discussion from physical point of interconnection. This discussion can become confused because the term point of interconnection (POI) sometimes is used to refer to either concept. Because of this, the Commission should, for a bill and keep end state, clarify that the point of physical interconnection may be different from the point of financial responsibility. It should also clarify that, to the extent additional functionality is provided by a terminating carrier to transport traffic from the physical point of interconnection to an edge or point of financial responsibility that lies deeper in a terminating carrier's network, terminating carriers remain free to charge separately for those services. The Commission should also clarify that the following rule should apply regarding physical point of interconnection as distinct from financial edge: each carrier should be required to establish *at least* one point of physical interconnection per contiguous service area in each LATA. Where a given carrier has non-contiguous service territories within a LATA, connecting carriers are required to connect at every tandem in a LATA. But, in that instance, rules are also required to specify when connecting carriers can use a third-party tandem versus direct connection as discussed in CenturyLink's prior proposal regarding POIs/edge. CenturyLink discusses this issue in the text, pages 23 to 24, *infra*.

and POIs -- that it expects that current, albeit somewhat distinct, edge and POI concepts in effect in the historic reciprocal compensation and access frameworks will continue during the transition to bill and keep.[48] The *FNPRM* questions thus focus on what edge and POI rules should apply in a bill and keep end state where all traffic *(i.e.*, local and access) is exchanged based on the same rules. And, finally, CenturyLink does not attempt to address here the distinct edge and POI issues implications associated with IP interconnection. CenturyLink addresses those issues separately in Section II.C, *infra*.

It is important that the Commission maintain the economic and structural balance of PSTN interconnection in the bill and keep end state, which requires adjustments to rules for network edges and balance of traffic to account for reduced ICC in the face of continuing carrier of last resort obligations and end-user rate regulation. Altering this balance risks damaging not just universal service and consumer welfare but, also the efficient evolution to IP-based networks, which have a different economic and structural equilibrium. Accordingly, the Commission should establish a default network edge for carriers of last resort (COLR), particularly where accompanied by end-user rate regulation, that establishes the edge for traffic terminating to the ILEC's end users at the ILEC's first point of switching in the call path to the ILEC called party. Building from this foundational rule, IXCs, competitive carriers and CMRS providers should be financially responsible for transporting that traffic in the other direction as well from that same point on the ILEC network. This same edge rule should apply even to the extent that, in a given traffic arrangement, traffic only flows in one direction. This rule would also be subject to specific guidelines regarding when carriers would be required to use dedicated rather than common/tandem transport connections to the called party's end office. Those

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[48] *FNPRM* ¶ 1315 ("As discussed in the Order, we expect that the reforms adopted today will not upset existing interconnection arrangements or obligations during the transition.").

conditions could effectively change the edge in a given traffic flow. In the scenario where the end-office owner also owns the tandem, the current industry practice would apply -- *i.e.,* carriers must purchase separately charged direct transport facilities to the end office when their capacity at that end office reaches the equivalent of a DS1. Or, the Commission could adopt an alternative threshold in order to avoid tandem exhaust in this context. In the scenario where the end-office owner does not own the tandem, CenturyLink stands by its earlier proposal addressing that subject, which also addressed the subject of POI and edge more generally in a bill and keep end state. That proposal, which was included in CenturyLink's comments in the 2011 proceedings leading to the *USF/ICC Transformation Order* and is specifically cited in the *FNPRM*, used both edge and POI terminology to refer to rules for financial responsibility. That proposal was as follows:

> CenturyLink agrees with the high level premise that the volume of traffic exchanged with a carrier should govern the number and locations of network edges/POIs. And, CenturyLink agrees at a high level with the principle that competitive carriers should be allowed to continue to use a third-party intermediary tandem owner to exchange small volumes of traffic with smaller ILECs who subtend a foreign ILEC tandem. However, the Commission must also clarify the following rules to enable reasonable network architecture requirements for the proper exchange of traffic:
>
> The LATA will continue to govern how carriers interconnect their networks, including traffic exchanged with CMRS carriers.
>
> Traffic volumes should dictate the number of POI locations for traffic exchanged with an ILEC (including traffic flowing in both directions).
>
> When establishing POIs/network edges, competitive carriers are financially responsible for establishing and maintaining direct interconnection facilities.
>
> Provided that traffic volumes are below a defined appropriate threshold, competitive carriers will have the economic option of exchanging traffic on an indirect basis via the foreign ILEC tandem under section 251(a) when an ILEC end office subtends a foreign ILEC tandem.

> Competitive carriers that make the economic choice to utilize a third-party intermediary provider to exchange traffic with an ILEC who subtends a foreign tandem must assume financial responsibility for costs that reside outside that ILEC's serving territory, including transit costs for traffic originating in both directions.[49]

The Commission should adopt a similar traffic volume threshold in this context -- *i.e.*, carriers must connect directly with the end office when their capacity reaches the equivalent of a DS1. This approach should collectively form the basis of default edge and POI rules in a bill and keep end state, subject to negotiation of alternatives by the parties in any given contractual relationship as the Commission suggests in Paragraph 1318 of the *FNPRM*.

The Commission should reject the alternative edge proposals cited in the *FNPRM*. The edge proposal reflected in Paragraph 1320, which essentially proposes an approach where all originating carriers must carry traffic to the edge of the terminating carrier regardless of the type of carrier, ignores the unique obligations and function of the tandem-owner ILEC and does not adequately balance the costs of transporting traffic, particularly in situations where traffic is not balanced (*e.g.*, one-way dial-up ISP-bound traffic). As discussed in Section II.C, below, CenturyLink supports an approach to POIs and edge in the all-IP end state of the future that treats all carriers the same. But, until that time comes -- *i.e.,* so long as traditional TDM infrastructures continue to play a significant role in interconnection obligations and so long as ILECs continue to carry traditional COLR, end-user rate regulation, and similar obligations, an ILEC-centric view of edge and POI rules is necessary. Similarly, the Commission should reject the amorphous Mutually Efficient Traffic Exchange (METE) and so-called "competitively neutral" edge proposals cited in Paragraph 1321 of the *FNPRM*. Each of these proposals, in addition to ignoring the unique status of ILECs, fails to give any clear rules of the road and will, thus, lead to countless disputes.

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[49] CenturyLink Apr. 18, 2011 Comments at 74-75.

7. The Commission Should Address The Role Of Tariffs And Agreements In The End State In Which All Traffic Falls Under A Section 251(b)(5) Regime

Regarding the issues raised in the *FNPRM* relating to tariffs and agreements, CenturyLink agrees with much of what is proposed but believes the Commission must go further. CenturyLink generally agrees with the premise that carriers should continue to rely on tariffs during the transition while having the ability to negotiate agreements that vary from those tariffs.[50] CenturyLink also supports the proposal in the *FNPRM* that the Commission forbear from tariffing requirements in section 203 of the Act and Part 61 of its rules to enable carriers to negotiate those alternative arrangements.[51] CenturyLink also supports the proposal to extend section 252 interconnection agreement rules to all telecommunications carriers to ensure a more competitively neutral set of interconnection rights and obligations.[52] But, in addition to taking these steps, the Commission must go further. These actions alone will not adequately address the need in a bill and keep end state to have an immediately available default mechanism by which carriers can trigger the default rate and other mechanisms of the Commission's reform without need for individual negotiation. Negotiation can and should be available. But, it can often be time-consuming and ineffective to meet the needs of traffic exchange in the fast-paced world of telecommunications. For this reason, CenturyLink supports the continued availability of a default arrangement of some kind that can be entered into solely through a carrier's unilateral decision to exchange traffic.

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[50] *FNPRM* ¶ 1323.

[51] *Id.* ¶ 1322.

[52] *Id.* ¶ 1323.

8. Arbitrage Is Likely Under A Bill And Keep Regime

In Paragraph 1325 of the *FNPRM*, the Commission asks whether arbitrage is likely to follow the establishment of a mandatory bill and keep ICC regime. Historical experience with ICC arbitrage makes unambiguously clear that arbitrage will inevitably follow wherever an opportunity is presented. Thus, CenturyLink agrees with the comments of other parties demonstrating that a zero rate end state for termination will inevitably promote traffic dumping on terminating carrier networks. For example, one can easily imagine negative effects flowing from the fact that providers with business plans that direct unwanted traffic to end users (*e.g.*, telemarketers) now will face zero cost. Arbitrage concerns also serve as yet another important factor supporting the approach described above regarding the network functions that should be deemed as falling outside the bill and keep end state. Unless this approach is followed, carriers will be incented to not only dump traffic, but to increase the burdens of intermediate and terminating carriers when they provide network service outside of the set of services associated with call termination. In addition to creating further hurdles to the ability of carriers to recover the costs of operating their networks and thereby further stifling investment, arbitrage problems such as these will only increase the harmful impacts to consumers that result from a bill and keep framework. Finally, as noted above,[53] unique concerns arise in the 8YY origination context where certain carriers have imposed higher than allowed charges on 8YY traffic for the access elements that are unique to 8YY. For example, certain carriers have been charging excessive rates for 8YY database queries that far exceed the ILEC rates for the same service. When combined with the other access service rate elements, these rates for 8YY database queries cause the CLECs' overall aggregate access rates to unlawfully exceed the ILEC benchmark. However,

[53] *See* n. 16, *supra*.

these carriers often take the position that, by not placing a separate specific cap on the 8YY database query rate element, the Commission has effectively allowed CLECs to impose whatever charge they wish for this service through their switched access tariffs. This position cannot be squared with the Commission's prior holdings or its expectation "that CLECs will not look to this category of tariffed charges to make up for access revenues that the benchmark system denies them."[54] Given the Commission's prior unequivocal statements that the ILEC benchmark is "a per-minute cap for all interstate switched access service charges,"[55] and that "the aggregate charge for these services, however described in their tariffs, cannot exceed our benchmark,"[56] further clarification should not be required. But, the Commission could go a long way toward eliminating this particular form of arbitrage by clarifying that the toll free database rate element for switched access services associated with toll free calls should not be excluded from the ILEC benchmark, but rather is included in the per-minute cap for interstate toll free switched access service charges.

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[54] *In the Matter of Access Charge Reform; Reform of Access Charges Imposed by Competitive Local Exchange Carriers,* Seventh Report & Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 9923, 9946 ¶ 56 and n. 128 (2001) (*Seventh Report and Order*). Sprint first raised the issue of a potential separate benchmark for 8YY database query charges late in the proceeding and the Commission declined to address it further "[g]iven the dearth of record evidence" on it at the time. *Id.* However, this did not mean that the toll free database element for switched access services associated with toll free calls was excluded from the ILEC benchmark.

[55] *Id.* ¶ 55.

[56] *Id.*

B. Further Reform Of End User Charges And CAF ICC Support Is Not Warranted

1. The Commission Should Not Impose Further Constraints On ARC Charges

In Paragraph 1327 of the *FNPRM*, the Commission noted that intercarrier compensation-replacement CAF support for price cap carriers is subject to a defined sunset date and asks whether it should adopt a defined sunset date for ARC charges.[57] CenturyLink maintains its position, stated above and in numerous prior filings, that a mandated bill and keep ICC regime, particularly one with a limited recovery mechansim such as that established in the *USF/ICC Transformation Order* is both legally impermissible and unwise as a policy matter.[58] But, a fundamental element of the Commission's basis for justifying the imposition of bill and keep in the *USF/ICC Transformation Order* was its determination that a bill and keep regime better aligns cost causation principles since it compels a terminating carrier to look to its own end users for recovery of the costs of operating its network.[59] The availability of the ARC was also a key factor cited by the Commission in finding that it had met its legal obligation to give carriers a reasonable opportunity to recover their costs.[60]

The recovery mechanism established in the *USF/ICC Transformation Order* uses a static analysis that fails to recognize increased customer churn and permits a maximum recovery of only 81% of lost revenue in the first year, then further reduces eligible recovery on a straightline

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[57] *FNPRM* ¶ 1327.

[58] CenturyLink Oct. 21, 2011 Submission at 2-5.

[59] *USF/ICC Transformation Order* ¶ 746 ("...bill-and-keep merely shifts the responsibility for recovery from other carrier's customers to the customers that chose to purchase service from that network plus explicit universal service support where necessary.").

[60] *See, e.g.*, *id.* ¶ 924 ("We establish a rebuttable presumption that the reforms adopted in this Order, including the recovery of Eligible Recovery from the ARC and CAF, allow incumbent LECs to earn a reasonable return on their investment.").

10% per year thereafter, and then sunsets the safety net that permits a carrier to recover the "full" permitted amount of (ever dwindling) eligible recovery to begin with (*i.e.*, the CAF fund) within six years. Thus, a strong case can be made that it already fails to satisfiy both the critical policy underpinning that carriers can now look to their end users to recover their costs and the constitutional requirement that carriers have a reasonable opportunity to recover costs.[61] But, it is beyond debate that the complete elimination of any recovery mechanism whatsoever is fatally flawed. ILECs, be they rate of return carriers or price cap carriers, have no unilateral ability to increase end-user rates and generally can only do so when the Commission or state commissions permit them to do so through charges like the ARC. Moreover, with declining customer bases, carriers have even fewer customers to recover costs from. At the same time, competition is increasingly vibrant -- thereby already constraining the ability of carriers to raise prices where they have the flexibility.

To impose a new ICC regime based on a foundational finding that carriers can and should look to their own end users for cost recovery, while simultaneously eliminating the only mechanism by which carriers might do that, would represent a classic case of arbitrary and capricious agency action. Intercarrier compensation-replacement CAF support already sunsets completely and the ARC will phase down and approach $0 under the terms of the *USF/ICC Transformation Order* which define Eligible Recovery to decline over time. The Commission should not impose further constraints on ARC charges and, in fact, should loosen existing constraints by providing additional pricing flexibility. Such action would be consistent with the policy objective of greater broadband network deployment and competitive equity.

[61] *See* CenturyLink Oct. 21, 2011 Submission at 2-5 (discussing applicable statutory and constitutional requirements, including the section 252(d)(2) and section 201 "just and reasonable" pricing standards and Fifth Amendment requirements).

2. The Commission Should Not Impose Further Constraints On CAF ICC Support

Similarly, the Commission should not modify the phase-out period for the intercarrier compensation-replacement CAF based on a price cap carrier's receipt of state-wide CAF Phase II support or a "'carriers' transition to broadband networks and associated business plans relying more heavily on revenues from broadband services."[62] As detailed above, the intercarrier compensation-replacement CAF fund and the ARC are already fundamentally inadequate because of the built-in reductions to eligible recovery, competitive forces, and the lack of price flexibility contained in the new rules. Thus, further reduction for any reason is clearly not warranted.

Nor would it make sense in any case from a policy standpoint to further dilute the ICC recovery mechanism based on a carrier's receipt of CAF Phase II support or a carriers's receipt of revenues from new broadband services. The ICC recovery mechanism replaces a small part of a carrier's lost ICC revenue that is/was intended to compensate ILECs for the costs of operating telecommunications networks and the costs of bearing unique policy burdens, such as COLR obligations. CAF Phase II funding and broadband services revenue enable carriers to recover the costs of build-out of new broadband networks. Thus, it would not be appropriate to further reduce ICC-replacement CAF funding availability based on those factors.

3. SLCs Should Be Retained Until Such Time As Retail End-User Rates Are Deregulated

The same concerns discussed above provide the answer to the questions raised in the *FNPRM* regarding whether existing SLCs should be reduced or eliminated or whether other new potential constraints should be placed on existing SLC mechanisms. Existing SLCs were put in

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[62] *FNPRM* ¶ 1328.

place as a recovery mechanism to ensure that carriers recovered a small amount of the ICC revenues they lost in prior reforms where ICC charges were reduced or eliminated. There is no record whatsoever in this or any other Commission proceeding suggesting that SLCs result in over recovery for the interstate cost of the local loop and related network functionality. Nor could such a record be developed in the face of ILECs' low (only 40% of households even buy ILEC voice service), and rapidly declining, share of voice customers and revenues. And of course, the underlying cost allocation methodologies that lead to these revenue calculations, themselves, constitute artificial line drawing based on political compromises from decades ago.

It would be fundamentally unfair to now focus on this isolated aspect of what remains of the access charge regime and conduct the equivalent of a cost docket to establish whether current SLC rates are cost-justified on a stand-alone basis as the *FNPRM* suggests. It would also be legally impermissible to do so in the manner the *FNPRM* suggests, by proposing to now consider in such an exercise how non-regulated services such as broadband and video contribute to the costs of the local loop.[63] Moreover, to do so would turn the mandate of the Commission's *1998 Access Reform Order* on its head. The *Access Reform* and *CALLS Orders* that followed collectively created the SLC regime in existence today.[64] And, in these proceedings, the

[63] *Id.* ¶ 1331.

[64] *In the Matter of Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing End User Common Line Charges*, First Report and Order, 12 FCC Rcd 15982, 16022 ¶ 98, 16093 ¶ 260 (1997), *aff'd sub nom. Southwestern Bell v. FCC*, 153 F.3d 523 (8th Cir. 1998) (*Access Reform Order*); *In the Matter of Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers*, CC Docket Nos. 96-262 and 94-1, Sixth Report and Order, *Low-Volume Long Distance Users*, CC Docket No. 99-249, Report and Order, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Eleventh Report and Order, 15 FCC Rcd 12962, 12973-74 ¶ 27, 12977 ¶ 35 (2000) (*CALLS Order*), *aff'd in part, rev'd in part, and remanded in part*, *Texas Office of Public Util. Counsel et al. v. FCC*, 265 F.3d 313 (5th Cir. 2001), *cert. denied*, *National Association of State Utility Consumer Advocates v. FCC*, 535 U.S. 986 (2002); *on remand*, *Access Charge Reform; Price Cap Performance Review for LECs; Low-Volume Long Distance Users; Federal-State Joint*

Commission established the fundamental underlying mandate that the ultimate goal of reform of the access charge and universal service frameworks can and should be complete deregulation of telecommunications rates in recognition of high levels of competition -- not further cost regulation.[65]

Imposing further constraints on SLCs would also eliminate yet another source of carrier revenue at a time when the Commission has just ordered the complete elimination of ICC revenue for those carriers. As detailed above, the Commission has already failed to provide adequate recovery of the ICC revenues eliminated in the *USF/ICC Transformation Order*. These constraints are in conflict with the overarching policy goal of expanding broadband network availability. And, it would be arbitrary and capricious to follow-up a ruling that carriers must now look to their end users to recover the costs of operating their networks with a ruling even further constraining carriers' ability to do so. The Commission should not eliminate existing SLCs until such time as retail telecommunications rates are completely deregulated such that carriers can have the flexibility to look to their end users to recover costs. And, this is particularly true as long as carriers operate under unique, arcane legacy COLR requirements and other obligations that require them to provide service.

4. No Additional Rules Are Required Regarding The Advertising Of Carrier Services In The Context Of SLC Charges

The *FNPRM* asks whether the Commission should compel LECs to include SLCs and ARCs in their advertised prices, whether such disclosure is required to protect consumers, and

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Board on Universal Service, CC Docket Nos. 96-262, 94-1, 99-249 and 96-45, Order on Remand, 18 FCC Rcd 14976 (2003) (*CALLS Remand Order*).

[65] *Access Reform Order*, 12 FCC Rcd at 16001-02 ¶¶ 44-45; *CALLS Order*, 15 FCC Rcd at 12970 ¶ 20.

whether the Commission has the legal authority to mandate such a disclosure.[66] The Commission should not mandate such disclosure for both legal and policy reasons.

As a threshold matter, there is a serious question about the Commission's authority to regulate carrier advertising. In 2000, assuming such authority, the FCC and FTC issued a joint *Policy Statement* dealing with common carrier advertising.[67] Commissioner Furchtgott-Roth, in a dissenting statement,[68] took exception to the Commission's fundamental assumption that it had the statutory jurisdiction to regulate common carrier advertising. He said

> The Statement asserts FCC authority over advertising based on 47 U.S.C. § 201(b). That Section "requires that common carriers' practices . . . for and in connection with . . . communication service, shall be just and reasonable . . . ." The Statement then contends that advertising qualifies as a "practice" under the statute. As an initial matter, the plain meaning of the term "practices" taken in the context of Section 201 does not clearly reach advertising. This is particularly true in light of Congress' ability and practice of crafting explicit "advertising" jurisdiction over common carrier services when its desires such jurisdiction. For example, Congress has specifically granted the FTC jurisdiction over "advertisements for pay-per-call services." . . . The questionable nature of [the Commission's] authority in this area is best illustrated by [its] own experiences. Despite the statute's sixty-five years on the books, the Statement cites only two cases in which the Commission has equated "practices" with advertising. This

[66] *FNPRM* ¶ 1334.

[67] *In the Matter of Joint FCC/FTC Policy Statement for the Advertising of Dial-Around and Other Long-Distance Services to Consumers,* 15 FCC Rcd 8654 (2000). The *Policy Statement* was issued in the context of the perceived inaccurate and deceptive advertising by dial-a-round providers; and, as is clear from the title of the *Policy Statement* itself, was confined to advertising associated with dial-around and other long-distance services offered by carriers.

Moreover, the *Policy Statement* was issued in part because of the perceived lack of Section 5 authority of the Federal Trade Commission over common carriers (a fact noted in the *Dissenting Statement* of Commissioner Furchtgott-Roth, *id.* at 8671, nn. 1, 9). As recently as 2010, the FTC was lobbying Congress to increase its jurisdiction over common carriers. *See* Prepared Statement of the Federal Trade Commission on Consumer Privacy, Before the Committee on Commerce, Science, and Transportation, United States Senate, July 27, 2010 by Jon Leibowitz, Chairman of the Federal Trade Commission at 2, 24-26.

[68] In his *Dissenting Statement*, Commissioner Furchtgott-Roth noted that it was "politically difficult to dissent" because he was "not against efforts to eliminate fraudulent or misleading advertising." 15 FCC Rcd at 8671. CenturyLink shares his concern.

> lack of precedent alone demonstrates what a significant step these guidelines represent in expanding the reach of the Commission's authority. It is one thing to nibble on the edges of advertising regulation (as these cases arguably did); it is quite another to enter into that arena full stride after sixty-five years of dormancy.[69]

CenturyLink agrees with Commissioner Furchtgott-Roth's analysis of the Commission's lack of jurisdiction over advertising under Section 201(b) of the Act, as well as the legal precedents he cites.[70]

Above and beyond the question of the Commission's fundamental jurisdiction in this area is the question of whether it should be compelling the content of carrier communications absent a compelling government interest.[71] CenturyLink has long been on record arguing that the Commission should not. Certainly in the absence of any demonstrated unreasonable conduct by carriers with respect to their advertising approaches (which vary considerably across service

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[69] *Id.* at 8671-72.

[70] The citations found in Furchtgott-Roth's *Dissenting Statement* at nn. 6-10 remain good law. While the Commission may lack jurisdiction over carrier advertising, its *Joint Policy Statement* is undoubtedly taken into consideration by carriers when they craft their advertising and communicate with existing and potential customers.

[71] *Central Hudson Gas & Elec. Corp. v. Public Service Comm'n,* 447 U.S. 557, 566 (1980). The Commission has previously cited to two cases for the proposition that less than a compelling governmental interest is necessary to mandate factual, uncontroversial speech, specifically *Nat'l Elec. Mfrs. Ass'n v. Sorrell*, 272 F.3d 104 (2d Cir. 2001), *cert. denied*, 536 U.S. 905 (2002) and *New York State Restaurant Ass'n v. New York City Bd. of Health*, 556 F.3d 114 (2d Cir. 2009). *See In the Matter of Consumer Information and Disclosure, Truth-in-Billing and Billing Format, IP-Enabled Services*, 24 FCC Rcd 11380, 11388-89 ¶ 21 n. 48 (2009). CenturyLink has rebutted this position previously. *See* Comments of Qwest Communications International Inc., CG Docket No. 09-158, CC Docket No. 98-170 and WC Docket No. 04-36, filed Oct. 13, 2009 at 47-50. As an initial matter, both cases involved disclosures regarding matters of perceived health and welfare. Additionally, in both cases the Second Circuit construed prior Supreme Court precedent as requiring no more than a "rational" connection or basis for compelled factual speech. However, the case the Second Circuit was construing (*Zauderer v. Office of Disciplinary Counsel of the Supreme Court of Ohio,* 471 U.S. 626 (1985)) never uses the word "rational." In CenturyLink's opinion, other circuits are not likely to follow the Second Circuit's approach.

sector and provider), it would be premature for the Commission to mandate speech regarding a particular element of a carrier's charges.

In inquiring about this topic, the *FNPRM* sites to three commenting parties who raise the ongoing issue of carrier labels of surcharges and the fact that those surcharges might not be expressly called out in advertised materials.[72] These issues are matters of long-standing contention; and they should not be resolved in the current proceeding dealing with one surcharge or line item in isolation. After all, as the Commission has acknowledged: "The law does not require that every item of information that might be useful or interesting to consumers be disclosed in advertising. Only information necessary to prevent consumer deception on a matter of importance . . . must be disclosed."[73]

Advertising media provide limited speech opportunities for carriers to speak to their customers. For every communication the government requires, information that a carrier might prefer to disclose -- and that might be more important and material to their customers -- must either be rejected or added at increased cost to the carrier. Carriers should not be put in the position of having to decide what advertising content to communicate, influenced by the fact that part of that copy (even if short) is government compelled.[74] "If the First Amendment means anything, it means that regulating speech must be a last -- not first -- resort."[75]

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[72] *FNPRM* ¶ 1334 and n. 2420.

[73] *Policy Statement*, 15 FCC Rcd at 8656 ¶ 7, n. 8. It is questionable that the SLC/ARC in most bills would reach the standard reflected in this statement or "significantly affect[ ] the total charge of a . . . service." *Id.* at 8658 ¶ 13.

[74] "[T]he First Amendment guarantees 'freedom of speech,' a term necessarily comprising the decision of both what to say and what *not* to say." *Riley v. National Fed'n of the Blind of N.C., Inc.*, 487 U.S. 781, 796-97 (emphasis in original) (1988).

[75] *Thompson v. Western States Medical Center,* 535 U.S. 357, 373 (2002).

Without demonstrable and substantial proof that the failure to specifically mention SLC/ARC charges in carriers' advertising will cause consumers material harm (*e.g.*, deception), the Commission should allow carriers to address this matter as they deem most appropriate given their knowledge of their customers. In the absence of such evidence, the Commission should not compel speech since "[t]he First Amendment does not permit a remedy broader than that which is necessary to prevent deception, . . . or correct the effects of past deception[.]"[76] Accordingly, before the Commission adopts mandated speech in carrier advertising, it should consider less speech-intrusive alternatives.

C. The Commission Should Allow IP-to-IP Interconnection To Develop Organically, Coincident With The Deployment Of IP Networks

As recognized in the *FNPRM*, reform of the Commission's ICC rules should facilitate and accelerate the transition to next-generation IP networks.[77] In the long run, when all voice customers are served on such networks, IP voice will be just another packet-switched service that can be handled through the flexible, market-driven IP transit and peering arrangements that have facilitated the explosive growth of the Internet, whether or not providers choose to exchange voice traffic separately from other IP traffic. By that time, the industry standards that are manifestly absent today will have developed to ensure that IP voice traffic is transmitted from network to network with QoS similar to that provided on circuit-switched networks today. It should be beyond question that, at that point, there will be little, if any, need for Commission oversight of IP-to-IP interconnection for the exchange of voice traffic.

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[76] *National Commission on Egg Nutrition v. FTC*, 570 F.2d 157, 164 (7th Cir. 1977). Moreover, The Supreme Court has explained that the government's "concern about the possibility of deception in hypothetical cases is not sufficient" to sustain compelled government speech, requiring actual evidence of harm. *Ibanez v. Florida*, 512 U.S. 136, 145, n. 10, 146 (1994).

[77] *FNPRM* ¶ 1340.

This is a critical point, because it narrows the questions on IP-to-IP interconnection in this proceeding to the following: (i) whether additional Commission regulation in this transitional period to ubiquitous IP networks is necessary, and (ii) whether such regulation will hasten the migration to IP networks, and do so without harming the economic and structurally efficient development of those networks. The answer to both questions is "no."

Given that all carriers share the same incentives to migrate to next-generation networks as expeditiously as possible, there is no need for the Commission to develop rules that will distort the natural evolution to IP networks and the interconnection of those networks. Instead the Commission should allow time for industry and standard-setting bodies to develop efficient methods and practices for such interconnection. Reliance on the good-faith negotiations required in the *USF/ICC Transformation Order*, rather than one-size-fits-all regulatory requirements, will also allow IP-to-IP interconnection arrangements to evolve over time as the reach of providers' IP networks expand.

In the event the Commission does establish rules or guidelines for IP-to-IP interconnection, those requirements should apply in the same manner to all providers. Creation of ILEC-specific rules pursuant to section 251(c)(2) is particularly unwarranted. Section 251(c)(2) does not grant CLECs access to a "yet unbuilt superior" network, and the Commission cannot require IP-to-IP interconnection pursuant to section 251(c)(2) without first classifying VoIP as a telecommunications service and a local exchange and/or exchange access service, which it has not done. More importantly, the fundamental economic and policy predicate for the one-sided rules of section 251 is completely absent with respect to IP interconnection. ILECs today carry a minority of voice traffic, serving only 40% of households, and there are numerous other providers, making market-opening rules both unnecessary and market distorting. Such one-sided rules also are not necessary given that ILECs generally are only in the planning stages of the migration to IP networks and, once built, will need to interconnect with existing VoIP networks. In the meantime, VoIP providers may continue to provide VoIP services in the way that they are very successfully doing today.

There also is widespread consensus that the Commission should not force ILECs and other carriers to deploy IP network facilities simply to exchange traffic in IP format. Such short-sighted policies would serve only to divert precious capital resources that could otherwise be used for broadband deployment and upgrades -- including those needed to provide VoIP. Until a provider migrates customers in an area to an IP network, there also would be no useful purpose in requiring IP-to-IP interconnection for calls terminated to those customers, because an IP-to-TDM conversion will be necessary to terminate VoIP-originated calls to those customers. Once those customers are migrated to IP, the terminating provider will have the same incentive as the originating provider to utilize IP-to-IP interconnection.

1. It Is Premature For The Commission To Exercise Any Additional Authority Over IP-to-IP Interconnection

Today, the vast majority of voice customers are still served by circuit-switched networks. Thus, calls originated in IP generally must be converted to TDM before they are terminated to the PSTN. Likewise, industry standards for IP voice traffic are still developing.[78]

In the case of CenturyLink, its existing local networks currently include approximately 3800 circuit switches. The transition of these networks to IP will require the company to replace these switches with packet-based switches, extend IP functionality into the network and reconfigure its local and toll trunking network.

[78] The Alliance for Telecommunications Industry Solutions (ATIS) is developing standards for exchanging traffic in IP format through the Next Generation Carrier Interconnect Task Force. ATIS, Packet Technologies and Systems Committee, http://www.atis.org/0191/ngcitf.asp.

Many of these CenturyLink network facilities reside in remote rural areas that barely produce sufficient revenue to maintain the current network, even with federal and state high-cost support. These areas also tend to have network facilities that currently cannot support VoIP services without costly network upgrades, including the replacement of copper transmission facilities with fiber and the installation of associated electronics needed to deploy broadband services. While CAF support will help fund this transition, immense amounts of private capital will be required to complete this multi-year network transformation.

Particularly given the early stage of this transition, it would be premature for the Commission to adopt rules or otherwise assert additional jurisdiction over IP-to-IP interconnection. Such rules would likely skew the natural development of IP networks and the interconnection of those networks. Absent regulatory intervention, voice providers already have significant incentives to exchange voice traffic in IP once they have converted their networks to IP in a given geographic area, in order to take advantage of the efficiencies and increased functionality of packet-switched technology.

Until that time, VoIP providers will retain the choices they have today for handing off their voice traffic where the terminating provider has not yet established an IP-to-IP interconnection point: an IP voice provider can either exchange its traffic in IP format through an established IP peering arrangement (either directly or through a third party), as some VoIP providers do today, or it can convert its traffic to TDM and use existing interconnection arrangements. Thus, there is no question about a VoIP provider being able to terminate calls to ILEC networks; it just may not be able to do so in the manner that it finds most convenient. As long as VoIP calls are generally terminated to the PSTN, as is the case today, an IP-to-TDM conversion will usually need to take place. Requiring the terminating carrier, rather than the originating IP provider, to do this conversion will have no impact on quality, reliability or homeland security. Rather, it will merely shift the cost of these conversions from the originating IP voice provider, the cost causer, to the terminating TDM voice provider.

Thus, the issue is the appropriate form of interconnection given the technologies used in the interconnecting networks in a particular geographic area. Where both networks are IP, it is in both providers' interest to interconnect in IP. Even CLECs agree, however, that it makes no sense to require an ILEC to build IP facilities simply to accept traffic in IP, unless the ILEC already has an IP network in place.[79] The fact is that there is a legacy TDM network in most areas today and that network cannot be converted to IP overnight.[80] This multi-year migration will require massive investment and extensive network planning to ensure a smooth, efficient transition while maintaining network reliability. The migration also requires the development of uniform PSTN standards for IP-to-IP interconnection. Those standards are far from established. Industry standard-setting activities are still underway, a fact that underscores the grossly premature nature of calls for Commission mandates for IP-to-IP interconnection. Even if the Commission had authority to compel investment in a "yet unbuilt superior" network,[81] the

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[79] *See* COMPTEL *ex parte* Letter in WC Docket Nos. 10-90, *et al.*, filed Aug. 11, 2011, Attachment at 7, n. 13 (COMPTEL Aug. 11, 2011 *ex parte*) ("This paper does not suggest that an incumbent should be required to deploy a Managed Packet transport network to accommodate competitive entrants where it has not done so.").

[80] The efficiency benefits touted by proponents of mandatory IP-to-IP interconnection generally would be achieved only by upgrading the underlying network, rather than simply by mandating IP-to-IP interconnection. *See* Letter from Kathleen O'Brien Ham, VP – Federal Regulatory Affairs, T-Mobile, and Charles W. McKee, VP – Government Affairs, Sprint, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-92, filed Jan. 21, 2011 at 2 (T-Mobile/Sprint Jan. 21, 2011 *Ex Parte* Letter) ("The current PSTN network is inefficient and imposes sizable costs that could be avoided if packet-based technologies were used more extensively and packetized voice calls did not have to be delivered to thousands of legacy circuit switch locations installed over the past century."). As explained below, mandating IP-to-IP interconnection will actually delay the upgrade of legacy circuit-switched networks and the resulting benefits.

[81] *See infra,* Section II.C.3.a.

absence of uniform, broadly established industry standards for IP traffic is reason enough for the Commission to decline to dictate industry technology.

Until conversion of the underlying network in a given geographic area takes place, establishing IP-to-IP interconnection will serve no useful purpose, and will divert scarce capital from more productive uses, such as extending and upgrading the network's broadband capabilities needed to provide VoIP and other IP-based services. As Cox recognizes, there are limits on the Commission's ability "to make the transition [to IP networks] happen sooner than the market would dictate."[82]

The Commission also cannot anticipate the numerous detailed technical issues that are likely to arise in establishing efficient interconnection arrangements. For example, parties will need to determine an efficient number of points of interconnection given the characteristics of the interconnecting networks. And that number may change over time as carriers' networks evolve. Until IP networks are widely deployed and appropriately sized, it may be appropriate to establish local interconnection points when the amount of traffic being exchanged in that geographic area exceeds a particular threshold. Network reliability concerns may also dictate more interconnection points until sufficient redundancy can be assured. There also will likely be a need for special handling of certain types of traffic, such as E911 and Government Emergency Telecommunications Services calls, to ensure they are properly routed or otherwise prioritized.[83]

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[82] Cox Comments, WC Docket Nos. 10-90, *et al.*, filed Apr. 18, 2011 at 18.

[83] Today, voice providers generally route E911 traffic directly to a PSAP, rather than handing off that traffic through interconnection points. Presumably a similar approach will be needed with the deployment of IP-to-IP interconnection arrangements.

Compliance with CALEA requirements also presents difficult challenges for IP networks.[84] Such issues are best resolved through negotiations and industry standard-setting bodies.

The adoption of rules also could disrupt existing peering arrangements for IP data traffic -- even though the Commission lacks authority over those arrangements. A number of parties have suggested that, at least in the long run, IP voice traffic should be handled through existing IP interconnection points.[85] To the extent this happens, any IP-to-IP interconnection rules adopted by the Commission would effectively govern interconnection arrangements for IP data services, despite the Commission's clear lack of jurisdiction over those services. This would be a particularly misguided result given that VoIP traffic constitutes only one percent of overall IP traffic.[86]

There is widespread consensus that voluntary negotiation of Internet peering arrangements has worked remarkably well given the tremendous growth and explosive evolution of the Internet. This regulatory restraint has allowed technology to develop and the Internet to grow and evolve efficiently, with IP interconnection rates, terms and conditions tailored to the nature of the interconnecting providers and the services they provide. The Commission should avoid any action that could disrupt the delicate balance inherent in the IP transiting and peering ecosystem. As noted by Google, Sprint and others, "[i]t is critical that the FCC not allow the

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[84] In 2005, the Commission determined that interconnected VoIP services are subject to CALEA. *See In the Matter of Communications Assistance for Law Enforcement and Broadband Access and Services*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 14989, 14991-92 ¶ 8 (2005), *aff'd sub nom., American Council on Educ. v. FCC,* 451 F.3d 226 (D.C. Cir. 2006). However, standards for CALEA in IP networks continue to evolve as new technologies develop.

[85] *See, e.g.*, AT&T Reply Comments, WC Docket Nos. 10-90, *et al.*, filed May 23, 2011 at 14-15 (AT&T May 23, 2011 Reply Comments); Comments of Sprint, WC Docket Nos. 10-90, *et al.*, filed Apr. 18, 2011 at 17 (Sprint Apr. 18, 2011 Comments).

[86] AT&T May 23, 2011 Reply Comments at 15; Sprint Apr. 18, 2011 Comments at 17.

small tail of voice traffic to wag the very large dog of IP traffic exchange."[87] For all these reasons, the Commission also should not adopt a deadline for carriers to exchange traffic in IP.

2. The Commission Should Allow Carriers To Establish Efficient Solutions For Exchanging IP Voice Traffic Through Good Faith Negotiations, Consistent With Evolving Industry Standards

It is important to keep in mind the ultimate end state for IP voice services. When IP networks are ubiquitous, and have replaced TDM networks, voice service will simply be another application running on IP networks. At that point, no one can credibly argue that Commission regulation over IP-to-IP interconnection for the exchange of voice services will be needed. For decades, providers of IP data services have successfully exchanged traffic through commercially negotiated arrangements, without regulatory oversight. This has occurred despite rocketing growth, continual evolution and a stunning variety of IP applications on the Internet, including those that require real-time quality, such as video streaming and voice services.[88] There is no reason to believe that additional IP voice traffic will somehow alter the conditions that have led to a well-functioning IP transit and peering market without regulatory intervention.[89]

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[87] Letter from Ad Hoc, Google, Skype, Sprint, Vonage, WC Docket Nos. 10-90, *et al.*, filed Aug. 18, 2011 at 9. *See also* Sprint Apr. 18, 2011 Comments at 18 (the Commission need not address the exchange of non-voice IP traffic).

[88] Today, some VoIP providers' traffic traverses IP transit and peering arrangements without any regulatory oversight. While the quality of such calls ultimately may be enhanced through the development of industry standards for QoS and prioritization, such standards will develop naturally, without need for government intervention. *See also* Cbeyond , *et al.* Reply Comments, WC Docket Nos. 10-90, *et al.*, filed May 23, 2011 at 11 (asserting that "much like the exchange of circuit-switched voice traffic between TDM networks, the exchange of facilities-based VoIP traffic requires the use of dedicated transmission facilities between IP networks that support the necessary Quality of Service ('QoS') needed to provide facilities-based VoIP services.").

[89] As noted, some parties have suggested that VoIP constitutes only about one percent of all consumer IP traffic today and that this percentage will likely decline over time. *See* Sprint Apr. 18, 2011 Comments at 17 (citing a 2010 study by Cisco).

With this in mind, the key question here is the extent to which additional Commission regulation is necessary or will be beneficial during this transitional period to ubiquitous IP networks. Given the universal incentives to migrate to IP networks as expeditiously as possible, there is no need for the Commission to develop rules that will distort the natural evolution of IP networks and the interconnection of those networks. Instead the Commission should allow time for industry and standard-setting bodies to develop efficient methods and practices for interconnecting IP networks.

Individual carriers will develop their own plans for transitioning their local networks to IP, based on the per-subscriber cost of the transition, forecasted savings from the transition, available capital and the carrier's business model.[90] It should be expected that ILECs will migrate their local networks to IP over a longer period of time than CLECs. Unlike CLECs, ILECs generally are subject to COLR obligations that require them to make voice service available throughout their service territory, including remote areas that are costly to serve. In contrast, most CLECs target more densely populated areas, where network costs per-subscriber tend to be much lower.[91] Ultimately, however, all carriers share the same incentives to convert their networks to IP to realize the efficiency, cost savings and improved functionality inherent in

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[90] Relevant factors in a carrier's business model can include the extent to which the carrier has developed new IP services to sell to its customers, the expected revenue from those services and the demand for handling IP traffic both for its own customers and other carriers.

[91] Another distinguishing factor between ILEC voice providers and newer entrants, such as cable companies, is that the latter have been able to take advantage of newer technologies, such as packet switches, in their initial roll-out of voice services. In addition, ILECs must consider existing customers' willingness to give up the perceived superior reliability -- particularly in natural disasters -- and call quality of TDM voice services relative to VoIP services. Development and implementation of QoS standards for VoIP calls may reduce these perceived differences over time.

IP technologies.[92] In the meantime, requiring carriers to establish IP-to-IP interconnection arrangements in advance of their plans to upgrade their underlying networks to IP in a particular area will only delay those upgrades because it will force carriers to divert capital slated for broadband deployment and upgrades.

By allowing IP-to-IP interconnection arrangements to develop through good-faith negotiations, the Commission also will give providers the freedom to experiment with different types of arrangements and customize interconnection arrangements to the particular needs of the interconnecting providers. In some cases, for example, it may make sense for a provider to use a corporate affiliate to exchange IP voice traffic with other IP providers.[93] Third-party providers of IP-to-IP interconnection also present another alternative to direct interconnection of the calling and called party IP networks.[94]

Finally, reliance on the good-faith negotiations, rather than regulatory-imposed requirements, also will allow IP-to-IP interconnection arrangements to evolve over time as the reach of local IP networks expands.[95] The immense cost of the migration to IP precludes ILECs

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[92] With the Commission's adoption of intercarrier compensation reform, any arguments about ILECs maintaining legacy circuit-switched networks in order to preserve their intercarrier compensation revenue should be put to rest. *See FNPRM* ¶ 1340 ("Under our new framework, even if a carrier historically has relied on intercarrier compensation revenue streams, it need not wait until intercarrier compensation reform is complete to enter IP-to-IP interconnection arrangements.").

[93] Of course the use of IP-to-IP interconnection by an ILEC's long distance affiliate has no bearing on the feasibility of such interconnection for local calls. IP technologies have become standard in long distance networks but are far from ubiquitous in local ILEC networks.

[94] As noted by Neutral Tandem, the competitive market for IP-to-IP interconnection provides a ready alternative to direct interconnection with ILECs. Neutral Tandem Comments, WC Docket Nos. 10-90, *et al.*, filed Apr. 18, 2011 at 1-2.

[95] Regulation -- particularly regulation that tips the scale in favor of one set of providers -- cannot keep pace with rapidly moving market and technical changes. The APA-constrained regulatory process is simply too slow and cumbersome to address conditions that may change significantly over a short period of time. In practice, regulations frequently stay on the books long after their

from transitioning their local TDM networks to IP in a flash cut. Instead, they will likely upgrade their TDM networks market-by-market, based on anticipated demand, the need to replace or augment switching capacity and other factors.[96] When an ILEC converts its local network to IP in a given geographic area, it will then generally be appropriate for the ILEC to establish arrangements with other IP voice providers to exchange traffic in IP for that area.[97] If the ILEC's surrounding service territory is still served via TDM, it may be necessary to establish a local IP interconnection point for the area that has been converted to IP.[98] As nearby areas are transitioned to IP, individual interconnection points may be able to handle the exchange of traffic for larger geographic areas. At the same time, requiring ILECs, in essence, to overbuild their current TDM infrastructure would undermine the efficiencies inherent in IP networks, including efficient consolidation of gateways. The traditional hub and spoke architecture of TDM networks may not be an efficient manner of interconnecting IP networks.[99] Over time, local IP

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utility has faded and they have become harmful to the public interest. *See, e.g., In the Matter of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to its Broadband Services; Petition of BellSouth Corporation for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to its Broadband Services, Memorandum Opinion and Order*, 22 FCC Rcd 18705, 18730-31 ¶ 46 (2007) (eliminating application of dominant carrier regulation found to be harmful to the public interest).

[96] In a few instances, CenturyLink has replaced a TDM switch with a packet switch, but that switch is essentially functioning in TDM, because CenturyLink has not made the other network upgrades necessary for IP functionality, including the installation of session border controllers. Until those upgrades are made, CenturyLink is not capable of interconnecting in IP format with respect to the local networks served by those switches.

[97] For called parties that are still served by a TDM network, there is no practical reason to disrupt existing TDM interconnection arrangements. It is only when a provider migrates its voice customers in a given area to an IP network that there is value in establishing IP-to-IP interconnection arrangements for calls to those customers.

[98] Ultimately LATAs will have no significance in IP networks and in the long run should not be used for any kind of demarcation in those networks or the regulation of those networks.

[99] A virtual replication of the existing network could occur, for example, if a CLEC can demand IP-to-IP interconnection at any place it has a TDM interconnection point with an ILEC today.

interconnection points for the exchange of voice services will likely give way to a more uniform set of interconnection points driven by market demands and industry standards. Government regulation is simply not capable of keeping up with these ongoing changes and may result in inefficient network architectures.[100]

3. Any Rules Or Guidelines Should Apply In The Same Manner To All Providers

As discussed above, it is premature for the Commission to exercise any authority over IP-to-IP interconnection for the exchange of voice traffic. Instead, the Commission should allow providers to establish IP-to-IP interconnection arrangements through good faith negotiations, subject to the development of industry standards. In the event the Commission does assert authority over such interconnection, however, applicable law and sound public policy preclude ILEC-specific requirements.

a. There is no legal basis for the Commission to adopt ILEC-specific rules under section 251(c)(2)

Section 251(c)(2) does not require ILECs to provide IP-to-IP interconnection for the exchange of voice traffic.[101] That is the case for at least two reasons.

First, section 251(c)(2) does not grant CLECs access to a "yet unbuilt superior" network. As the Eighth Circuit found in 1997, the federal statute "does not require incumbent LECs to

[100] For example, regulatory requirements that permanently enshrine the hub and spoke architecture currently found in most ILEC local networks would prevent ILECs from taking advantage of the most efficient method for routing IP calls, as have many of their competitors.

[101] *See* AT&T May 23, 2011 Reply Comments at 18-21. *See also* CenturyLink Reply Comments, WC Docket No. 11-119, filed Aug. 30, 2011 at 3-10; Verizon Comments, WC Docket No. 11-119, filed Aug. 15, 2011 at 8-21.

provide [their] competitors with superior quality interconnection."[102] Section 251(c)(2) requires access "only to an incumbent LEC's *existing* network -- not to a yet unbuilt superior one."[103]

The deployment of IP-to-IP interconnection does not merely entail the deployment of a new type of interconnection in ILEC networks; it will require the construction of new networks.[104] ILECs will need to deploy extensive new network architecture and equipment to exchange and transport IP traffic and convert it to TDM for switching and termination on the existing PSTN. Like other ILECs, CenturyLink is working toward a long-term evolution of its network, including migrating to IP switches in its local ILEC network. However, such a migration will extend over a number of years. Today, CenturyLink's ILEC affiliates generally are not offering IP-based services and generally have not deployed the media gateways and other functionalities that are necessary to exchange traffic in IP format and convert it to TDM for termination. Therefore, CenturyLink could not provide the section 251 IP-to-IP interconnection that CLECs are seeking without billions of dollars of network investment. Such investment is not required by the statute or Commission rules. As the Commission has noted, "there historically have not been Commission rules governing IP interconnection for the exchange of Internet traffic."[105] The Commission's interconnection rules adopted in 1996 dealt only with TDM interconnection and the "technically feasible" locations where such interconnection could

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[102] *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 813 (8th Cir. 1997), *subsequent history omitted.*

[103] *Id.* at 813 (emphasis in original).

[104] Taken to the extreme, ILECs would be required to deploy new gateway facilities to accept traffic in TDM or IP format, whichever is an interconnecting carrier's preference, at all points throughout each ILEC's local network, regardless of the technology the ILEC itself uses.

[105] *In the Matter of Connect America Fund, A National Broadband for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554, 4773-74 ¶ 679 (2011).

be provided.[106] Given the current state of ILEC networks, the Commission cannot lawfully mandate IP-to-IP interconnection pursuant to section 251(c)(2).

Second, the Commission could not require IP-to-IP interconnection pursuant to section 251(c)(2) without first classifying VoIP as a telecommunications service and a local exchange and/or exchange access service. The Commission has not done so.[107]

Given the fatal lack of this prerequisite, some providers have asserted that they are entitled to IP-to-IP interconnection under the statute even if VoIP is an information service.[108] This position has no support in the statute or the Commission's rules. Section 251 interconnection is available only to providers of telecommunications services.[109] And, in any case, CLECs are able to obtain TDM interconnection for their VoIP traffic today, though not on terms that would shift the cost of the necessary IP-to-TDM conversion to the ILEC, as they may like.

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[106] 47 C.F.R. § 51.305(e) ("Previous successful interconnection *at a particular point in a network*, using particular facilities, constitutes substantial evidence that interconnection is technically feasible *at that point, or at substantially similar points*, in networks employing substantially similar facilities."). (Emphasis supplied.)

[107] *USF/ICC Transformation FNPRM* ¶ 1387 ("[T]he Commission has not broadly determined whether VoIP services are 'telecommunications services' or 'information services,' or whether such VoIP services constitute 'telephone exchange service' or 'exchange access.'").

[108] *See, e.g.,* Cablevision Reply Comments, WC Docket Nos. 10-90, *et al.*, filed May 23, 2011 at 7-9 (Cablevision May 23, 2011 Reply Comments); Paetec, *et al.*, Reply Comments, WC Docket Nos. 10-90, *et al.*, filed May 23, 2011 at 2-5 (Paetec May 23, 2011 Reply Comments).

[109] *In the Matter of Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection Under Section 251 of the Communications Act of 1934, as Amended, to Provide Wholesale Telecommunications Services to VoIP Providers*, Memorandum Opinion and Order, 22 FCC Rcd 3513, 3520 ¶ 14 (2007) ("[W]e emphasize that the rights of telecommunications carriers to section 251 interconnection are limited to those carriers that, at a minimum, do in fact provide telecommunications services to their customers, either on a wholesale or retail basis.").

b. Requiring IP-to-IP interconnection pursuant to section 251(c)(2) would also be poor public policy

Mandating IP-to-IP interconnection pursuant to section 251(c)(2) would also be badly misguided policy even if it were lawful. In particular, it would conflict with the rationale underlying the one-sided nature of section 251(c)(2).[110] That provision was intended to address perceived "network effects," by which the ILECs' larger TDM networks conferred on the ILECs superior bargaining power when negotiating interconnection arrangements with fledgling CLEC providers of voice services.[111]

That premise no longer holds true. It is the cable companies and other CLECs that generally have extensive IP networks,[112] while ILECs for the most part are just beginning to deploy IP in their local networks. This migration is occurring while intense competition and technological transformation have dramatically altered the ILECs' market position for voice services. Since 2000, ILECs have lost approximately half of their access lines.[113] The number of

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[110] Unlike section 251(a)(1), which establishes uniform interconnection obligations on all telecommunications carriers, section 251(c)(2) imposes more onerous obligations solely on ILECs when they interconnect with other telecommunications carriers.

[111] *See* Jonathan E. Nuechterlein & Philip J. Weiser, *Digital Crossroads: American Telecommunications Policy in the Internet Age* 4-5, 75 (2007).

[112] *See* Cablevision May 23, 2011 Reply Comments at 4; Paetec May 23, 2011 Reply Comments at 3.

[113] In 2000, ILECs had approximately 188 million access lines. *See* Trends in Telephone Service, Industry Analysis and Technology Division, Wireline Competition Bureau at 7-3 (rel. Sep. 2010), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf. At the end of 2010, ILEC access lines (including VoIP subscriptions) had declined to 98 million, a drop of 48%. Local Telephone Competition: Status as of December 31, Industry Analysis and Technology Division, Wireline Competition Bureau at 4 (rel. Oct. 2011), available at Local Telephone Competition: Status as of December 31, 2010, Industry Analysis and Technology Division, Wireline Competition Bureau at 1, 5 (rel. Oct. 2011), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-310264A1.pdf. Access lines are predicted to continue to decline over time. JSI Capital Advisors Blog, *Communications Industry Forecast 2011-2020: ILEC and CLEC Access Lines* ("Landlines to Fall at a 14.4% Pace Through End of Decade"), available at http://www.jsicapitaladvisors.com/the-ilec-

wireless connections in the U.S. long ago eclipsed the number of wireline connections, and 32% of American households have now "cut the cord" and rely exclusively on wireless voice service.[114] In short, ILECs are not incumbent providers of IP voice services,[115] and a section 251(c)(2) mandate is not necessary to ensure IP-to-IP interconnection for voice services.

As IP networks are more widely deployed, it will be in the interests of all providers to engage in IP-to-IP interconnection. In the meantime, during the transition to ubiquitous IP markets, CLECs will continue to be able to interconnect and hand off IP voice traffic to ILECs in the ways they do today -- through TDM interconnection arrangements, commercial transit and peering arrangements and other arrangements with third parties.

Sprint has misleadingly suggested that "[c]ompetition in voice services cannot occur unless competing voice networks interconnect with each other."[116] Both factual premises to this statement -- that there is currently a lack of competition in voice services and that competing networks are not interconnecting today -- are wrong. There is no evidence that VoIP providers are being harmed in the market by the absence of IP-to-IP interconnection arrangements. On the contrary, VoIP continues to be a smashing success. Cable companies and other competitors to ILECs have successfully deployed VoIP services on a widespread basis -- while winning customers away from ILECs -- without a regulatory mandate for IP-to-IP interconnection.

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advisor/2011/10/20/communications-industry-forecast-2011-2020-ilec-and-clec-acc.html (Oct. 20, 2011).

[114] Blumberg & Luke, *Wireless Substitution: Early Release Estimates From the National Health Interview Survey, January to June 2011*, Center for Disease Control National Center for Health Statistics (rel. Dec. 21, 2011), available at http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201112.pdf.

[115] In addition, "the interdependence of IP networks, along with the multiplicity of indirect paths into any broadband ISP's network -- for the transmission of a VoIP call or any other type of IP application -- deprive any such ISP of any conceivable terminating access 'monopoly' over traffic bound for its subscribers." AT&T May 23, 2011 Reply Comments at 11.

[116] Sprint Reply Comments, WC Docket Nos. 10-90, *et al.*, filed May 23, 2011 at 9.

Today, there are more than 32 million interconnected VoIP connections -- 21% of all wireline telephone connections and 31% of all residential wireline telephone connections -- despite the lack of regulatory-mandated IP-to-IP interconnection under section 251(c)(2).[117] And, contrary to Sprint's suggestion otherwise, VoIP networks are, and will continue to interconnect with ILEC TDM networks.

While CLECs sometimes clothe their pleas for regulatory-mandated IP-to-IP interconnection in claims of ILEC exercises of market power, the reality is nothing so sinister. CenturyLink has no interest in "needless TDM conversions."[118] Since CenturyLink generally still serves its customers on TDM networks, conversion of VoIP calls to TDM *is needed* to terminate calls to those customers. When CenturyLink's voice customers in a given area are migrated to an IP network, then CenturyLink too will have an incentive for IP-to-IP interconnection. In the meantime, it is necessary for VoIP providers to use existing TDM interconnection arrangements if they wish to hand off a voice call directly to CenturyLink's TDM network. During this transition to ubiquitous IP networks, permitting VoIP providers to shift the cost of necessary IP-to-TDM conversions to ILEC competitors only would slow the transition to next-generation networks.[119]

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[117] Local Telephone Competition: Status as of December 31, 2010, Industry Analysis and Technology Division, Wireline Competition Bureau at 1, 5 (rel. Oct. 2011), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-310264A1.pdf.

[118] *See* COMPTEL Aug. 11, 2011 *ex parte*, Attachment at 15.

[119] Cablevision openly acknowledges its effort to shift all costs of interconnection to its ILEC competitors, asserting that IP-to-IP interconnection should be subject to TELRIC pricing, that ILECs should be bear the cost of necessary IP-to-TDM conversions as a "network cost" and that ILECs should be responsible for all costs necessary to accommodate IP-to-IP interconnection. Cablevision May 23, 2011 Reply Comments at 5-6; Cablevision Comments, WC Docket Nos. 10-90, *et al.*, filed Apr. 18, 2011 at 7-8.

4. The Commission Should Not Force Providers To Build IP Facilities That They Do Not Already Have In Place

In establishing any rules or guidelines, the Commission should also be careful not to force carriers to build IP facilities that they do not already have in place. Even the CLECs acknowledge that it would make no sense to require a terminating carrier to deploy an IP network to accommodate IP-to-IP interconnection where the terminating carrier has not already deployed that network.[120]

Deploying IP-to-IP interconnection coincident with the deployment of an IP network will have no impact on service quality or functionality, as an IP-to-TDM conversion will continue to be necessary until the underlying terminating network is converted to IP. Where a TDM conversion is "unnecessary,"[121] all parties would agree that the rational outcome generally is for traffic to be exchanged in IP. There is no reason to believe that a terminating provider, including an ILEC, would resist IP-to-IP interconnection in such circumstances.

Where the terminating carrier has not yet deployed an IP network in a given area, however, TDM conversion is necessary to complete the call. If the called party is still served on a TDM network, there is no inherent efficiency in requiring a terminating carrier to accept a call in IP and then convert it to TDM, rather than just accepting the call in TDM as it does today. When the terminating carrier upgrades its network to IP, IP-to-IP interconnection will be rational and efficient.[122] Far from spurring ILECs to deploy IP networks, a regulatory mandate for IP-to-

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[120] COMPTEL Aug. 11, 2011 *ex parte*, Attachment at 7, n. 13, *id.* at 8 (seeking to avoid "unnecessary" IP-to-TDM conversions).

[121] *Id.*

[122] COMPTEL vaguely asserts that "[s]ignificant efficiencies can be achieved wherever the incumbent has deployed a Managed Packet *transport* network, even as most of its subscribers continue to be served using legacy (i.e., circuit-switched) end offices." *Id.* at Attachment at 6, n. 10. However, since a TDM conversion is clearly necessary in such circumstances, this

IP interconnection in advance of deploying the IP network itself in a geographic area would drain the capital funding needed to deploy or upgrade that and other similar next-generation networks needed to provide VoIP and other IP-based services.

Forcing ILECs to modify their networks to accept traffic in IP would entail enormous investment and technical resources. Inevitably, it would divert scarce investment capital that ILECs otherwise would utilize to deploy and upgrade broadband services. In an already difficult economic environment, ILECs face huge investment demands to meet the needs of consumers -- all in the face of continued declines in access line revenues. Congress directed the Commission to promote the deployment of broadband, and the National Broadband Plan has recognized the need for the Commission to promote investment that extends broadband availability to unserved and underserved areas, while keeping pace with the torrid growth in bandwidth demand. Moreover, ILECs like CenturyLink must invest heavily just to maintain today's network performance.[123] Increasing broadband speeds to existing customers and extending broadband network to unserved areas requires vast amounts of additional capital. Mandated IP-to-IP interconnection would necessarily undermine those key goals, as it would pointlessly redirect a vast amount of ILEC investment to interconnection facilities that provide no real benefit to consumers.

In fact, mandating IP-to-IP interconnection would unquestionably harm consumers. Forced to shift limited capital away from consumer-serving broadband facilities, such a ruling would necessarily retard ILEC investment in broadband deployment and upgrades, especially in

approach merely shifts the expense of the TDM conversion to the terminating carrier without any material improvement in quality or efficiency.

[123] Bandwidth demand industry-wide has been growing at 30% or more per year. That requires providers to invest aggressively in network upgrades even if they do not add any new customers, upgrade speeds for any subscribers, or extend new network to any unserved communities.

lower-density areas with the greatest need but the weakest business case. It would have a real and detrimental impact on consumers by retarding the availability and diminishing the quality of broadband services across the nation. Forcing IP-to-IP interconnection, meanwhile, provides no meaningful offsetting benefit to consumers.

D. Special Call Signaling Rules Regarding VoIP-PSTN Traffic, Including One-Way VoIP, Are Not Warranted

The Commission should not create special call signaling rules for one-way VoIP service.[124] In these as in other aspects of the Commission's new rules, it should strive for a level playing field. One-way VoIP providers have the ability to gain, albeit indirectly, access to numbers for traffic they direct to or receive from the PSTN. They should be obligated to populate call data in the signaling stream for such calls just as other carriers must. In the event they are not able to do so in specific instances, they can avail themselves of the Commission's waiver rules.

[124] *FNPRM* ¶ 1399.

III. CONCLUSION

For the reasons stated above, CenturyLink respectfully requests that the Commission take the action described herein.

Respectfully submitted,

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