Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Petition for Declaratory Ruling That tw telecom inc. Has The Right To Direct IP-to-IP Interconnection Pursuant To Section 251(c)(2) Of The Communications Act, As Amended, For The Transmission And Routing Of tw telecom's Facilities-Based VoIP Services And IP-In-The-Middle Voice Services	)	WC Docket No. 11-119

REPLY COMMENTS OF CENTURYLINK

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I. INTRODUCTION AND SUMMARY

tw telecom inc.'s (TWTC) petition seeks an extraordinary, even radical, declaratory ruling. TWTC wants the Commission to decree that it is entitled to direct IP-to-IP interconnection with ILECs pursuant to section 251(c)(2) of the Act, so that it can deliver IP traffic without incurring the costs of converting its traffic to the TDM format that remains the standard for ILEC networks throughout the United States.[1] The ruling sought by TWTC would be unlawful and unwarranted, and CenturyLink joins those parties that oppose TWTC's petition.

The petition must be denied for three reasons. First, as other parties emphasize, TWTC seeks access, contrary to the requirements of section 251(c)(2), to a "yet unbuilt, superior" network. The migration of ILEC networks from TDM to IP is still generally in the planning stages, and IP-to-TDM conversions remain necessary to terminate calls to the PSTN, as they will

[1] PETITION FOR DECLARATORY RULING OF TW TELECOM INC., In the Matter of Petition for Declaratory Ruling That tw telecom inc. Has The Right To Direct IP-to-IP Interconnection Pursuant To Section 251(c)(2) Of The Communications Act, As Amended, For The Transmission And Routing Of tw telecom's Facilities-Based VoIP Services And IP-In-The-Middle Voice Services, WC Docket No. 11-119, dated June 30, 2011 (TWTC petition); Public Notice, DA 11-1198 (July 15, 2011).

continue to be for some time. In the meantime, the petition would unreasonably and unlawfully transfer the cost of IP-to-TDM conversion from carriers like TWTC to their ILEC competitors.

Second, shifting these CLEC costs to ILECs is altogether unwarranted and would be badly misguided policy even if it were lawful. Granting the petition would not hasten the migration to next generation networks. If anything, it would delay that transition, by diverting precious capital resources that could otherwise be used for broadband deployment and upgrades of ILEC networks. Moreover, there are no "incumbents" in the provision of IP-based services. Given that fact, the Commission should allow the market and standard-setting organizations to define the details of IP-to-IP interconnection rather than dictating technology even in the absence of a unified standard.

Third, the petition is necessarily based on the assumption that VoIP services are telecommunications services. Many parties note, however, that the Commission has never classified VoIP as a telecommunications service and a local exchange and/or exchange access service. The petition is not the proper vehicle for the Commission to address anything as fundamental as the classification of VoIP services, and any declaratory ruling that requires so major a step cannot properly be granted. Although cable providers assert that they are entitled to IP-to-IP interconnection under section 251(c)(2) even if VoIP is an information service, given the plain language of the statute, the Commission could not lawfully grant that request.

TWTC and its handful of supporters do not need this regulatory favor, in any event. TWTC and other CLECs may continue to provide VoIP services in the way that they are very successfully doing today.

II. SECTION 251(c)(2) DOES NOT GRANT CLECS ACCESS TO THE YET-UNBUILT, SUPERIOR NETWORK THAT TWTC IS SEEKING

TWTC asks the Commission to require ILECs to deploy new network facilities and functionalities that generally do not exist in their networks today.[2] As the Eighth Circuit found in 1997, the federal statute "does not require incumbent LECs to provide [their] competitors with superior quality interconnection."[3] Section 251(c)(2) requires access "only to an incumbent LEC's *existing* network – not to a yet unbuilt superior one."[4]

TWTC's request is aimed at forcing ILECs to provide a different superior network – one capable of accepting traffic for termination in IP format.[5] Nationwide, TDM overwhelmingly remains the standard for operation of the PSTN and, correspondingly, for the exchange of traffic between carriers. ILECs would need to deploy new network architecture and extensive new equipment to exchange and transport IP traffic and convert it to TDM for switching and termination on the existing PSTN, and without regard to the ILECs' own network development plans.[6]

Like other ILECs, CenturyLink is working toward a gradual, long-term evolution of its network, including eventually migrating to IP switches in its local ILEC network. However, such a migration necessarily would extend over many years. Today, CenturyLink's ILEC affiliates generally are not offering IP-based services and have not deployed the media gateways

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[2] AT&T at 9-10; US Telecom at 3; Verizon at 9.

[3] *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 812 (8th Cir. 1997), *subsequent history omitted.*

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

[5] In effect, the petition would force ILECs to deploy new gateway facilities to accept traffic in TDM or IP format, whichever is an interconnecting carrier's preference, at all interconnection points throughout each ILEC's local network, regardless of the technology the ILEC uses itself.

[6] *See* YMax at 5-6 (urging the Commission to require replacement of the PSTN with IP technology).

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 many, many millions of dollars of network investment.

Such investment for the convenience of CLECs is not required by the statute, nor has it been required in the Commission's rules. As the Commission has noted, "there historically have not been Commission rules governing IP interconnection for the exchange of Internet traffic."[7] The Commission's interconnection rules, implementing section 251(c), dealt only with TDM interconnection and the "technically feasible" locations where such interconnection could be provided.[8] TDM remains the dominant standard within ILEC networks.

CLECs are therefore wrong when they suggest that CenturyLink, as an ILEC, generally uses IP technologies within its network to switch and/or transmit voice traffic.[9] As its name suggests, CenturyLink's "IP Voice 1+ Termination" offering is a long distance termination product offered by CenturyLink's long distance affiliate, rather than a local service carried on an

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[7] *In the Matter of Connect America Fund*, WC Docket No. 10-90, *et al.*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554, 4773 ¶ 679 (2011).

[8] 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 and citation omitted; TWTC petition at 20).

[9] *See* Megapath, *et al.* at 8 n.14 (referring to CenturyLink's IP Voice 1+ Termination product); YMax at 3-4 n.5.

ILEC network.[10] Indeed, nearly all of CenturyLink's IP-based voice products are IXC services carried on CenturyLink's national long distance network.[11]

Like the ILEC industry overall, CenturyLink's local switching infrastructure generally does not support IP-based traffic at this time. Calls that originate or terminate on the PSTN are carried in TDM format, which will continue to be the case until CenturyLink replaces its circuit switches with IP switches as part of its natural network progression.

III. MANDATING IP-TO-IP INTERCONNECTION IS UNJUSTIFIED AND UNWARRANTED

TWTC and its occasional supporters try to create a false sense of urgency for regulatory-mandated IP interconnection, suggesting that its absence is somehow hindering the deployment of IP-based services. The migration of ILEC networks from TDM- to IP-based technologies, however, is already progressing, even though it remains in relatively early stages. ILECs, including CenturyLink, have incentives to transition their networks to IP reasonably expeditiously to the extent that IP technology can provide efficiencies over existing technology as traffic increasingly shifts to broadband and data.[12]

A transition to IP, however, cannot be done overnight. 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. Although TWTC pretends otherwise,

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[10] *See* http://www.centurylink.com/wholesale/pcat/natipvoiceterm.html. This service permits a customer to hand off long distance traffic in IP format (SIP protocol) to be carried across CenturyLink's long distance network and ultimately converted to TDM for termination on the public switched telephone network, subject to applicable switched access charges.

[11] CenturyLink's long distance affiliate also offers limited IP-to-IP interconnection through commercially negotiated peering arrangements.

[12] *See* Alcatel at 3 ("The shift of communications networks to IP-based technologies is undeniable.").

those standards are far from established. Industry standard-setting activities are still underway,[13] a fact that underscores the grossly premature nature of TWTC's petition. Even if the Commission had authority to compel investment in a "yet unbuilt, superior" network, the absence of uniform, broadly established industry standards for IP traffic is reason enough for the Commission to decline to dictate industry technology.

In the meantime, TWTC and other carriers can continue to hand off VoIP traffic the way that they do today – by converting the traffic to TDM themselves or through a third party, or by using existing commercial peering arrangements, particularly for traffic bound for IP termination. As long as VoIP calls are generally terminated to the PSTN, as is certainly the case today,[14] an IP-to-TDM conversion will remain necessary.[15] Requiring the ILEC, rather than TWTC, to do this conversion will provide no benefits in quality, reliability or homeland security, as TWTC and others suggest.[16] Rather, it will merely shift the cost of these conversions from TWTC, the cost causer, to the ILEC and its customers – while undermining important congressional and Commission goals.

Forcing ILECs to modify their networks to accept traffic in IP – requiring them to install IP-to-TDM facilities throughout their networks – would entail enormous investment and technical resources. Inevitably, it would necessarily 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 lines and revenues. Congress directed the

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[13] Verizon at 5.

[14] US Telecom at 4; AT&T at 2; Verizon at 3-4.

[15] TDM interfaces and IP-to-TDM conversion therefore are not "obsolete" or "unnecessary," as some parties suggest. YMax at 4; CompTel at 3.

[16] TWTC petition at 7; YMax at 5.

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. TWTC's petition would necessarily undermine those key goals.

Each year, CenturyLink designates a fixed amount of its free cash flow for capital expenditures on its network. That fixed budget includes the company's many expensive initiatives to extend the reach and quality of its broadband services. That same limited network capital budget necessarily would be tapped to fulfill a Commission order to provide IP-to-IP interconnection under section 251(c)(2). ILECs like CenturyLink must invest heavily just to maintain today's network performance.[17] Increasing broadband speeds to existing customers and extending broadband network to unserved areas requires vast amounts of additional capital. Granting TWTC's petition would pointlessly redirect a vast amount of ILEC investment to interconnection facilities that provide no real benefits to consumers.

In fact, granting the petition would unquestionably harm consumers. Forced to shift limited capital away from consumer-serving broadband facilities, the petition would necessarily retard ILEC investment in broadband deployment and upgrades, especially in 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. There is no reason to accept TWTC's suggestions that it would significantly improve service reliability or quality for consumers.

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[17] 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.

Beyond being bad policy and harmful to consumers, mandating IP-to-IP interconnection by regulatory fiat also would be unjustifiable given ILECs' clear lack of market power in the provision of IP services. Again, even larger ILECs like CenturyLink are only beginning to deploy IP-based services in their networks. Today, CLECs dominate the market for IP services. In contrast, many CLECs rely heavily on IP technologies in their networks.[18] Additionally cable companies and other competitors to ILECs have successfully deployed VoIP services on a widespread basis – while winning customers away from ILECs – without any regulatory mandate for IP-to-IP interconnection. Today, there are more than 29 million interconnected VoIP connections – 19% of all wireline telephone connections and 28% of all residential wireline telephone connections – despite the lack of any Commission-mandated IP-to-IP interconnection under section 251(c)(2).[19] With respect to IP-based services, there are no incumbents; all providers are new entrants.[20]

Since the creation of the Internet, the Commission has always permitted IP-based services to be exchanged through commercial arrangements, rather than government-dictated rates, terms and conditions. This regulatory restraint has allowed the technology to develop and the Internet to grow and evolve efficiently and realistically, with IP interconnection rates, terms and conditions tailored to the nature of the interconnecting providers and the services they provide. TWTC's petition offers no reason to depart from this successful approach with interconnection arrangements for IP-based voice traffic.

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[18] *See* TWTC petition at 6-7; Megapath, *et al.* at 5.

[19] Local Telephone Competition: Status as of June 30, 2010, Industry Analysis and Technology Division, Wireline Competition Bureau at 4-5 (rel. Mar. 2011), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-305297A1.pdf.

[20] Verizon at 11.

The development of the Internet and IP-based services are success stories in part because the Commission declined to dictate technology and deliberately applied only a light regulatory touch. The Commission should allow the marketplace to govern the ongoing rollout of IP-based technologies, including those necessary for IP-to-IP interconnection, based on technical standards and guidelines established by standards-setting bodies such as ATIS. These commercial arrangements are the most efficient means to work through the many operational and financial details associated with exchanging IP-based traffic. In contrast, the short-sighted, reactionary regulation sought by TWTC and its supporters could well stifle innovation and the natural evolution of existing infrastructure to IP-based next generation networks.

Aside from the Internet, the Commission has chosen to defer or even eliminate regulation in other contexts, also with great success. For example, in 1980, the Commission determined that customer premises equipment should not be regulated under Title II in order to further competition and innovation.[21] Twenty years later, the Commission found that its goal in *Computer II* to increase consumer choice for innovative CPE and open equipment markets to full and fair competition had unquestionably been achieved, with major benefits for consumers and the competitive marketplace.[22]

Here, as well, the Commission should allow the technology to advance, the marketplace to develop, and the standards-setting bodies to do their work to further an efficient transition to IP networks. Even apart from its legal shortcomings, forcing the diversion of industry capital

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[21] *In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C.2d 384, 439-40 ¶¶ 141-42 (1980).

[22] *In the Matter of Policy and Rules Concerning the Interstate, Interexchange Marketplace; Implementation of Section 254(g) of the Communications Act of 1934, as amended; 1998 Biennial Regulatory Review -- Review of Customer Premises Equipment and Enhanced Services Unbundling Rules in the Interexchange, Exchange Access and Local Exchange Markets*, 16 FCC Rcd 7418, 7429-30 ¶ 21 (2001).

from broadband deployment to IP-to-IP interconnection is unjustified and unwarranted, and would be badly misguided policy.

IV. TWTC'S PETITION CANNOT BE GRANTED, BECAUSE IT REQUIRES CLASSIFICATION OF VOIP AS A TELECOMMUNICATIONS SERVICE

As TWTC readily concedes, the Commission cannot grant TWTC's petition without first classifying VoIP as a telecommunications service and a local exchange and/or exchange access service.[23] The Commission has not done so,[24] and a proceeding on a petition for declaratory ruling is not a proper vehicle for making such a determination. This fact provides another separate ground for rejecting TWTC's petition.

Other parties agree that the petition is procedurally defective.[25] Cablevision and NCTA, however, seek to bypass the problem by asserting that they are entitled to IP-to-IP interconnection under the statute even if VoIP is an information service.[26] This position ignores the plain language of section 251(c)(2) and has no support in the statute or the Commission's rules. By the statute's very terms, section 251 interconnection is available only to providers of telecommunications services.[27]

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[23] TWTC petition at 3-4. *Accord* CompTel at 6-9; Megapath, *et al.* at 3-4.

[24] *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*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554, 4749-50 ¶ 618 (2011).

[25] *See, e.g.*, Alcatel-Lucent at 2-5; US Telecom at 2-3.

[26] Cablevision at 7-10; NCTA at 4-5.

[27] *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.").

The Commission need not address the issue in this proceeding, in any event. As many parties point out, TWTC is able to obtain TDM interconnection for its VoIP traffic today, and carriers using IP technology are having no real difficulty providing services. Though TWTC might prefer that VoIP be deemed a telecommunications service and certainly would prefer shifting costs of the necessary IP-to-TDM conversion to ILECs, the petition provides no sustainable basis for doing so.

V. CONCLUSION

For the reasons set forth above, the Commission should deny TWTC's petition.

Respectfully submitted,

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August 30, 2011

CERTIFICATE OF SERVICE

I, Richard Grozier, do hereby certify that I have caused the foregoing **REPLY COMMENTS OF CENTURYLINK** to be: 1) filed via ECFS with the Office of the Secretary of the FCC in WC Docket No. 11-119; 2) served via e-mail on the Telecommunications Access Policy Division, Wireline Competition Bureau at CPDcopies@fcc.gov; and 3) served via e-mail on the FCC's duplicating contractor, Best Copy & Printing, Inc. at fcc@bcpiweb.com.

/s/ Richard Grozier

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