

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Technology Transitions Policy Task Force)	GN Docket No. 13-5
)	
AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition)	GN Docket No. 12-353
)	
Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution)	
)	
)	
Petitions for Rulemaking and Clarification Regarding the Commission's Rules Applicable to Retirement of Copper Loops and Copper Subloops)	RM-11358
)	

**REPLY COMMENTS OF XO COMMUNICATIONS, LLC
ON TECHNOLOGY TRANSITIONS POLICY TASK FORCE
PUBLIC NOTICE SEEKING COMMENT ON POTENTIAL TRIALS**

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XO Communications, LLC (“XO”), by its attorneys, hereby files its reply to the initial comments filed in response to the May 10, 2013, Public Notice released in GN Docket No. 13-5.¹

¹ See Public Notice, Technology Transitions Policy Task Force Public Notice Seeking Comment on Potential Trials, DA 13-1016, GN Docket No. 13-5 (rel. May 10, 2013) (“Task Force Notice”). XO is also filing these reply comments in the two proceedings where the Commission is currently considering whether a new docket should be opened to evaluate the evolution of the public communications network (“PCN”) from the predominant use of TDM technologies to the use of Internet Protocol (“IP”) technologies (GN Docket No. 12-353) and whether to modernize the copper replacement rules (RM-11358).

I. INTRODUCTION AND SUMMARY

The initial comments responding to the Task Force Notice contain scant, if any, support for the trials regarding managed IP interconnection, all-IP networks, and copper-to-fiber transition as considered by the Technology Transitions Policy Task Force (“Task Force”) in the Task Force Notice. Moreover, the all-IP wire center deregulation trials proposed by AT&T continue to garner no meaningful support, similar to the initial comments sought by the Commission on the AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition (“AT&T Petition”) in Docket No. 12-353. There is no benefit to be gained, other than by incumbent local exchange carriers (“ILECs”), from conducting these deregulation trials, which are strongly opposed by a wide range of commenters and supported only by two ILECs, AT&T and CenturyLink. Rather, the Commission may justifiably rely on the real-world experience of industry members associated with the ongoing TDM-IP evolution of networks to take regulatory action to ensure interconnection between managed IP networks is facilitated and the interests of end users are protected. In short, the Commission and Task Force should decline to engage in any of the foregoing types of trials.²

There are important, pro-competitive steps the Commission can and should take now in existing dockets to facilitate the ongoing transition to an all-IP public communication network (“PCN”). Competitive providers have been transitioning for many years to IP technologies within their operations, but they have been handicapped by the failure of the major

² XO recognized in its initial comments on the Task Force Notice that, in limited circumstances, targeted testing with appropriate constraints and oversight by a neutral third party may be appropriate to evaluate technical feasibility or implementation of a regulatory tool after Commission analysis of existing real-world data and considering input from all interested parties. There is no need, however, to consider any trials or testing to assess market feasibility or product acceptance by consumers. *See* XO Comments at 7 n. 10. Unless otherwise noted, reference to a party’s “Comments” is a reference to initial comments filed in response to the Task Force Notice on July 8, 2013.

ILECs to undertake similar investments and by the Commission's refusal to resolve key regulatory issues, including affirming that the interconnection provisions of the Communications Act of 1934, as amended (the "Act") apply to the exchange of managed VoIP traffic. Rather than engage in the proposed trials, which would contribute nothing material to the real-world experience already gained by industry participants, the Commission should exploit the fact that it is well-positioned to develop a regulatory framework promptly that preserves competition and maximizes the benefit of the new technologies for end user customers. The Commission should swiftly address these matters in its pending proceedings, by clarifying the obligation of ILECs to interconnect with requesting carriers under Sections 251 and 252 of the Act, regardless of the technical format requested by the carriers, and to provide access to end user locations controlled by ILECs possessing market power, regardless of the technology involved, at reasonable and non-discriminatory rates, terms, and conditions. This is essential where and for as long as ILECs still possess market power over last-mile facilities, such as at most business and enterprise locations. Thereafter, the Commission should continue to monitor marketplace developments to determine what, if any, rule adjustments are necessary, appropriate, and in the public interest.

II. THE EVOLUTION TO AN ALL-IP PCN HAS BEEN ADVANCING, WHICH HAS PROVIDED THE INDUSTRY WITH EXPERIENCE THE COMMISSION SHOULD DRAW UPON

The evolution to IP-based technologies and services among communications providers has been underway for years, as the initial comments make plain. Historically, competitive providers have moved in advance of incumbent carriers, as XO set forth in its comments.³ Cbeyond *et al.* explain that "Competitors have led the way in deploying Ethernet services to American businesses, and, as AT&T has stated, incumbent LECs have (belatedly)

³ XO Comments at 2.

invested in the provision of packet-based Ethernet services in response to competitive LECs' deployment of those services.”⁴ Similarly, Sprint observes that “[m]uch of the telecommunications industry already exchanges voice traffic in IP format,”⁵ and that “[m]any other smaller carriers are ahead of AT&T and Verizon in their transitions to IP.”⁶ Without commenting on who has been in the vanguard, the California Public Utilities Commission (“CPUC”) notes that a “TDM-IP transition has been happening for the last 10-15 years.”⁷

The large ILECs affirm that the transition to IP technologies from the traditional Public Switched Telephone Network (“PSTN”) is now beyond the early stages. Verizon observes that the Commission, in considering trials and its regulatory framework, “should take into account that, as a result of evolving consumer demand and technology, the transition away from Plain Old Telephone Service delivered over a wireline Public Switched Telephone Network has been underway for some time. And this transition is just one in a long line of technological transitions that have occurred over the years and that affect how consumers communicate.”⁸ AT&T explains that “the transition from TDM-to-IP based services is irreversibly under way and

⁴ Cbeyond, Earthlink, Integra, Level 3, and TW Telecom Comments at 8 (“Cbeyond *et al.* Comments”).

⁵ Sprint Comments at 5. Sprint notes that AT&T “exchanges voice traffic in IP format among its affiliates,” and that Verizon exchanges voice traffic in IP format with its affiliates” and non-specifically with “others.”

⁶ *Id.*

⁷ California Public Utilities Commission at 2 (“CPUC Comments”). *See also* TEXALTEL Comments at 2 (the “[t]ransition to VOIP began over twenty years ago with ATM technologies and has progressed more recently with various Internet Protocols and Voice over Internet Protocols. Change will continue as IP and VOIP standards, hardware, and applications progress. Suggesting that VOIP is some revolutionary technology that ‘changes everything’, and to imply that it is the only major change in the recent past or near term future is extremely short sighted.”)

⁸ Verizon Comments at 2.

proceeding apace.”⁹ CenturyLink, although its local exchange operations “have not yet deployed infrastructure to perform” IP-to-IP interconnection,¹⁰ acknowledges that “[t]remendous progress has already occurred in the IP transition and there is every reason to expect it will continue.”¹¹

This ongoing evolution has resulted in a wealth of real-world network, operational, customer, and intercarrier experience. For example, as XO and other commenters make clear, there are no major technical issues related to interconnection of managed IP networks and those that arise are regularly worked out among the affected carriers.¹² In addition, commenters explain that the industry, through several standards setting bodies, continues to examine the technical side of IP-based interconnection.¹³ Consequently, regarding the technical issues surrounding the exchange of IP communications, there is little the Commission or the Task Force need do at this time apart from monitor developments.

At the same time, the evidence already put before the Commission demonstrates the transition to an all-IP PCN is being frustrated by the unwillingness of the major ILECs to negotiate managed IP interconnection agreements. For example, COMPTTEL notes that “there is wide-spread recognition of the inability to obtain interconnection agreements with the largest

⁹ AT&T Comments at 2.

¹⁰ CenturyLink Comments at n. 2.

¹¹ *Id.* at 9.

¹² *See* XO Comments at 8-9; Sprint Comments at 9 (“Technical issues that will accompany the TDM-to-IP migration will best be worked out cooperatively among the carriers . . .”); Peerless Networks Comments at 6 (“many competitive LECs and unregulated entities have already worked through the technical issues raised in the Public Notice and currently interconnect in IP format”); COMPTTEL Comments at 2,17 (delays in the transition to IP interconnection are not attributable to technical issues but to refusal of incumbent carriers to interconnect as required by the Act).

¹³ *See, e.g.*, XO Comments at 9-10; AT&T Comments at 21 (“stakeholders from across the industry, including AT&T, already have begun the important work of developing those necessary [technical] standards” associated with VoIP interconnection).

ILECs and the need for the Commission to take action.”¹⁴ Cablevision recounts that it has been “successful in negotiating IP interconnection agreements with competitive providers and interexchange carriers,” but experienced an “inability to obtain IP interconnection from [ILECs].”¹⁵ Cbeyond, *et al.*¹⁶ and Sprint¹⁷ also relate their failure in reaching interconnection agreements to exchange IP-based traffic with ILECs. This accumulated experience is more than enough basis to justify the Commission affirming in its pending proceedings that the ILECs have an enforceable obligation pursuant to Section 251 and 252 to provide interconnection for managed VoIP traffic.

III. THERE IS LITTLE SUPPORT FOR TRIALS AS DESCRIBED IN THE TASK FORCE NOTICE REGARDING IP INTERCONNECTION, GEOGRAPHIC ALL-IP NETWORKS, OR COPPER-TO-FIBER TRANSITION

Tellingly, the comments as a whole show little, if any, support for managed IP interconnection trials, copper-to-fiber transitions trials, or the all-IP wire center-based deregulation trials proposed by AT&T. Rather the comments, as a whole, acknowledge that the Commission can develop the appropriate regulatory framework and establish the appropriate level of obligations of incumbent carriers’ based on existing experience obtained during the technological transition thus far.

¹⁴ COMPTTEL Comments at 13. COMPTTEL elaborates specific difficulties that some carriers have had with Verizon and AT&T when seeking IP-based interconnection. *Id.* at 13-16.

¹⁵ Cablevision Comments at 2.

¹⁶ Cbeyond *et al.* Comments at 12 (“The available evidence demonstrates that the key obstacle to VoIP interconnection agreements is incumbent LECs’ unwillingness to cooperate in negotiating such agreements.”)

¹⁷ Sprint Comments at 3 (Sprint “is fully prepared to exchange voice traffic in IP format with the RBOCs if they were willing to interconnect on a just, reasonable, and nondiscriminatory basis,” but finds that “they balk at entering into IP voice interconnection agreements with unaffiliated carriers”).

A. Managed IP Interconnection Trials

Overwhelmingly and almost without exception, commenters see no need for managed IP interconnection trials. Verizon minces no words when it states “[t]here is no need for an IP interconnection trial, and such a trial would likely do more harm than good.”¹⁸ Likewise, Sprint, Cbeyond *et al.*, and COMPTTEL, among others, categorically are opposed to such trials because they are unnecessary.¹⁹ As Cbeyond *et al.* elaborate, “[t]he Commission does not need to conduct a trial or otherwise study the technical issues associated with VoIP interconnection [or to] clarify[] the statutory basis for incumbent LECs’ duty to provide VoIP interconnection.”²⁰ Even AT&T and CenturyLink do not support managed IP interconnection trials.²¹

Consequently, as detailed in the previous section, because many parties have developed expertise with managed IP interconnection, even though the ILECs continue to raise non-technological obstacles, the Commission should not divert any of its resources and attention to managed IP interconnection trials. Rather, as amplified in the final section of these reply

¹⁸ Verizon Comments at 2. Verizon adds that any trials that the Commission chooses to conduct should be “strictly voluntary.” *Id.* at 4, 5. Earlier, in its comments responding to the AT&T Petition, Verizon remained noticeably silent on the prospect of AT&T’s all-IP deregulatory trials. *See discussion in* Reply Comments of XO Communications, LLC, GN Docket No. 12-35, at 7-8 (filed Feb. 25, 2013) (“XO TDM-IP Reply Comments”)

¹⁹ Sprint Comments at 5; Cbeyond *et al.* Comments at 11-14, 24-25; COMPTTEL Comments at 4-5.

²⁰ Cbeyond *et al.* Comments at 14.

²¹ AT&T explains that VoIP Interconnection trials as set forth in the Task Force Notice are “unwarranted” and “would serve no useful purpose” because “the need for industry and technical standards . . . is well-recognized and is being addressed” by industry. AT&T Comments at 20-21. CenturyLink suggests that any IP interconnection trials should be provider-initiated and formulated. CenturyLink Comments at 17-18. Clearly, the particulars of such trials are to be left to those private parties wish to set-up and conduct and do not require the intervention of the Commission or the Task Force.

comments, the Commission should clarify that the ILECs are obligated to provide managed IP interconnection with requesting carriers under Sections 251 and 252 of the Act.

B. Geographic All-IP Networks Trials

Very few commenters openly support any sort of geographic all-IP trials.²²

Indeed, of the many providers that addressed whether there should be managed IP Interconnection or all-IP trials, only two, AT&T and CenturyLink, expressed any endorsement, and then only for deregulatory all-IP trials they claim are different than those described in the Task Force Notice. From XO's perspective, the geographic all-IP trials these two incumbents support are ill-defined in their comments except for one overriding element: they are to be conducted without any sort of regulatory backstop. Further, the purpose such trials purportedly would serve is not clear, apart from advantaging the ILECs by freeing them from statutory obligations during the transition to an all-IP network in selected geographic areas. Although AT&T and CenturyLink recognize that trials can impose costs and needlessly divert Commission attention from more vital tasks,²³ they seek mandatory all-IP trials without any regulatory backdrop²⁴ designed, effectively, to demonstrate that regulation is not necessary where providers

²² Several providers commented on certain aspects of managed IP interconnection and geographic all-IP trials should the Commission decide to have trials, but did not endorse the notion of such trials affirmatively.

²³ AT&T Comments at 16; CenturyLink Comments at 4.

²⁴ CenturyLink claims that if there is a regulatory backdrop based on the ILECs' interconnection obligations under Section 251 that CLECs would have incentives to request an extremely large number or, conversely, small number of interconnection points, both of which CenturyLink argues would be problematic. CenturyLink contends that application of the applicable Section 251/252 framework "would destroy CLECs' incentives to work toward efficient interconnection solutions" with ILECs. CenturyLink Comments at 20. CenturyLink suggests, without offering any evidence, that, under such a framework, connecting carriers may connect at too many locations or, in the other extreme, seek a single national interconnection point and attempt to impose disproportionate transport costs on the ILEC. This concern is ill-founded. XO submits that carriers that have each implemented IP network solutions will have similar incentives to achieve mutually efficient arrangements with a selection of points of interconnection,

have converted to all-IP network operations, essentially along the lines suggested by AT&T in its Petition leading to Docket No 12-353.²⁵ Indeed, AT&T's motives for removing its statutory obligations as an ILEC without using the existing regulatory procedures of forbearance become clear when it maintains in its initial comments that there should be no reset button. In other words, the "regulation-free" market environment created by conducting all-IP trials in a given geographic area would not be reversed once the trial is over.²⁶ In sum, AT&T and CenturyLink are seeking regulatory forbearance without having to provide evidence demonstrating they meet the requirements of Section 10 of the Act.²⁷

XO has repeatedly opposed the all-IP trials that AT&T advocated, both in its comments on the AT&T Petition and in its initial comments in this proceeding.²⁸ As XO

both number and location, that strikes a reasonable balance between the two carriers' respective burdens and accounts for the degree of market power that the ILEC retains. As XO has longed stated as part of its support for industry-wide managed IP interconnection, only a small number of interconnection points will be necessary between managed IP networks, certainly not the scores or hundreds that CenturyLink fears on one end of the spectrum or a single point it dreads at the other end. *See, e.g.,* XO Comments, WC Docket No. 10-90, *et al.*, at 11 (filed April 18, 2011). A proper regulatory framework will guide carriers toward such mutually efficient outcomes while holding in check the ILECs' market power. In any event, the solution is to develop that regulatory framework in existing FCC proceedings, not in response to the Task Force Notice. The Commission should not conduct a trial outside the rubric of Sections 251 and 252 where ILECs would have the opportunity to assert that market power without regulatory oversight.

²⁵ CenturyLink's rationale for supporting trials of any sort is suspect because it clearly intimated that, in many locations, it has not, and may not indefinitely, transition to IP network operations in its local networks. Century opposes trials where an ILEC has not yet deployed IP technology. *See* CenturyLink Comments at 4.

²⁶ AT&T Comments at 7, 18.

²⁷ 47 U.S.C. § 10. XO addressed at length that the all-IP trials proposed by AT&T were a backdoor way to obtain forbearance without having to make the statutory showings in its comments on the AT&T Petition. *See* Comments of XO Communications, LLC, GN Docket No. 12-353, at 9-11, 13-14 (filed Jan. 28, 2013) ("XO TDM-IP Comments").

²⁸ In continued opposition, XO incorporates those objections herein by reference. *See* XO Comments at 14-16 (discussing and summarizing the XO criticisms the all-IP trials proposed in AT&T's Petition set forth in the XO TDM-IP Comments and XO TDM-IP Reply Comments, *supra*).

explained in its XO TDM-IP Reply Comments, AT&T's proposals garnered little, if any, support among commenters.²⁹ Numerous other parties in their initial comments here also oppose the all-IP deregulation trials that AT&T touts.³⁰ AT&T's initial comments do not elaborate materially on what those trials would entail or provide new justifications for the trials, so no further consideration is necessary for the FCC to reject AT&T's proposals. Nine months after AT&T first filed its proposal, the carrier is still "developing a comprehensive plan" for the all-IP trials it supports.³¹ AT&T's failure to birth a clearer picture of the geographic all-IP trials it proposes after such a lengthy gestation period leaves little doubt the Commission should not give the concept any more of its attention.³²

²⁹ See discussion in XO TDM-IP Reply Comments at 7-8 and comments identified in *id.*, n. 18 ("carriers and carrier groups alike generally opposed the proposal vigorously on a variety of grounds and offered preliminary advice on the numerous flaws that would have to be remedied before the Commission should even consider anything resembling trial runs").

³⁰ See, e.g., Cbeyond *at el.* Comments at 5; BullsEye and Access Point Comments at 4; Matrix Telecom Comments at 2-3. To the extent that the Commission were to determine, which would be unwise in XO's view, to conduct trials of managed IP interconnection arrangements or all-IP wire centers, any agreements that ILECs enter into during the trials should be binding even after the trials are over and available for opt in by other competitors in any areas where the ILECs have transitioned or transition during the term of the agreement to all-IP platforms. See Cablevision Comments at 4. Otherwise, as the CPUC advocates, trials should be fully reversible. See CPUC Comments at 8.

³¹ AT&T Comments at 15. AT&T's inability to coherently set forth the plan on which it believes trials should take place is highlighted its continued endorsement of wire-center based trials while recognizing that managed IP interconnection arrangements will encompass greater geographic area than a single wire center as points of interconnection occur at far fewer locations than in a traditional circuit-switched framework. Compare *id.* at 12 ("the proper geographic scope of such trials is an ILEC wire center") with *id.* at 22 ("while the specific arrangements between individual IP networks may vary, it will involve the exchange of traffic over broader regional, national, or global areas and at perhaps only a handful geographic locations across the country (or the globe)"). See also note 24, *supra*.

³² Rather, as discussed in Section IV below, the Commission should act in its existing proceedings to establish a framework, subject to modification over time, to guide industry participants through the transition while maintaining the pro-competitive tools – ILEC interconnection duties and end user-connection access obligations – that have been and continue to be essential, at least for the foreseeable future, to a pro-competitive industry environment.

As noted above, the evolution to all-IP network operations is well underway, and providers already have considerable experience with both the technical and intercarrier aspects of the transition. The all-IP trials discussed in the Task Force Notice and the initial comments which engage the issue of such trials are difficult to distinguish from the simple act of the Commission monitoring marketplace developments already occurring without any need for the Commission, Task Force, or others to establish an artificial “trial environment.” As Sprint observes, “[t]he proposed trials thus are duplicative of the knowledge and experience the industry has already compiled and will only result in costly delays in deploying all-IP networks.”³³ The CPUC expands on the point that existing experience and data provide a ready-made repository of information for the Commission to tap into to fashion an appropriate regulatory framework:

Indeed, the Commission could usefully survey those customers and carriers who have already switched their service to VoIP/IP, and analyze the current status of the transition to IP-enabled services. . . . If the migration is in various stages of implementation, it is prudent to examine these developmental stages to determine where the migration has been seamless, where it has been eventful, where standards have already been designed and applied, and where standards or rules are needed to protect consumers, assure safety and reliability, and preserve competition.³⁴

Rather than give any further consideration to such trials, the Commission should act on the existing evidence in the record based on industry experience in the real world to fashion managed IP interconnection rules applicable to ILECs when they receive requests for such interconnection from requesting providers and requirements that ILECs make end user access connections available on an unbundled basis.

³³ Sprint Comments at 5.

³⁴ CPUC Comments at 2-3.

C. Copper-to-Fiber Transition Trials

Finally, apart from the notion of managed IP interconnection or geographic all-IP trials, the record in the initial comments is clear that trials are not needed concerning the copper-to-fiber transition. Perhaps the CPUC makes this point most succinctly and directly:

California opposes such a trial at this time. Many CLECS are dependent on the ILECs' copper to deliver their services. The policy issues regarding CLEC access to ILEC fiber facilities should be addressed before any such trial is undertaken. The Commission need not wait for trials, however, to study areas where the copper-to-fiber transition has already taken place, and how this already-completed transition has affected CLEC access to customers, customer access to CLECs, and competition generally.³⁵

In RM-11358, a record has been assembled substantiating the CPUC's observation regarding the continuing important role that copper plays in supporting competition and customer access to reasonably priced advanced voice and broadband services through such means as Ethernet over copper. A trial is unnecessary to confirm that the Commission needs to revisit its copper retirement rules and to ensure that ILECs are not unjustly advantaged as they transition to fiber-based services while continuing to enjoy their market power resulting from their unparalleled access to end user locations.³⁶

³⁵ *Id.* at 10.

³⁶ *See* XO and Broadview Networks Comments, RM 11358 (Mar. 5, 2013) ("XO/Broadview 11358 Comments"); XO and Broadview Networks Reply Comments, RM 11358 (Mar. 20, 2013) ("XO/Broadview 11358 Reply Comments"). *See also* Cbeyond *et al.* Comments at 7-8 (unbundling and special access rules should apply to ILECs' packet-switched networks and fiber facilities because they use "the same bottleneck physical connections that give them market power in the provision of TDM-based services.")

IV. THE COMMISSION SHOULD CLARIFY THAT SECTIONS 251 AND 252 APPLY TO MANAGED IP INTERCONNECTION

Rather than engage in any trials at this time, the Commission should take action in its existing proceedings, in which extensive records have been compiled, to clarify that ILECs are obligated under Sections 251 and 252 of the Act to interconnect with other carriers on an IP basis to exchange managed IP voice traffic. Through these proceedings, the Commission should also ensure as network operations move more pervasively to IP platforms that competitors continue to have reasonably-priced access to the last-mile facilities serving end user locations when they are controlled by the ILECs, which is particularly the case in commercial buildings. The Commission has the authority and statutory duty to address these matters.

The biggest threat to competition as networks transition from TDM to IP technologies is the pervasive control that ILECs enjoy over most end user connections. Indeed, it was because of this control that Congress created the category of “ILEC” in the Telecommunications Act of 1996 and imposed technology neutral obligations on ILECs for interconnection and for access to end user connections (i.e., unbundled loops) in Sections 251 and 252 of the Communications Act.³⁷ These sections simply do not make reference to any technology or network type, except to the extent that the network of an ILEC is considered a network type. Thus, the technology used by the ILEC is not the relevant factor as to whether these obligations continue to apply; it is the language of the statute and the ILECs’ power in the telecommunications market that matters. Accordingly, when Qwest and Verizon sought forbearance from their Section 251 unbundling obligations, the Commission, in denying

³⁷ See e.g., COMPTEL at 2: The delay in the U.S. is not a result of technical issues. Rather, it is the unwillingness of the largest incumbents, the RBOCs, to enter into agreements for managed IP interconnection in accordance with the mandates of the Act, despite the Commission’s stated expectation in 2011 that carriers would negotiate in good faith for managed IP interconnection.

forbearance in the business markets, placed great weight on those entities' control over end user locations.³⁸

As XO has explained in filings earlier this year in WC Docket No. 12-353, the ILECs' control over access to commercial buildings remains fundamentally unchanged, and the resulting market power remains unabated despite the change in technology by which ILECs serve their end user customers at those locations.³⁹ The transition from a TDM PSTN to an all-IP PCN is a technology transition, *not* a transition that somehow removes the market advantages that ILECs now enjoy as a result of their control of exclusive physical access to the majority of business end user locations. The ILECs will continue to possess and can be expected to exploit those market advantages even as the technology used to serve those end user locations changes.⁴⁰ Accordingly, the reasons for the regulatory framework applicable to the ILECs are still present, and maintaining the Section 251 and 252 obligations, as to interconnection and providing access to UNEs (or their equivalent), will promote the public interest and, ultimately, the welfare of the users of telecommunications. Numerous commenters, like XO, urge the Commission to "simply clarify that incumbent LECs must provide VoIP interconnection under Section 251(c)(2) of the

³⁸ See, e.g., *Petitions of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, Memorandum Opinion and Order, 25 FCC Rcd 8622 (2010) *aff'd sub nom Qwest Corporation v. FCC*, 689 F.3d 1214 (10th Cir. 2012); *Petitions of the Verizon Telephone Companies for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Boston, New York, Philadelphia, Pittsburgh, Providence and Virginia Beach Metropolitan Statistical Areas*, Memorandum Opinion and Order, 22 FCC Rcd 21293 (2007).

³⁹ See discussion of earlier XO filings in XO Comments at 17 n. 33.

⁴⁰ To contend that there will be a change in market power simply because there is a change in the technology would be comparable to suggesting that the change from horse and buggy to automobiles eliminated the need for roads. Roads remained essential despite the technology change in the same way that access to end users physically controlled by the ILECs, especially business customers, remains the same issue for competitive providers that they faced before the PSTN began to evolve into an all-IP PCN.

Communications Act”⁴¹ and provide access to end user locations, regardless of the technologies used by the incumbents.⁴²

Today, the comments of the major ILECs make clear they do not recognize the applicability of Sections 251 and 252 to them as they transition increasingly to managed IP platforms. It has been to these ILECs’ advantage to muddle that issue as best they can. Thus, for example, AT&T and CenturyLink contend that the transition to an all-IP PCN presents an entirely new paradigm where legacy regulatory concepts have no utility, all the while glossing over key elements – for example, access to business and enterprise end user locations – that continue to confer market power on the ILECs.⁴³ Any failure of the Commission to clarify how

⁴¹ Cbeyond Comments at 4. *See also, e.g.*, Cablevision Comments at 5-6 (Sections 251 and 252 apply to IP interconnection and “nothing in the statute permits carriers or the Commission to disregard that framework based solely on the technology used to interconnect”); CPUC Comments at 5-6 (discussing the need for the Commission to provide guidance regarding the applicability of Sections 251 and 252 to VoIP interconnection); Peerless Networks Comments at 3-5 (Sections 251 and 252 are “technologically agnostic,” and the Commission should declare that competing providers exchanging voice traffic with incumbents may do so pursuant to Sections 251(c) and (a).)

⁴² *See, e.g.*, COMPTTEL Comments at 1-2 (it is critical to “ensur[e] competitors have access to last mile facilities necessary to reach end-users regardless of the transmission facility (e.g., copper or fiber), or the electronics attached (e.g., packetized or TDM)”); Cbeyond *et al.* Comments at 9 (calling for “comprehensive final rules governing the rates, terms, and conditions on which incumbent LECs must offer wholesale access to TDM-based and packet-based last-mile facilities in the geographic and product markets in which they possess market power”); Granite Telecommunications Comments at 4 (“CLECs using wholesale inputs obtained from the ILEC should continue to have wholesale access to underlying facilities or their functional equivalent on rates, terms and conditions similar to current access, regardless of the transmission medium.”)

⁴³ *See* AT&T Comments at 15-16; CenturyLink Comments at 5, 19-20. AT&T also contends that “retail providers of VoIP and other IP-based services are properly classified as ‘information service’ providers,” by definition, and that IP-based VoIP service is by definition interstate, such that sections 251(c) and 252 do not apply to such service. *See* AT&T Comments at 24. As XO explained in its reply comments on the AT&T Petition in Docket No. 12-353, the exchange of managed IP traffic does *not*, in itself, bring an interconnection agreement out from under Sections 251(a) and 251(c):

XO and other carriers would seek to exchange over a managed IP interconnection arrangement both traffic that originates and/or terminates in IP format as well as traffic that carriers convert from

and the extent to which interconnection and access obligations apply to ILECs during and after the technology transition because of their persistent market power will cause irreparable harm to competition and, more importantly, to consumers who will lose the benefit of a competitive marketplace.

Without the foregoing obligations clarified on a technology-neutral basis,⁴⁴ experience shows that XO and other competitors will often, if not regularly, be relegated to inefficient workarounds (where they exist) or simply drastically increased costs as the evolution to an all-IP PCN proceeds. . Where ILECs refuse to enter into managed IP interconnection arrangements, competitive providers may have to assume the burden of converting traffic back to last century's TDM format. Obtaining managed IP interconnection arrangements with ILECs at reasonable rates, terms, and conditions would allow XO to remove many of its local interconnection trunks, resulting in significant cost savings (for both parties in an arrangement)

TDM into IP format for transport and then convert back to TDM for termination (known as IP-in-the-middle). There is no dispute that Sections 251(a) and (c) apply to voice services that originate in TDM and are converted to IP either for termination in IP or as IP-in-the-middle. Once a carrier qualifies for Section 251(a) or (c) interconnection for exchange of this traffic, it may use the interconnection arrangement to exchange managed IP voice traffic as well, regardless of the classification of that service. Thus, the Commission need not classify particular IP voice services or distinguish between IP- or TDM-originated traffic in order to apply Section 251 to managed IP interconnection arrangements. (XO TDM-IP Reply Comments, *supra*, at 6.)

AT&T also continues to argue that the public Internet and managed IP networks should be treated as one and the same, thereby attempting to distort reality. AT&T Comments at 21-22. As XO has explained in detail before, there is a real and, for regulatory purposes, meaningful difference between the "best efforts" Internet and managed IP networks. Even if at times the two networks use some of the same physical facilities, they utilize completely independent network paths. *See discussion in XO TDM-IP Comments at 9-11, 13-14; XO TDM-IP Reply Comments, supra, 7 and nn. 15-16.*

⁴⁴ Unfortunately, some of the Commission regulations implementing Sections 251 and 252 are technologically dependent, such as the unbundling, i.e., copper retirement rules. This technological dependence needs to be reevaluated in light of current market realities. *See generally XO/Broadview 11358 Comments; XO/Broadview 11358 Reply Comments.*

due to network efficiencies, fewer points of interconnection, smaller number of facilities to maintain, and no unnecessary conversions.

In locations where ILECs control the only physical access to end users and where they are increasingly seeking to retire existing copper and only support IP-based access, competitive provision of advanced voice and broadband communications by competitors requires that XO and others have the opportunity to obtain access to those physical connections at reasonable prices. Otherwise, business and enterprise customers will more commonly find that their commercially attractive choices of service providers have been reduced to one – the ILEC.⁴⁵

V. CONCLUSION

For the reasons set forth herein and in XO's initial comments in response to the Task Force Notice, the Commission should decline to commence any trials regarding IP interconnection, all-IP networks, or copper-to-fiber transition. Rather, the Commission should leverage the considerable experience that industry participants have already provided and proceed in its existing proceedings to address the proper regulatory framework that applies as the PCN technology evolves and to ensure competitors are able to obtain interconnection and access

⁴⁵ At the same time that the Commission clarifies the ILECs' obligations to provide for interconnection and access to end user locations, it should articulate the role of state commissions.

to end user locations from incumbents on reasonable and non-discriminatory rates, terms, and conditions.

Respectfully Submitted

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