I. Introduction

On December 29, 2014, Windstream Corporation (“Windstream”) filed a Petition for Declaratory Ruling requesting that the Commission “issue a declaratory ruling to confirm that an incumbent local exchange carrier’s (“ILEC’s”) obligations to provide DS1 and DS3 capacity loops on an unbundled basis pursuant to 47 U.S.C. § 251(c)(3) and 47 C.F.R. §§ 51.319(a)(4) and (5) are not altered or eliminated either by replacement of copper with fiber or by the conversion of transmission from TDM to Internet Protocol (“IP”) format.”¹

The need for Windstream’s Petition arose because Verizon and AT&T have asserted that ILECs have no obligation to continue providing unbundled DS1 and DS3 capacity loops and other unbundled network elements (“UNEs”) when they retire copper or transition from TDM to

IP services. For example, Verizon stated that after the retirement of copper facilities in Midlothian, Virginia, it will “no longer be required to offer UNEs or other services over copper facilities.” Similarly, AT&T has asserted that there is “no high capacity loop UNE requirement in an all-IP environment.”

These ILEC assertions are inconsistent with the Commission’s prior conclusions. Most recently, for example, the Commission has stated that “the mere fact that a carrier obtains discontinuance authorization under section 214(a) for [TDM or copper loop based] services has no legal bearing on its obligation to provide UNEs[].” As shown below, these ILEC assertions are also inconsistent with the plain language of the Commission’s unbundling rules, which are technology neutral. They are also inconsistent with the tentative conclusion in the Technology Transitions docket that the Commission “should require incumbent LECs that seek section 214 authority to discontinue, reduce, or impair a legacy service that is used as a wholesale input by competitive carriers to commit to providing competitive carriers equivalent wholesale access on equivalent rates, terms, and conditions.” Given the extent to which CLECs must rely on the

2 Windstream Petition, at 10.
3 See Short Term Public Notice of Network Change Under Rule 51.333(a) for Midlothian, Virginia, at 2 (Oct. 20, 2104), as amended; Windstream Petition, at 10.
5 Technology Transitions NPRM at ¶ 109 (quoting, Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934 to Provide In-Region, InterLATA Services in Michigan, 12 FCC Rcd. 20543, 20595, ¶ 95 (1997) (emphasis added). See also Id. at ¶ 106, fn.203 (“No discontinuance would affect an incumbent LEC’s obligations to provide unbundled access to loops under section 51.319(a)(4) of our rules.”).
6 Ensuring Customer Premises Equipment Backup Power for Continuity of Communications, Technology Transitions, Policies and Rules Governing Retirement of Copper Loops by ILECs, Special Access for Price Cap Local Exchange Carriers, et al., PS Docket No. 14-174,
ILECs for last mile connections and transport, especially at the DS0, DS1, and DS3 levels, there should be no ambiguity about whether ILECs must continue to provide these UNEs and/or comparable replacement elements (that perform the same functions) at equivalent prices, terms and conditions.

II. The Commission Should Declare That CLECs Remain Entitled to DS1, DS3 UNE Loops and Unbundled Dedicated Transport, During and After the IP Transition

A. The DS1 and DS3 Loop and Transport Unbundling Rules Are Technology Neutral

The language of Commission Rule 51.319 mandating DS1 and DS3 loop unbundling is technology neutral; it does not limit the ILEC’s DS1 and DS3 loop unbundling obligations to copper loops or to TDM-based services. The rule provides that a “DS1 loop is a digital local loop having a total digital signal speed of 1.544 megabytes per second,” and “DS1 loops include, but are not limited to, two-wire and four-wire copper loops capable of providing high-bit rate digital subscriber line services, including T1 services.” Thus, the DS1 UNE loop is defined in terms of its function and capacity, not in terms of the technology used to perform the function. Likewise, a DS3 UNE loop is defined in terms of its function and capacity, as “a digital local loop having a total digital signal speed of 44.736 megabytes per second.”

More generally, the local loop network element that is required to be unbundled is defined without reference to TDM, circuit switching, or copper loop technology. Rather, it is

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GN Docket No. 13-5, RM-11358, WC Docket No. 05-25, NPRM and Declaratory Ruling, at ¶ 110 (November 25, 2014) (“Technology Transitions NPRM”) (emphasis added).

7 47 C.F.R. § 51.319.


10 See, e.g., Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Order on Remand, FCC 04-290, 20 FCC
defined generically as “a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and the loop demarcation point at the end-user customer premises.”11 In addition, the local loop element is defined to include “all electronics, optronics, and intermediate devices (including repeaters and load coils) used to establish the transmission path to the end-user customer premises.”12 The use of the term “optronics” eliminates any doubt that the definition encompasses not only copper loops (for which the term would be inapplicable) but also devices and technologies associated with fiber optic transmission systems.13 The definition of local loop extends to any transmission medium including copper facilities, fiber optic cables and equipment, wireless and coax systems.

The definitions of DS1 and DS3 dedicated transport UNEs are also technology neutral. Dedicated transport is defined as:

incumbent LEC transmission facilities between wire centers or switches owned by incumbent LECs, or between wire centers or switches owned by incumbent LECs and switches owned by requesting telecommunications carriers, including, but not limited to, DS1–, DS3–, and OCn-capacity level services, as well as dark fiber, dedicated to a particular customer or carrier.14

This rule defines the dedicated transport UNEs as a transmission facility without regard to whether the underlying technology deployed is TDM or IP-based. Moreover, other rules define the DS1 and DS3 transport UNEs in terms of capacity with no mention of whether the underly-
ing technology is TDM or IP-based or provided over fiber.\textsuperscript{15} Thus, as with UNE loops, the ILEC obligation to unbundled dedicated transport is technology neutral and determined by section 251(d)(2)’s impairment analysis, not whether the underlying facility is IP or fiber based.\textsuperscript{16}

**B. CLECs Remain Impaired Absent Access to Unbundled ILEC Loops and Transport**

The Act mandates that the Commission’s unbundling rules be founded largely upon an assessment of whether “the failure [of an ILEC] to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer” (\textit{i.e.}, impairment analysis).\textsuperscript{17} As Windstream rightly notes: “competing local exchange carriers do not become ‘unimpaired’ simply because an ILEC converts a DS1 or DS3 capacity loop from copper to fiber, or because an ILEC converts the mode of transmission over that loop to IP”\textsuperscript{18} from TDM. Likewise, CLECs also do not become suddenly unimpaired with respect to DS1 and DS3 transport when the underlying technologies change.\textsuperscript{19}

As Granite sets forth more fully in its comments on Technology Transitions, the shift in network technology from TDM to IP does not alter the economics of deploying competitive

\textsuperscript{15} 47 C.F.R. § 51.319(d)(2)(ii) (“Dedicated DS1 transport consists of incumbent LEC interoffice transmission facilities that have a total digital signal speed of 1.544 megabytes per second and are dedicated to a particular customer or carrier.”) 47 C.F.R. § 51.319(d)(2)(iii) (“Dedicated DS3 transport consists of incumbent LEC interoffice transmission facilities that have a total digital signal speed of 44.736 megabytes per second and are dedicated to a particular customer or carrier.”).

\textsuperscript{16} \textit{TRRO Order,} 2604, ¶ 126 (2005) (“We find that requesting carriers are impaired without access to DS1-capacity transport on all routes except those connecting two Tier 1 wire centers.”);

\textsuperscript{17} 47 U.S.C. § 251(d)(2)(B) (emphasis added).

\textsuperscript{18} Windstream Petition, at 1-2.

\textsuperscript{19} \textit{See, e.g., TRRO Order,} 2605, ¶ 126 (“In the Triennial Review Order, the Commission found that ‘competing carriers generally cannot self-provide DS1 transport’ and that ‘[a] carrier requiring only DS1-capacity transport between two points typically does not have a large enough presence along a route (generally loop traffic at a central office) to justify incurring the high fixed and sunk costs of self-providing just that DS1 circuit.’”).
networks to serve the relatively low bandwidth locations served by CLECs such as Granite and Windstream. The Commission has determined that all competitive carriers, including cable companies, “face extensive economic barriers” to the deployment of competitive facilities where they lack existing facilities needed to serve the customer.\(^{20}\) As Windstream notes, the “Commission found that ‘the barriers to entry impeding competitive deployment of loops are substantial,’\(^{21}\) and noted that ‘competitive LECs face large fixed and sunk costs in deploying competitive fiber, as well as substantial operational barriers in constructing their own facilities.’\(^{22}\) Moreover, “[t]he most significant portion of the costs incurred in building a fiber loop results from deploying the physical fiber infrastructure into underground conduit to a particular location, rather than from lighting the fiber-optic cable.”\(^{23}\) As the Commission held in the TRRO Order, “[i]n addition to the substantial fixed and sunk costs involved in deploying competitive fiber, competitive LECs also face substantial operational barriers to constructing their own facilities.”\(^{24}\) These operational barriers include “problems in securing rights-of-ways from local authorities in order to dig up streets prior to laying fiber, including lengthy negotiations with local authorities over the ability to use the public rights-of-way and obtaining building and zoning permits.”\(^{25}\)


\(^{21}\) Windstream Petition, at 4, quoting, TRRO Order, 2617, ¶ 153.

\(^{22}\) Windstream Petition, at 4, quoting, TRRO Order, at 2616, ¶ 150. See also, n.419 (“these costs include the costs of obtaining rights of way and other necessary legal permissions, the cost of the actual fiber-optic facilities, and the costs of physical deployment itself”).

\(^{23}\) TRRO Order, at 2616, ¶ 150.

\(^{24}\) TRRO Order, at 2616, ¶ 151.

\(^{25}\) TRRO Order, at 2617, ¶ 151.
The Commission observed that “[l]oop impairment is more closely related to the demand of the individual customer served by such a loop than is impairment with regard to dedicated transport,” and concluded that “[b]ecause a loop serves a specific location and cannot economically be transferred to serve another customer location, most of the costs of constructing loops are sunk costs.” These observations are particularly accurate for the types of customers served by Granite, which typically have relatively low bandwidth requirements that cannot justify a business case for loop construction. These enormous barriers to competitive deployment to the locations typically served by Granite and other competitive providers are in no way obviated, and indeed may be heightened, by the ongoing transitions from TDM to IP-based services.

Further, continued CLEC access to unbundled loops and transport does not undermine ILEC incentives to invest in new network infrastructure. The Commission, in the Qwest Phoenix Forbearance Order, said it was unconvinced that forbearance from unbundling obligations would affect Qwest’s investment incentives, because “for the most part, the loop and transport UNEs at issue in this proceeding are legacy facilities that already have been constructed.” Moreover, the ILECs have continued to invest in network upgrades in the ten years since the Commission issued its TRRO Order.

In sum, the ILEC high capacity loop and DS1 and DS3 transport unbundling obligations of Section 251(c)(3) of the Act are technology neutral and ILECs remain obligated to provide

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26 TRRO Order, at 2617, ¶ 152.
28 See, Qwest Phoenix Forbearance Order, 25 FCC Rcd 8622, 8677, ¶ 108. In this proceeding, Qwest sought forbearance from the loop and transport unbundling obligations of section 251(c)(3) and 271(c)(2)(B) of the Act as implemented in the Commission’s rules. Id. at ¶ 22.
unbundled access to high capacity loops and DS1 and DS3 transport irrespective of whether the loop or transport is copper or fiber, or whether transmission technology employed is TDM or IP-based. Thus, as the Commission concluded in the Technology Transitions NPRM, “the mere fact that a carrier obtains discontinuance authorization under section 214(a) for [TDM or copper loop based] services has no legal bearing on its obligation to provide UNEs.”

C. Most Businesses, Non-Profits, and Many Government Entities Would Experience Reduced Choices, Less Innovation and Higher Prices If the Commission Fails to Make UNE Loops and Transport Available

The Commission has concluded that “Technology transitions must not harm or undermine competition.” As COMPTEL has observed, “the overwhelming majority of competition in the business broadband market comes from competitive carriers that rely substantially on last-mile inputs from the incumbent LEC.” Windstream submitted data from research firm GeoResults that demonstrates CLECs are currently the primary providers of competitive choice to non-residential customers and account for a greater percentage of wireline communications expenditures than the cable industry across all business sizes, based on number of employees, and are second only the ILECs.

As Windstream notes, “[u]nbundled DS1 and DS3 capacity loops are used to provision competitive communications offerings, in IP as well as TDM formats, to many small businesses and nonprofits as well as smaller sites of multi-location business, government, and nonprofit

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29 Technology Transitions NPRM, at ¶ 109.
30 Technology Transitions NPRM, at ¶ 109.
entities.” Because Granite’s customers only have limited demand for communications service at any given location, the locations at which Granite provides service are typically ill-suited for competitive fiber deployment due to the barriers discussed above. Wireless services are not a viable substitute because they do not provide the features and reliability that Granite’s customers desire. Cable companies rarely have facilities at the locations where Granite’s customers, such as convenience stores, gas stations, supermarkets, wholesale clubs and pizzerias, need service. As a result, as discussed in Granite’s Comments on the Technology Transitions, Granite is dependent on the ILEC for reasonably-priced wholesale DS0 loop, shared switching and transport inputs that are necessary to serve their customer locations with relatively modest bandwidth requirements, typically no greater than the “main street customers” that Windstream identified and often serves.

As COMPTEL has observed, “[w]ithout last mile access and interconnection - the building blocks of competition - on reasonable rates, terms, and conditions, competitive carriers will be forced to decrease investment in and innovation in business broadband.” In sum, if the Commission permits ILECs to avoid their unbundling obligations due to the technology transitions, there will be less innovation, less investment, and fewer choices to the small and medium sized businesses and multi-location businesses served by Granite, Windstream and other competitive providers.

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33 Windstream Petition, at 10.
34 Granite Comments, at 3-5.
35 Ex Parte Letter of E. Einhorn, Windstream Communications, Inc., to Jonathan Sallet, FCC, GN Docket No. 13-5, et al., at 4 (April 28, 2014) (“Windstream April 28 Ex Parte”) (Windstream serves “‘main street’ businesses, such as medical practices, pharmacies, and insurance brokers, that are the backbone of their local economies.”).
36 COMPTEL April Letter, at 6.
III. Conclusion

For the reasons above, Granite urges the Commission to grant Windstream’s Petition and affirm that the ILEC’s obligations to provide loops and transport on an unbundled basis pursuant to 47 U.S.C. § 251(c)(3) and 47 C.F.R. § 51.319 are not altered or eliminated either by replacement of copper with fiber or by the conversion of transmission from TDM to IP.37

Respectfully submitted,

/electronically signed/

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37 Granite underscores that it does not support or concur with Windstream’s Petition or analysis regarding the ILEC’s unbundling obligations regarding DS0 capacity loops or so-called “mass market” obligations. See, e.g., Windstream Petition, at 13-14.