

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of	)	
	)	
Applications of XO Communications, LLC	)	WC Docket No. 16-70
and Verizon Communications Inc. for	)	
Transfer of Control of Licenses and	)	
Authorizations	)	
	)	
Applications of CELLCO Partnership Verizon	)	ULS File No. 0007162285
Wireless and Nextlink Wireless, LLC, a	)	
Subsidiary of XO Holdings, for Consent to a	)	
Long-Term <i>De Facto</i> Transfer Spectrum	)	
Leasing Arrangement Involving Local	)	
Multipoint Distribution Service and 39 GHz	)	
Spectrum	)	
	)	
	)	
	)	

**PETITION TO DENY OF DISH NETWORK CORPORATION**

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Applications of CELLCO Partnership D/BA	)	ULS File No. 0007162285
Verizon Wireless and Nextlink Wireless,	)	
LLC, a Subsidiary of XO Holdings, for	)	
Consent to a Long-Term <i>De Facto</i> Transfer	)	
Spectrum Leasing Arrangement Involving	)	
Local Multipoint Distribution Service and 39	)	
GHz Spectrum	)	

**PETITION TO DENY OF DISH NETWORK CORPORATION**

DISH Network Corporation (“DISH”)<sup>1</sup> respectfully submits this Petition to Deny the requested authority for both above referenced transactions—the proposed acquisition of XO Communications, LLC (“XO”) by Verizon Communications Inc. (“Verizon”) and the proposed long-term lease of spectrum from Nextlink Wireless, LLC (“Nextlink”), an XO subsidiary, to Verizon’s subsidiary, Cellco Partnership.<sup>2</sup> The two transactions would place Verizon, one of the two largest mobile phone carriers in the nation, in control of resources—specifically XO’s fiber

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<sup>1</sup> DISH is a party in interest under Section 309(d)(1) of the Communications Act. *See* 47 U.S.C. § 309(d)(1).

<sup>2</sup> *See* Public Notice, WC Docket No. 16-70, *Application Filed For the Transfer of Control of XO Communications, LLC to Verizon Communications Inc.*, DA 16-393 (Apr. 12, 2016); Public Notice, ULS File No. 0007162285, *Cellco Partnership D/B/A Verizon Wireless and Nextlink Wireless, LLC, a Subsidiary of XO Holdings, Seek FCC Consent to a Long-Term De Facto Transfer Spectrum Leasing Arrangement Involving Local Multipoint Distribution Service and 39 GHz Spectrum*, DA 16-394 (Apr. 12, 2016).

network and Nextlink's local multipoint distribution service ("LMDS") and 39 GHz spectrum—that promise to play central roles in 5G applications and hence will be important to the companies competing against Verizon in the commercial mobile radio service ("CMRS")-5G marketplace. Just as important, the transactions will eliminate current and potential competition between Verizon and XO in the mobile backhaul (both wireless and fiber), Internet transit, and enterprise and wholesale markets.

## I. Introduction and Summary

Verizon’s approach to its transaction with XO Holdings—purchasing XO Communications now, and acquiring *de facto* control over Nextlink’s LMDS and 39 GHz assets through a leasing arrangement (with an ultimate option to purchase the licenses)—has resulted in an application and approval process that downplays the interrelated nature of the purchase and lease and their significant combined effects. Even as briefly and inadequately described by the Applicants,<sup>3</sup> the purchase and lease will have serious anticompetitive horizontal and vertical effects in a number of U.S. mobile and Internet communications markets. Verizon has not only failed to demonstrate that the proposed transactions would serve the public interest, it has failed to go through even such rudimentary motions of competitive analysis as meaningful product and geographic market definitions, and has failed to provide key information necessary for the Commission and the public to evaluate the transactions.

***Control over important 5G spectrum.*** The proposed lease of Nextlink’s LMDS and 39 GHz frequencies to Verizon will give the combined company control over important 5G spectrum. 5G requires dramatically increased amounts of bandwidth to support the service in the form of both traditional backhaul and emerging “fronthaul” architectures. In the Commission’s words, “provision of 5G-level service will require use of higher frequency bands in at least some

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<sup>3</sup> See *XO Holdings and Verizon Communications Inc., Consolidated Applications to Transfer Control of Domestic and International Section 214 Authorizations*, WC Docket No. 16-70 (Oct. 30, 2015) (“Application”); *Application of Cellco Partnership and Nextlink Wireless, LLC for Long-Term De Facto Transfer Leasing Arrangement*, ULS File No. 0007162285, Exhibit 1: Description of Transaction and Public Interest Statement (Mar. 3, 2016) (“Lease Public Interest Statement”). The Applicants filed a supplement to their application on March 22, 2016. See Letter from Bryan N. Tramont, Counsel to Verizon Communications Inc., and Thomas W. Cohen, Counsel to XO Holdings, to Marlene H. Dortch, FCC, WC Docket No. 16-70 (Mar. 22, 2016) (“March 22 Supplement”). Verizon, Verizon Wireless, Cellco Partnership, XO Holdings, XO Communications, and Nextlink are collectively referred to as “the Applicants.”

places where traffic demands will exceed available capacity.”<sup>4</sup> The LMDS frequencies are among the most important next-frontier-spectrum for 5G technologies.<sup>5</sup> Stated simply, if the lease arrangement goes forward, licensed millimeter wave (“mmWave”) spectrum in a critical frequency range will be controlled almost exclusively by Verizon.

***Wireless- and fiber-based backhaul for mobile services.*** Backhaul facilities link a mobile wireless service provider’s cell sites to the switching centers that provide connections to the provider’s core network. As summarized by the Commission, “backhaul connections are an integral component of a wireless service provider’s network.”<sup>6</sup> Because of increasing consumer demand for mobile broadband services, carriers have worked to complement wireless backhaul with fiber links, making Verizon’s acquisition of XO’s fiber assets particularly significant. Carriers are also working to deploy small cells to “densify” their networks to support both increased demand and 5G technologies.<sup>7</sup> With many more cells comes a much greater need for backhaul, both fiber and wireless.<sup>8</sup> The fiber and wireless backhaul assets the Applicants would

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<sup>4</sup> *Use of Spectrum Bands Above 24 Ghz for Mobile Radio Services, Notice of Inquiry*, 29 FCC Rcd. 13020, 13024 ¶ 4 (2014).

<sup>5</sup> *Use of Spectrum Bands Above 24 Ghz for Mobile Radio Services, Notice of Proposed Rulemaking*, 30 FCC Rcd. 11878, 11908 ¶ 95 (2015) (“*Spectrum Frontiers NPRM*”) (proposing to “permit existing LMDS and 39 GHz licensees to exercise the full extent of these rights—including mobile rights— . . . because of the great benefits these new technologies could bring to consumers.”).

<sup>6</sup> *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, Eighteenth Report*, 30 FCC Rcd. 14515, 14564 ¶ 69 (2015) (“*2015 Mobile Wireless Report*”).

<sup>7</sup> See Joey Jackson, *Dark Fiber Key to Future of Small Cells, Backhaul*, RCR Wireless News (Dec. 21, 2015), <http://www.rcrwireless.com/20151221/network-infrastructure/dark-fiber-key-to-future-of-small-cells-backhaul-tag20>; *Spectrum Frontiers NPRM*, 30 FCC Rcd. at 11952 ¶ 272.

<sup>8</sup> See Sean Kinney, *Small Cells Becoming Integral Part of Wireless Networks*, RCR Wireless News (Jan. 12, 2016), <http://www.rcrwireless.com/20160112/network-infrastructure/small-cells-integral-to-wireless-networks-tag17> (“Fiber is the backhaul option of preference, but, as

acquire will be critical to support the very low latency and high data rate targets of 5G technologies.<sup>9</sup> Today, the two companies' fiber networks compete head-on with one another in many geographic areas. This merger would cause the loss of competition in the national market too, as companies wishing to build a national backhaul network will have one less path for doing so. XO's dark fiber assets, and Verizon's control over them that would result from the transaction, will create a persistent bottleneck at yet another link of the mobile services vertical chain. This will reduce options for backhaul resellers and ultimately for CMRS providers—other than Verizon, of course.

***Internet transit.*** Content providers rely on transit providers to deliver their content to consumers inside the terminating access network of Internet service providers (“ISPs”) like Verizon. Both Verizon and XO provide transit services, but XO is one of just a handful of independent high-capacity transit providers that counterbalance the power of ISPs. Verizon's acquisition of XO would eliminate a competitor in the transit marketplace, decrease the number of routes into Verizon's network, and enhance Verizon's power to charge interconnection fees or otherwise hinder the delivery of content into its network.

***Enterprise and wholesale markets.*** Both Verizon and XO provide high-capacity data IP services to wholesale and enterprise customers in major markets throughout the United States.

Verizon's acquisition of XO will remove one of the top providers of high-capacity data IP

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networks continuously grow more and more dense with deployment of small cells, getting access to fiber becomes increasingly tricky.”).

<sup>9</sup> Sean Kinney, *Evolution Toward 5G, Small Cell Deployments and Dark Fiber All Impact Backhaul Outlook*, RCR Wireless News (Feb. 12, 2016) <http://www.rcrwireless.com/20160212/network-infrastructure/5g-backhaul-requirements-more-capacity-edge-intelligence-tag17> (“With the growth of small cells and the need for more backhaul to towers due to increased data demands, infrastructure providers know eventually there will be a market for the dormant fiber.”).

services to wholesale and enterprise customers. The transaction will also allow Verizon to reduce its dependency on leased fiber from competitors and further increase its historically strong position in the wholesale and enterprise markets.

To date, XO has been a competitive player, providing backhaul and transit capacity to anyone who needs it, including companies that compete with Verizon, or companies that turn to XO to avoid having to negotiate with Verizon. The instant transactions would eliminate this neutral presence, as well as one of the very few independent service providers with an expansive geographic footprint.

For these and other reasons, the Commission should set both the purchase and the lease applications for a hearing and deny them.

## **II. The Wireline Purchase and the Spectrum Lease Must Be Evaluated as Part of a Single Transaction**

Control over XO's and Nextlink's assets will substantially enhance Verizon's already dominant position by aggregating substantial amounts of wireline and wireless inputs important to a number of communications markets. Indeed, wireline and wireless facilities are often substitutes for each other in the mobile backhaul, Internet transit, and enterprise services markets, and promise to become even more interchangeable as engineers are able to realize the high-capacity promise of the upper frequency bands. The competitive effects of the purchase of XO and the lease of spectrum from Nextlink are therefore intertwined, and the Commission should analyze the potential competitive harms of both applications together as a single transaction. Commission precedent, too, militates in favor of this consolidated analysis.<sup>10</sup>

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<sup>10</sup> See, e.g., *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corp. for Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order*, 19 FCC Rcd. 21522 (2004) (considering jointly AT&T's and Cingular's request for consent to



By structuring the spectrum component of the transaction as a *de facto* transfer lease instead of an acquisition, Verizon has avoided discussion of the total impact of its deal with XO Holdings. But the spectrum licenses appear to be a key, if not the most important, component of Verizon's deal with XO Holdings. Verizon will acquire control over Nextlink's 93 LMDS and nine 39 GHz licenses. These assets come with "high expectations" that these networks, which use the mmWave bands, "will provide capabilities for a tremendous variety of new devices and applications," including broadband data, Internet of Things applications, Machine Type Communications, and "mission critical and public safety services, among many others."<sup>11</sup> Indeed, the Commission has proposed to increase the flexibility of LMDS and 39 GHz authorizations by giving mobile operating rights to existing fixed LMDS and 39 GHz band licensees.<sup>12</sup>

Verizon, of course, recognizes the value of these assets. During a recent investor presentation, Verizon's Chief Financial Officer, Francis Shammo, stated:

We're actually renting that [LMDS] spectrum [from XO] with an option to buy . . . [t]his rental agreement enables us to include that [spectrum] in some of our R&D development with 28 gigahertz. So that just continues the path that we're on in launching 5G as soon as the FCC clears spectrum.<sup>13</sup>

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transfer control of all licenses held by AT&T to Cingular, including long-term *de facto* leases); *Applications of Cellco Partnership D/B/A Verizon Wireless and Atlantis Holdings LLC for Consent to Transfer Control of Licenses, Authorizations, and Spectrum Manager and De Facto Transfer Leasing Arrangements, Memorandum Opinion and Order and Declaratory Ruling*, 23 FCC Rcd. 17444 (2008) (consolidating various applications filed by Verizon Wireless for transfer of control of ALLTEL Corporation's licenses, authorizations, and *de facto* leasing arrangements).

<sup>11</sup> *Spectrum Frontiers NPRM*, 30 FCC Rcd. at 11952 ¶ 260.

<sup>12</sup> *Id.* at 11881 ¶ 4.

<sup>13</sup> Transcript, Verizon Communications, Inc., Company Conference Presentation, S&P Capital IQ (McGraw Hill Financial) (March 1, 2016).

XO similarly views the Nextlink spectrum as a key asset: “XO believes that the LMDS and 39 GHz bands hold enormous potential for the development of 5G radio services.”<sup>14</sup>

### **III. Verizon Has Not Met Its Burden of Proving the Transactions Are in the Public Interest**

#### **A. Standard of Review**

The Applicants bear the burden of showing that the proposed transactions will serve “the public interest, convenience, and necessity.”<sup>15</sup> The Commission’s public interest determination encompasses the “broad aims of the Communications Act,” which include a “deeply rooted preference for preserving and enhancing competition in relevant markets.”<sup>16</sup> But it is not enough for the Applicants to prove that the transaction will not harm competition; rather, they must affirmatively prove that it will benefit competition.<sup>17</sup> Indeed, the Commission has recently focused special attention on the links of the vertical chain at issue here. The Commission’s

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<sup>14</sup> XO Communications, LLC, Comments, GN Docket No. 14-177, at 5 (Jan. 28, 2016) (“XO Comments”).

<sup>15</sup> 47 U.S.C. § 310(d); *see also Applications of AT&T Inc. and DIRECTV for Consent to Assign or Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order*, 30 FCC Rcd. 9131, 9134 ¶ 2 (2015) (“AT&T/DIRECTV Order”).

<sup>16</sup> *AT&T/DIRECTV Order*, 30 FCC Rcd. at 9140 ¶ 19; *Applications of Comcast Corporation, General Electric Co. & NBC Universal, Inc. for Consent to Assign Licenses and Transfer Control of Licensees, Memorandum Opinion and Order*, 26 FCC Rcd. 4238, 4248 ¶ 23 (2011) (“Comcast/NBCU Order”).

<sup>17</sup> *Comcast/NBCU Order*, 26 FCC Rcd. at 9140 ¶ 24; *see also Application of GTE Corp., Transferor, and Bell Atlantic Corp., Transferee, for Consent to Transfer Control of Domestic and International Authorizations and Application to Transfer Control of a Submarine Landing License, Memorandum Opinion and Order*, 15 FCC Rcd. 14032, 14046-47 ¶ 23 (2000); *Application for Consent to the Transfer of Control of Licenses from Comcast Corp. and AT&T Corp., Transferors, to AT&T Comcast Corp., Transferee, Memorandum Opinion and Order*, 17 FCC Rcd. 23246, 23256 ¶ 28 (2002); *AT&T Corp., British Telecomm., PLC, VLT Co. L.L.C., Violet License Co. LLC, and TNV [Bahamas] Ltd Applications for Grant of Section 214 Authority, Modification of Authorizations and Assignment of Licenses in Connection with the Proposed Joint Venture Between AT&T Corp. and British Telecommunications, plc, Memorandum Opinion and Order*, 14 FCC Rcd. 19140, 19147-48 ¶ 15 (1999).

General Counsel Jon Sallet has specifically pointed out that backhaul services are the *sine qua non* condition to the deployment of mobile broadband.<sup>18</sup>

The Applicants must show that the transactions will enhance competition. As Mr. Sallet has stated, “the burden is on the applicants to demonstrate that a transaction will further the public interest, and that starts with competition.”<sup>19</sup> The Applicants have not come close to carrying that burden.

**B. Verizon Has Failed to Provide Key Information Necessary for a Full Evaluation of the Transactions**

Instead of carrying their burden of proof, the Applicants offer a cursory statement that the purchase of XO will “generate substantial public interest benefits with no material countervailing harms,”<sup>20</sup> and a three-page dismissal of any potential harms caused by the purchase transaction.<sup>21</sup> Similarly, Verizon’s Public Interest Statement in support of the lease with Nextlink is little more than two pages long (the public interest section itself is three short paragraphs).<sup>22</sup> And the four-page supplement to the merger application filed in response to a request for additional

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<sup>18</sup> Jon Sallet, General Counsel, FCC, Remarks at INCOMPAS 2016 Policy Summit, Newseum Washington, D.C., at 8 (Feb. 10, 2016) (“Sallet Remarks”) (“[T]he structure and efficient performance of the market for dedicated business data services may be fundamental to the deployment of 5G mobile broadband, which will require many more cell sites and thus much greater demand for the business data services generally referred to as backhaul. Control of a necessary input can impact the competitiveness of the downstream market, in this case mobile broadband.”).

<sup>19</sup> Jon Sallet, General Counsel, FCC, Remarks at Telecommunications Policy Research Conference, at 2 (Sept. 25, 2015).

<sup>20</sup> Application, Exhibit 1 at 4.

<sup>21</sup> *See id.* at 12-15.

<sup>22</sup> *See* Lease Public Interest Statement at 2-4.

information from the Wireline Competition Bureau does not come close to remedying the fatal defects and lack of key information in the Application.<sup>23</sup>

Among other things:

- The Applicants have failed to provide any information on Verizon’s wireline assets.
- The Applicants have failed to provide any detailed analysis of the geographic overlap between Verizon’s and XO’s wireline assets and point-to-point wireless links.
- The Applicants have failed to provide a copy of the purchase agreement with XO.
- The Applicants have failed to address the spectrum lease with Nextlink Wireless in any detail or even provide a copy of the lease or a summary of its key terms (including the terms of the 2018 option).
- The Applicants have failed to provide information on third party competitors with Verizon and XO in the relevant markets.
- The Applicants have failed to provide any economic analysis or expert testimony to support their inadequate assessment of the effects of the transactions on the relevant markets.

The Applicants offer only the most basic attempt to define the relevant geographic and product markets affected by the transactions. Indeed, in the supplement, ostensibly intended to provide more information, Verizon admits that “Applicants do not have comprehensive market share data.”<sup>24</sup> The Commission should require the Applicants to provide market definitions, along with comprehensive information to provide an adequate picture of competition in each of these markets.<sup>25</sup>

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<sup>23</sup> See generally March 22 Supplement.

<sup>24</sup> See *id.* at 4.

<sup>25</sup> See 47 C.F.R. § 1.9030; FCC Form 608, Main Form Filing Instructions, at 9 (Jan. 2014), <https://transition.fcc.gov/Forms/Form608/608.pdf> (“Parties submitting applications/notifications

The *Mobile Spectrum Holdings R&O* provides a useful guide as to what market share information the Applicants should provide:

the total number of rival service providers; the number of rival firms that can offer competitive service plans; the coverage by technology of the firms' respective networks; the rival firms' market shares; the combined entity's post-transaction market share and how that share changes as a result of the transaction; the amount of spectrum suitable for the provision of mobile telephony/broadband services controlled by the combined entity; and the spectrum holdings of each of the rival service providers.<sup>26</sup>

The Commission should require the Applicants to provide this information, among other things, so that the public can fully evaluate the competitive implications of this transaction.

#### **IV. The Transactions Will Produce Serious Adverse Effects on Competition, Both Horizontal and Vertical, in a Number of Markets**

##### **A. Verizon's Wireline and Point-To-Point Wireless Assets and Those of XO Overlap in a Number of Markets, Making This a Horizontal Merger**

XO provides voice, Internet access, transport services, backhaul, security, and cloud connectivity services through its extensive fiber-based IP and Ethernet network, which is among the largest in the nation.<sup>27</sup> Verizon provides a similarly extensive line of services, but also leases fiber from providers like XO to deliver its suite of services to business customers in markets it

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may in some instances be required to provide by means of an attachment, additional information not specifically requested elsewhere on FCC Form 608 to establish the qualifications of the Lessee/Sublessee/Transferee or to otherwise demonstrate that the proposed transaction is in the public interest. The burden is on the parties to determine whether such additional information is necessary under Section 310(d) in light of the circumstances of the particular Lease/Sublease.”).

<sup>26</sup> *Policies Regarding Mobile Spectrum Holdings; Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Report and Order*, 29 FCC Rcd. 6133, 6238 ¶ 280 (2014) (“*Mobile Spectrum Holdings R&O*”).

<sup>27</sup> See generally *Enterprise Business*, XO Communications, <http://www.xo.com/solutions/business/enterprise/> (last visited May 2, 2016). The network includes an inter-city network of approximately 20,000 fiber route miles and more than 5,600 owned metro fiber route miles. Application at 3.

does not serve, and to support its CMRS services.<sup>28</sup> In addition, both Verizon and XO currently compete in the provision of non-residential wireless broadband services delivered via point-to-point fixed wireless networks.

By acquiring XO, Verizon will eliminate its competitor in the backhaul and transit markets as well as the markets for wholesale and enterprise customers of both wireline- and wireless-based services. The Applicants' fiber networks appear to have significant overlap. The areas in which the transaction will eliminate XO as a fiber competitor include many of the metropolitan areas that house the nation's largest business centers, including Boston, Philadelphia, Pittsburgh, Baltimore, and Washington, D.C.<sup>29</sup> The Applicants' fixed wireless operations overlap, too. Within its wireless footprint, Verizon provides fixed wireless service through its "LTE Internet (Installed)" brand, which is available anywhere in Verizon's footprint with 4G LTE coverage—nearly the entire United States.<sup>30</sup> XO, through its affiliate Nextlink, is among the nation's largest holders of LMDS spectrum in the country with licenses in approximately 80 metropolitan markets across the United States, as well as the owner of a not

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<sup>28</sup> See generally *Solutions*, Verizon Communications, <http://www.verizonenterprise.com/products/> (last visited May 2, 2016). Through Verizon Global Enterprise Solutions, Verizon offers enterprise services to business and government customers around the globe. Verizon's network products and solutions support include public and private Internet services, IT and cloud computing solutions, and IP communications services. At the end of 2015, Verizon generated \$12.9 billion in revenue from this division, which represented approximately 34% of Verizon's aggregate revenues. Verizon's Global Wholesale division offers data, voice, local dial tone, and broadband services to carriers that use Verizon's facilities to provide service to their customers. At the end of 2015, Verizon generated \$6 billion from this division, which represented a proximately 16% of Verizon's wireline aggregate revenues. Verizon derives a portion of this revenue from several of its large telecommunications competitors. See Verizon Communications Inc., Annual Report, Form 10-K, at 9-10 (Feb. 23, 2016) ("Verizon 10-K").

<sup>29</sup> See March 22 Supplement at 1 & Exhibit 1.

<sup>30</sup> *LTE Internet (Installed) FAQs*, Verizon Wireless, <http://www.verizonwireless.com/support/lte-internet-installed-faqs/> (last visited May 2, 2016); *Better Matters*, Verizon Wireless, <http://www.verizonwireless.com/landingpages/better-matters/> (last visited May 2, 2016).

insignificant number of 39 GHz licenses.<sup>31</sup> XO's service areas include densely populated urban markets such as New York City, Los Angeles, Las Vegas, San Francisco, and San Diego among others.<sup>32</sup> Given Verizon's nearly ubiquitous coverage, almost all of XO's wireless broadband spectrum service areas are within Verizon's service areas. The transaction would not only eliminate the existing wireless broadband competition between the standalone companies, but also eliminate potential competition in 5G technologies.

**B. Verizon is a User of Backhaul and Transit Services, Making This a Vertical Merger as Well**

The transactions would cause significant vertical effects by allowing Verizon to gain control of many inputs needed by Verizon itself as well as its competitors for the provision of CMRS service. As discussed above, Verizon is a major provider of backhaul and transit services, but in those markets Verizon does not serve, it also leases fiber capacity from other providers to serve its business customers.<sup>33</sup> Verizon's and others' 5G deployment will crucially depend on backhaul, both fiber and wireless. XO and Nextlink together control key assets in both categories.<sup>34</sup> By acquiring XO and obtaining control over Nextlink's spectrum authorizations, Verizon would reduce its dependence on leased fiber and wireless backhaul from

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<sup>31</sup> See Application, Attachment 2; Press Release, XO Communications Expands Broadband Wireless Coverage Across Northern Virginia, (Apr. 5, 2010), <http://www.xo.com/about/news-and-events/press-releases/xo-communications-expands-broadband-wireless-coverage-across-northern-virginia/>; *XO Expands Broadband Wireless Coverage to 36 Markets*, Broadband News (Jul. 12, 2007), <https://broadband.wordpress.com/2007/07/12/xo-expands-broadband-wireless-coverage-to-36-markets/>.

<sup>32</sup> See, e.g., FCC, Universal Licensing System, Nextlink Local Multipoint Distribution Service Licenses: (WPLM397, New York, NY); (WPLM401, Los Angeles, CA); Nextlink 39 GHz, Auctioned Licenses: (WPQT946, Las Vegas, NV); (WPQT945, San Francisco, CA); (WPQT944, San Diego, CA).

<sup>33</sup> See Application at 7.

<sup>34</sup> XO Communications, Inc., Comments, GN Docket No. 14-177, at 4 (Jan. 18, 2016) ("XO Comments").

competitors, and conversely would increase its competitors' dependence on Verizon.<sup>35</sup>

Verizon's acquisition of XO will also eliminate an independent provider of Internet transit services, one of a limited number of such providers,<sup>36</sup> which of course interconnect with ISPs such as Verizon.

### **C. The Transactions Will Touch a Large Number of Relevant Product and Geographic Markets**

In light of the currently competing, potentially competing, and vertically linked activities of the two companies, these transactions should be analyzed in at least the following product markets: CMRS, backhaul for CMRS, Internet transit, and enterprise and wholesale.<sup>37</sup>

As for the relevant geographic markets, both local and national markets should be examined. The proposed transaction would eliminate competition in the local markets where the Applicants compete and where their facilities overlap. However, because Verizon's and XO's facilities—e.g., mobile backhaul sites, Internet transit fiber—support networks that deliver service nationwide, the Commission should also examine the national effects of the consolidation of those facilities under Verizon. The relevance of a national geographic market alongside local ones becomes obvious if we take the example of a national CMRS carrier. To ensure a nationwide backhaul network, the carrier can now resort to Verizon and a number of other backhaul providers, or to XO and a number of other backhaul providers. After the transactions, XO will disappear as a competitive alternative.

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<sup>35</sup> Verizon itself states that the transaction will allow Verizon to “reduce its dependency on leased fiber.” Application at 7.

<sup>36</sup> See Letter from Markham Erickson, Counsel to Netflix, Inc., to Marlene Dortch, FCC, MB Docket No. 14-57, at 5 (April 6, 2015) (“There are only six competitive options available to Netflix for transit to high-bandwidth customers in the United States: Cogent, Level 3, Tata, TeliaSonera, XO, and NTT.”).

<sup>37</sup> See *supra* Section I.



Consideration of local and national markets in such circumstances is also consistent with Commission precedent. The Commission commonly evaluates “a transaction’s competitive effects at the national level where a transaction exhibits certain national characteristics that provide cause for concern.”<sup>38</sup>

**V. The Transactions Would Set Incumbent Verizon Up to Enhance Its Dominance in the Mobile Market for the Foreseeable Future**

**A. High Frequency Spectrum May Alleviate the Mobile Bandwidth Crunch**

Consumers continue to demand more data, faster data, and better availability of that data. This apparently insatiable demand has forced a 4,000-fold increase in mobile data traffic in the past 10 years, and an almost 400-million-fold increase since 2000.<sup>39</sup> As the Commission recently explained, “[n]etwork connection speed and data consumption have exploded,” coinciding with “the deployment of faster network technologies” like 3G and 4G LTE.<sup>40</sup> Analysts project a further 1,000-fold increase in traffic demand over the next decade as carriers transition to 5G.<sup>41</sup>

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<sup>38</sup> See *Mobile Spectrum Holdings R&O*, 29 FCC Rcd. at 6225-26 ¶ 238.

<sup>39</sup> See Cisco Visual Network Index: Global Mobile Data Traffic Forecast Update, 2015-2020 White Paper, at 1 (Feb. 1, 2016), <http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html>.

<sup>40</sup> *Protecting and Promoting the Open Internet, Report and Order, Declaratory Ruling and Order*, 30 FCC Rcd. 5601, 5636 ¶ 89 (2015).

<sup>41</sup> *Spectrum Frontiers NPRM*, 30 FCC Rcd. at 11883 ¶ 8; see also Naga Bhushan et al., *Network Densification: The Dominant Theme for Wireless Evolution into 5G*, IEEE Communications Magazine 82, 88 (Feb. 2014), [http://cms.comsoc.org/SiteGen/Uploads/Public/Docs\\_TC\\_5GMWI/Network\\_Densification.pdf](http://cms.comsoc.org/SiteGen/Uploads/Public/Docs_TC_5GMWI/Network_Densification.pdf) (noting the need to support a “1,000-fold increase in traffic demand over the next decade”).

The mmWave bands could be particularly useful in supporting very high-capacity networks in high-density environments<sup>42</sup> because it is possible to have small, advanced architecture antennae with higher gains in these bands, which, together with the larger bandwidths available, facilitate very high broadband data rates.<sup>43</sup>

The mmWave spectrum at issue here includes the LMDS band, where Nextlink holds the lion's share of licenses, and the 39 GHz band, where Nextlink holds many licenses, too. These bands are allocated on an unshared, primary basis for terrestrial use. As a result, the Commission Chairman and Commissioners have recognized the importance of these bands for future 5G deployment.<sup>44</sup> XO and Verizon agree. An engineering study commissioned by XO found correctly that “the high-frequency UMFUS spectrum is well suited for 5G.”<sup>45</sup> Similarly, Verizon has indicated that “wideband millimeter wave spectrum holds much promise for 5G

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<sup>42</sup> Sundeep Rangan et al., *Millimeter-Wave Cellular Wireless Networks: Potentials and Challenges*, Proceedings of the IEEE Vol. 102, No. 3, 366 (Mar. 2014), <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6732923>.

<sup>43</sup> Claes Tidestav, *Massive Beamforming in 5G Radio Access*, Ericsson Research Blog (Mar. 19, 2015), <http://www.ericsson.com/research-blog/5g/massive-beamforming-in-5g-radio-access/>.

<sup>44</sup> See e.g., *Spectrum Frontiers NPRM*, Statement of Commissioner Clyburn, 30 FCC Rcd. at 12008 (“[E]ngineering advances [in the high frequency bands] will lead to 5G networks that will offer much higher data speeds and substantially lower latency than what commercial mobile services offer today.”); *Spectrum Frontiers NPRM*, Statement of Commissioner O’Rielly, 30 FCC Rcd. at 12014 (“There are great expectations of what may be possible from these airwaves – increased data speeds reaching 10 gigabytes/second, latency of one-thousandth of a second, increased spectral and energy efficiency, among others. If successful, it could lead to a technological revolution I like to refer to as wireless fiber.”); see also Tom Wheeler, *Leading Towards Next Generation “5G” Mobile Services*, FCC Blog, <https://www.fcc.gov/news-events/blog/2015/08/03/leading-towards-next-generation-5g-mobile-services> (Aug. 3, 2015, 3:05 PM) (“5G technologies, enabling higher-spectrum bands for mobility than previously thought possible.”).

<sup>45</sup> Reed Engineering, *Maximizing the Utility of the Upper Microwave Flexible Use Service Bands via Licensee Flexibility and Sound Spectrum Use Policies*, at 2 (Jan. 28, 2016) (attachment to XO Communications LLC, Comments, GN Docket No. 14-177).

applications requiring ultra-high speeds and ultra-low latencies.”<sup>46</sup> For example, these bands are well suited to emerging fronthaul, “Cloud RAN” architectures. Such architectures provide significant increases in capacity and reductions in cost by transporting digitized radio signals from many antenna locations to a central baseband processing location.

The LMDS and 39 GHz bands are already being considered for such 5G applications. In fact, these bands could be important for early 5G deployments by existing operators looking to augment their networks anchored by sub-3 GHz spectrum. Recent experimental testing has demonstrated the high-speed capabilities of a 5G network that incorporates the LMDS band.<sup>47</sup> Similarly, the 39 GHz band is likely to experience the same success when it, too, is tested. It is increasingly apparent that moving up to these mmWave bands represents an important solution for serving users and ensuring competitive choice.

#### **B. The Transaction Will Enable Verizon to Control Important Spectrum**

Significantly, the transaction would not only eliminate the existing wireless broadband competition between the standalone companies, but it would also eliminate potential competition in 5G technologies. Indeed, in its comments to the *Spectrum Frontiers NPRM*, XO indicated that it “is currently evaluating several different 5G business cases” and has plans to “develop a 5G business plan for its LMDS and 39 GHz licenses.”<sup>48</sup> For example, XO stated that one approach

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<sup>46</sup> Verizon Wireless, Comments, GN Docket No. 14-177, at 1 (Jan. 28, 2016).

<sup>47</sup> See, e.g., Press Release, *Samsung Electronics Sets 5G Speed Record at 7.5Gbps, Over 30 Times Faster Than 4G LTE*, Samsung (Oct. 15, 2014), <http://www.samsung.com/global/business/networks/insights/news/samsung-electronics-sets-5g-speed-record-at-7-5gbps-over-30-times-faster-than-4g-lte>; Press Release, *Verizon and Nokia Conduct Live 5G Pre-commercial Trial in Dallas-Fort Worth*, Nokia (Feb. 22, 2016), <http://networks.nokia.com/news-events/press-room/press-releases/verizon-and-nokia-conduct-live-5g-pre-commercial-trial-in-dallas-fort-worth-mwc16>.

<sup>48</sup> XO Comments at 5-6.

would be for it to “deploy an XO-branded mobile wireless network in high-traffic metro areas and enterprise buildings . . . XO could develop applications and services that are customized for a nomadic workforce, taking advantage of high-speed, low-latency 5G networks.”<sup>49</sup> XO could partner with any number of existing, sub-3 GHz operators to turn its vision into reality. In practice, it would have been in XO’s interest to cooperate with multiple existing operators looking to leverage the promise of the LMDS and 39 GHz bands. By acquiring control over these wireless assets, Verizon can apply them to its own (and potentially exclusively to its own) 5G business plans—indeed, the company already has plans to test the LMDS and 39 GHz bands for 5G applications, and has already secured the testing authority from the FCC for the LMDS band.<sup>50</sup> By gaining *de facto* control over Nextlink’s LMDS and 39 GHz spectrum, Verizon would not only eliminate XO as a separate user of these bands, but would also make it hard for anyone else to gain sufficient access to that spectrum to compete with Verizon.

Nextlink’s LMDS authorizations constitute the largest LMDS block of licenses in the country by population. The LMDS licenses in the proposed lease are clustered around highly populated areas. For example, just a single license, number WPLM397, covers all of New York City and its surrounding suburbs, for a total of 20,264,192 people.<sup>51</sup> Collectively, the LMDS licenses in the proposed lease overlay areas with approximately 282,164,664 million people (or about 91% of the U.S. population); in total, Nextlink controls 60.6% of the total nationwide

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<sup>49</sup> *Id.* at 5-6.

<sup>50</sup> See Universal Licensing System, Application for Special Temporary Authority – WJ9XJ0 – Samsung Electronics America, Inc. (application to “demonstrate 5G systems to various customers”); Monica Allevan, *Verizon to Test 5G at 28 GHz in Texas with Samsung*, FierceWirelessTech (Feb. 25, 2016), <http://www.fiercewireless.com/tech/story/verizon-test-5g-28-ghz-texas-samsung/2016-02-25>.

<sup>51</sup> Universal Licensing System, Local Multipoint Distribution Service License - WPLM397 - Nextlink Wireless, LLC.

licensed LMDS spectrum, which accounts for nearly 185 billion MHz/POP.<sup>52</sup> In addition, the 39 GHz licenses in the proposed lease overlay areas with 37,760,607 million people.<sup>53</sup> Yet Verizon fails to explain how gaining control of all this spectrum is in the public interest.

## **VI. The Transactions Would Give Verizon Control Over Key Backhaul Capacity for U.S. Mobile Communications**

While Verizon already controls a substantial amount of high-performance fiber, XO's infrastructure supports some of the technologies most crucial to the next generation of high-capacity services. As the Applicants recognize, XO's dark fiber assets are vital inputs to both backhaul and fronthaul services necessary to support the projected 1000-fold increase in mobile traffic over the next decade.<sup>54</sup> Carriers have already worked actively to complement wireless backhaul with fiber—making Verizon's acquisition of XO's fiber assets particularly significant.<sup>55</sup> Fiber backhaul also enables 5G technologies,<sup>56</sup> and Verizon's control of additional

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<sup>52</sup> See Universal Licensing System records for all LMDS licensees, as reflected by the Basic Trading Areas corresponding to each lease, based on 2010 Census population data.

<sup>53</sup> See Universal Licensing System records for Nextlink's 39 GHz licenses in the proposed lease.

<sup>54</sup> See Application at 9; Joey Jackson, *Dark Fiber Key to Future of Small cells, Backhaul*, RCRWireless News (Dec. 21, 2015), <http://www.rcrwireless.com/20151221/network-infra-structure/dark-fiber-key-to-future-of-small-cells-backhaul-tag20>.

<sup>55</sup> *2015 Mobile Wireless Report*, 30 FCC Rcd. at 14564-65 ¶ 69-70; *Study: U.S. Mobile Backhaul Demand to Grow Nearly 10x by 2016*, FierceWireless (Mar. 13, 2012), <http://www.fierce-wireless.com/story/study-us-mobile-backhaul-demand-grow-nearly-10x-2016/2012-03-13> (“Although microwave backhaul is still in the mix in terms of solutions for operators, iGR noted that fiber has rapidly become the preferred mode of backhaul transport.”).

<sup>56</sup> The Commission has recognized that one of the key technologies for 5G deployments will be advanced small cell technology, which requires significantly increased backhaul. See *Spectrum Frontiers NPRM*, 30 FCC Rcd. at 11955 ¶ 272; Sean Buckley, *Dark Fiber, Small Cells, Represent the Next Stage of the Wireless Backhaul Land Grab*, FierceTelecom (Oct. 6, 2014), <http://www.fiercetelecom.com/story/dark-fiber-small-cells-represent-next-stage-wireless-backhaul-land-grab/2014-10-06> (“In tandem with small cell deployments, there has been a call by Verizon Wireless and other wireless operators for dark fiber solutions. Dark fiber allows a wireless operator to maintain complete control over their service experience, meaning if they want to increase capacity they can do it on their own timeline.”).

fiber backhaul capacity alongside Nextlink’s spectrum will provide yet another method for Verizon to control important inputs for 5G deployment.<sup>57</sup>

Backhaul costs represent approximately 30 percent of the operating costs of operating a wireless service,<sup>58</sup> so the ability to self-supply backhaul presents a significant competitive advantage. Verizon has an extensive backhaul network, which Verizon makes available not only to its end-user-facing services, but also to other mobile carriers requiring backhaul capacity. XO, too, is a large provider of fiber backhaul capacity over its own network.<sup>59</sup> Notably, Verizon ranks third and XO ranks eighth in terms of market share in the U.S. Ethernet services market.<sup>60</sup> Verizon also leases fiber facilities to sell backhaul service outside of its own footprint. Verizon’s expansive fiber network enables it to offer competitive backhaul services to its wholesale and enterprise customers, while also using those same services to extend its own wireless network. This gives Verizon a competitive advantage and acts as a significant barrier to entry into these locations by other competing operators.<sup>61</sup>

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<sup>57</sup> See Application at 10 (“The additional cells needed to support 5G require robust and widely available backhaul capability to connect to Verizon’s core network. High performance fiber (with high bandwidth and low latency) is an important means of providing efficient backhaul; indeed, Verizon already has fiber backhaul from most of its existing macro sites.”).

<sup>58</sup> *2015 Mobile Wireless Report*, 30 FCC Rcd. at 14564 ¶ 69.

<sup>59</sup> XO Comments at 4.

<sup>60</sup> See *2015 U.S. Carrier Ethernet Leaderboard*, Vertical Systems Group (Feb. 25, 2016), <http://www.verticalsystems.com/vsglb/2015-u-s-carrier-ethernet-leaderboard/> (“Ethernet services market” includes backhaul and all other Ethernet services; provider ranking includes only retail sales and does not include wholesale sales in market share calculation).

<sup>61</sup> See *supra* Section IV.A. Verizon’s LTE network carried 87 percent of its data traffic as of Q2 2015. *2015 Mobile Wireless Report*, 30 FCC Rcd. at 14564-65 ¶ 70.

Of course, in addition to their lit fiber assets, the two companies also control significant amounts of dark fiber.<sup>62</sup> This makes the merger relevant at yet another link of the vertical backhaul chain. The merger will allow Verizon to overcharge backhaul resellers, who lease dark fiber and light it up, or withhold its augmented dark fiber capacity altogether.

But the consolidation of the two companies' fiber assets tells only half of the story. Backhaul capacity will become even more important in a 5G environment, with the multiplicity of small cells and high throughput demands.<sup>63</sup> In fact, the difficulty of identifying affordable backhaul has been a key obstacle to small cell deployment. Because of technical advances, the mmWave spectrum, whose central importance to 5G deployment has already been discussed, has become increasingly well-suited for backhaul and other fixed point-to-point uses.<sup>64</sup>

The LMDS and 39 GHz bands will therefore become increasingly attractive to mobile providers for this backhaul potential.<sup>65</sup> The characteristics of these bands also allow the relay of signals across small cells to provide both backhaul and end user access, making them an

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<sup>62</sup> See Application at 10 (“The majority of XO Communications’ fiber in each of its top 20 fiber areas is unlit, or ‘dark’, with those areas having 79 percent unlit fiber on average, including up to 96 percent unlit in Dallas.”); Sean Kinney, *Verizon Looks to Dark Fiber, Small Cells for Densification*, RCRWireless News (Sept. 10, 2015), <http://www.rcrwireless.com/20150910/carriers/verizon-looks-to-dark-fiber-small-cells-for-densification-tag17>.

<sup>63</sup> Sean Kinney, *5G Backhaul: More Capacity, Edge Intelligence*, RCRWireless News (Feb. 12, 2016), <http://www.rcrwireless.com/20160212/network-infrastructure/5g-backhaul-requirements-more-capacity-edge-intelligence-tag17>.

<sup>64</sup> See *supra* Section V.A; XO Comments at 17.

<sup>65</sup> See, e.g., *Spectrum Frontiers NPRM*, 30 FCC Rcd. at 11882 ¶ 6; Diana Goovaerts, *Verizon and T-Mobile Seek Permission to Test 5G Tech at 28 GHz*, WirelessWeek (Mar. 29, 2016), <http://www.wirelessweek.com/news/2016/03/verizon-t-mobile-seek-permission-test-5g-tech-28-ghz>.

important and high value proposition for all mobile carriers.<sup>66</sup> This will remain true even as 5G deployments emerge in the bands because the demand for broadband services only continues to increase.

Allowing Verizon to add XO's capacity to its own fiber and wireless backhaul assets could threaten the viability of emerging telecommunications providers. Verizon's increase in capacity through both its acquisition of XO's fiber network and lease of the LMDS and 39 GHz bands may also give it substantial market power, permitting it to increase the cost of backhaul for mobile carriers.

## **VII. The Transactions Would Give Verizon Control Over Important Internet Transit Capacity**

Verizon's control over XO's Internet transit capacity will further enhance Verizon's incentive and ability to implement harmful interconnection practices, harming other transit providers, edge providers, and the seamless functioning of the Internet ecosystem. Verizon is one of four large ISPs that have the power to charge Internet content companies for interconnection.<sup>67</sup> But Verizon also has market power upstream, at the next link of the Internet delivery chain—transit—and stands to augment that power by means of these transactions. Verizon's fiber network is already one of the largest in the world, with service to over 150 countries and long-haul, metro, and submarine assets that span over 800,000 route miles and support international operations.<sup>68</sup> Verizon is one of approximately 10 global Tier 1 ISPs,

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<sup>66</sup> See e.g., Sprint Corp., Comments, GN Docket No. 14-177, slides 3-4 (April 6, 2016); XO Comments at 17.

<sup>67</sup> See Netflix, Inc., Petition to Deny, MB Docket No. 14-57 at 44-45 (Aug. 27, 2014) (“Netflix Petition”).

<sup>68</sup> Verizon 10-K at 11.



alongside XO.<sup>69</sup> Tier 1 ISPs are characterized by large traffic volumes, large capacities, large customer bases, and large numbers of routes. These few providers have access to the entire, global, Internet by peering directly with every other Tier 1 network. As Tier 1 networks, each of Verizon and XO controls a crucial route between various ISPs' networks. Other ISPs like EarthLink, Suddenlink, Windstream, and Cable One must use Tier 1 ISPs to send their customers' traffic between their network service areas.

Verizon and XO also provide 100G ultra-long-haul systems for live Internet traffic, including on major U.S. backbone routes and U.S. metro networks.<sup>70</sup> XO's fiber-based IP and Ethernet network extends nationwide. It includes a network of approximately 20,000 fiber route miles and more than 5,600 owned metro fiber route miles.<sup>71</sup>

As Verizon is a terminating access network, Verizon also controls the interconnection point between transit provider networks and the broadband customer. For an Internet content provider to deliver traffic to a Verizon customer, it must work with transit providers who transport its traffic to the interconnection point and into Verizon's network.

Large ISPs like Verizon can leverage their power over interconnection in several ways. First, Verizon can "de-peer" transit providers or content delivery networks that they interconnect with, forcing them to pay Verizon to provide transit service for that provider's traffic. Second,

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<sup>69</sup> Verizon Business (formerly UUNet) is Verizon's Tier 1 ISP division. See *Who Provides Internet Service for My Internet Service Provider*, How-To Geek, <http://www.howtogeek.com/123599/who-provides-internet-service-for-my-internet-service-provider/> (last visited May 2, 2016); see also Mark Winther, *Tier 1 ISPs: What They Are and Why They Are Important*, IDC, at 4 (May 2006), [https://www.us.ntt.net/downloads/papers/IDC\\_Tier1\\_ISPs.pdf](https://www.us.ntt.net/downloads/papers/IDC_Tier1_ISPs.pdf) (reporting nine tier 1 ISPs).

<sup>70</sup> See Verizon 10-K at 11; *IP Transit: Superior Connectivity for Your Bandwidth-Intensive IP Traffic*, XO Communications, <http://www.xo.com/network-services/internet-access/ip-transit/> (last visited May 2, 2016).

<sup>71</sup> Application at 3.

Verizon can allow transit providers' routes into its network to congest, forcing edge providers seeking to deliver traffic to Verizon's network to essentially pay an entry toll.<sup>72</sup>

One way to avoid such charges has been through the purchase of transit capacity from transit providers, including XO.<sup>73</sup> The market for transit services is already concentrated among very few providers who can support high-capacity, long-distance data transport directly to all networks on the global Internet. Transit providers like XO, Level 3, and Cogent are some of the few independent providers in this market—companies that are not also terminating access ISPs like Verizon. These independent providers act as an important counterbalance to the terminating access ISPs who seek to demand fees for allowing traffic to enter into their networks.<sup>74</sup> Verizon's acquisition of XO will eliminate an independent competitor in the transit marketplace and enhance Verizon's power as a large, terminating access network.

The antitrust agencies have already recognized the harms of reducing competition in the transit market. In its Complaint in *WorldCom/Sprint*, DOJ found that consolidating control over one of the largest Tier 1 Internet backbone providers would remove a “competitive constraint” in an “already concentrated market.”<sup>75</sup> Removal of this constraint would in turn provide the combined entity with the incentive and ability to charge higher prices and provide lower quality

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<sup>72</sup> See Level 3 Communications, LLC, Comments, GN Docket No. 14-28, at 11 (July 15, 2014).

<sup>73</sup> See Netflix Petition at 56.

<sup>74</sup> See Netflix Petition at 70 (explaining how large terminating access networks have the power to de-peer with, and demand payment from, a transit provider or CDN to prevent delivery of content from edge providers).

<sup>75</sup> See Complaint, *United States v. WorldCom, Inc. and Sprint Corp.*, No. 1:00-cv-00368, at 2, 13 (June 26, 2000) (“*DOJ WorldCom/Sprint Complaint*”) (bringing action to enjoin WorldCom, Inc.'s acquisition of Sprint Corporation because it would give the combined entity an even greater “commanding position” in the control of backbone networks for which “[t]here are no substitutes for this connectivity sufficiently close to defeat a small but significant nontransitory price increase”).

services for customers. By raising its rivals' costs and creating advantages for its own network, the dominant network may be able to "tip" the market—preventing rivals from remaining competitive, denying market entry, and even forcing rivals to exit the market.<sup>76</sup>

Verizon has the incentive and ability to engage in such market "tipping" conduct. Absent competitive checks on ISPs' power, Verizon is likely to continue increasing its demands for interconnection fees. This is particularly true given the significant and continuing growth of online video distributors, which threaten Verizon's own video services. In its own highly publicized dispute with Netflix, Verizon strategically shifted blame away from its own network practices and onto Netflix, protecting the reputation of its residential broadband service.<sup>77</sup> XO is not a provider of consumer Internet services, and so does not have an incentive to favor its own consumer service over that of others. Verizon is, and does. Thus, Verizon could, and likely would, export its incentives to foreclose competing content providers from interconnection to XO's networks, increasing anticompetitive harms.

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<sup>76</sup> "When a single network grows to a point at which it controls a substantial share of the total Internet end user base and its size greatly exceeds that of any other network, network externalities may cause a reversal of its previous incentives to achieve efficient interconnection arrangements with its rival networks. In this context, degrading the quality or increasing the price of interconnection . . . can create advantages for the largest network in attracting customers to its network. . . . This, in turn, enables the dominant network to further raise its rivals' costs, thereby accelerating the tipping effect. As a result of an increase in their costs, rivals may not be able to compete on a long-term basis and may exit the market." *DOJ WorldCom/Sprint Complaint* at 18.

<sup>77</sup> See e.g., Ben Popper, *The War of Words Continues: Verizon Says Netflix Is the One Causing Internet Congestion*, *The Verge* (July 10, 2014), <http://www.theverge.com/2014/7/10/5888239/verizon-netflix-congestion>; *Level 3 Proves That Verizon Is Absolutely to Blame For Netflix Congestion... Using Verizon's Own Blog Post*, *TechDirt* (July 18, 2014), <https://www.techdirt.com/articles/20140718/06533327927/level3-proves-that-verizon-is-absolutely-to-blame-netflix-congestion-using-verizons-own-data.shtml>.

### **VIII. The Transactions Would Eliminate a Competitor in the Enterprise and Wholesale Markets and the Applicants Fail to Address these Harms**

Verizon's acquisition of XO would also remove one of the top providers of high-capacity data IP services to wholesale and enterprise customers.<sup>78</sup> By endowing Verizon with control of XO's extensive fiber assets, the transaction will reduce the number of competitors in some markets from three to two, and even from two to one.

The Applicants admit that at least 15 percent of XO's fiber network is located inside Verizon's ILEC wireline footprint.<sup>79</sup> But even this figure understates the impact of the consolidation of Applicants' wireline assets for a number of reasons. First, Verizon's service areas in its remaining ILEC footprint include major metropolitan markets such as Boston, Philadelphia, Pittsburgh, Baltimore, and Washington, D.C.<sup>80</sup> Each of these hubs has a significant business presence and a high demand for Verizon's wholesale and enterprise services. XO competes directly with Verizon in these important markets,<sup>81</sup> and approval of this transaction will eliminate that competition.

Second, as the Applicants themselves assert,<sup>82</sup> a current snapshot of the standalone companies' footprints does not provide the full picture of the transaction's competitive impact.

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<sup>78</sup> See *supra* note 27.

<sup>79</sup> Application at 13; March 22 Supplement at 2.

<sup>80</sup> See March 22 Supplement at 1 & Exhibit 1.

<sup>81</sup> Compare March 22 Supplement, Exhibit 1 (listing areas in Verizon's footprint in which XO has on-net buildings) and Application, Attachment 2 (XO Communications Network Map) with *Better Matters: Coverage*, Verizon, <http://www.verizonwireless.com/landingpages/better-matters/> (last visited May 2, 2016) (Verizon coverage map).

<sup>82</sup> Application at 13-14 (“[C]ompetition in a dynamic marketplace ‘is more appropriately analyzed in view of larger trends in the marketplace, rather than exclusively through the snapshot data that may quickly and predictably be rendered obsolete as th[e] market continues to evolve.’”) (citation omitted).

The Applicants state that the transaction will give Verizon access to 4,487 XO on-net buildings, approximately 15 percent of which are located in Verizon’s ILEC footprint.<sup>83</sup> But this number only accounts for XO’s on-net or “lit” buildings—the majority of XO’s fiber in each of its top 20 fiber areas is unlit, or “dark.”<sup>84</sup> Given XO’s expansive unlit footprint, the Applicants’ brief discussion likely underestimates dramatically the true overlap of the standalone companies by a significant margin. The Applicants explicitly define a provider with dark fiber as “a potential competitor that could enter the market,” meaning Verizon’s acquisition of these dark XO assets eliminates a potential competitor both inside and outside of Verizon’s footprint.<sup>85</sup> As noted above, Verizon kills two birds with the same stone: not only does it lock in access to these on-net buildings; Verizon’s wireless business can also piggyback exclusively on that fiber to lower the costs of consumer-facing service around those locations. But this twofold benefit for Verizon is a double whammy for its competitors, which may be foreclosed from serving both markets at or from this location.

Third, the Applicants do not explain the full scope of Verizon’s expansion that the transaction would facilitate. The application states that the transaction will expand Verizon’s on-net building inventory by over 2,500 buildings.<sup>86</sup> However, this number only accounts for XO’s on-net holdings in the “twenty densest counties” XO serves.<sup>87</sup> XO’s fiber network serves dozens

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<sup>83</sup> March 22 Supplement at 2.

<sup>84</sup> XO’s top 20 fiber areas have 79 percent unlit fiber on average, including up to 96 percent unlit in Dallas. *See* Application at 10. XO’s dark fiber includes fiber into buildings where XO has or had customers, as well as fiber rings in the market it services. March 22 Supplement at 3.

<sup>85</sup> March 22 Supplement at 3.

<sup>86</sup> Application at 7.

<sup>87</sup> March 22 Supplement at 3.

of other counties through the country, as the Applicants' own service map shows.<sup>88</sup> The Applicants must provide a full, detailed description of the areas that Verizon's footprint would cover post-transaction. In its comments in the *Spectrum Frontiers NPRM*, XO indicated that it "has a planned capital investment of approximately \$500 million over the next several years to bring more buildings on-net in metro areas," which will significantly increase the overlap between the two footprints.<sup>89</sup>

Fourth, the Application barely discusses the transaction's impact on the special access market. Verizon already provides special access service by selling wholesale circuits to other voice and data service providers. These services cover at least 3.4 million voice connections, 1.6 million Internet subscribers, and 1.2 million video customers.<sup>90</sup> Verizon's revenues from them are approximately \$10.5 billion.<sup>91</sup> By acquiring XO's high-capacity fiber facilities, Verizon will gain even more traction in the special access area. Verizon asserts that the transaction will enable it to better compete with cable providers and other companies that have already made high-capacity services a dynamic marketplace.<sup>92</sup> But Verizon already enjoys a significant advantage over CLECs and non-traditional providers in the special access market.<sup>93</sup> In fact, the Commission has recognized that companies like Verizon may have market power for those services, and has initiated a proceeding to determine whether regulatory intervention is necessary

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<sup>88</sup> See Application, Attachment 2.

<sup>89</sup> XO Comments at 4.

<sup>90</sup> Verizon 10-K at 8.

<sup>91</sup> *Id.*

<sup>92</sup> Application at 14.

<sup>93</sup> See, e.g., Michael Mooney, *Special What? Why You Should Care About The FCC's Special Access Investigation*, Beyond Bandwidth: Level 3 Communications Blog (Oct. 19, 2015), <http://blog.level3.com/demand-lock-ups-and-access-reform/special-what-why-you-should-care-about-the-fccs-special-access-investigation/>.

to promote competition in the special access market.<sup>94</sup> Given the Commission’s already heightened concerns, the Applicants must provide complete information on their special access service infrastructure pre- and post-transaction.

Finally, as explained above, the consolidation would have national effects regardless of the extent of geographic overlap for those enterprise customers needing a national footprint. In short, Verizon should not be permitted to acquire one of its largest competitors in the wholesale and enterprise markets.<sup>95</sup>

## **IX. Conclusion**

For the foregoing reasons, the Commission should set both applications for a hearing, and deny them.

Respectfully Submitted,

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/s/

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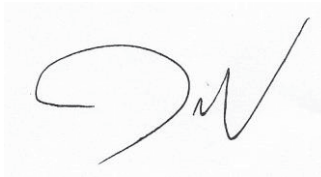
<sup>94</sup> See Sallet Remarks at 7-8 (naming its proceeding on the special access market for dedicated business data services among the top items on Chairman Wheeler’s agenda for 2016). Verizon has already sought to exercise its dominance in the special access market by proposing a regulatory scheme that would hinder new, facilities-based entrants from competing with Verizon and other incumbents. See Daniel Frankel, *NCTA, ACA Take Down Verizon-INCOMPAS Special Access Proposal*, FierceCable (Apr. 8, 2016), <http://www.fiercecable.com/story/ncta-aca-take-down-verizon-incompas-special-access-proposal/2016-04-08>.

<sup>95</sup> See XO Comments at 4 (“With its national competitive local exchange carrier facilities, XO operates one of the largest networks in the United States.”).

## DECLARATION

The foregoing has been prepared using facts of which I have personal knowledge or upon information provided to me. I declare under penalty of perjury that the foregoing, except for those facts for which official notice may be taken, is true and correct to the best of my information, knowledge and belief.

Executed on May 3, 2016

A handwritten signature in black ink, appearing to be 'JH Blum', written on a light-colored background.

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Jeffrey H. Blum  
Senior Vice President & Deputy General Counsel  
**DISH Network Corporation**