Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Applications of XO Holdings and Verizon Communications Inc. For Consent to Transfer Control of Licenses and Authorizations	)	WC Docket No. 16-70
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MEMORANDUM OPINION AND ORDER

Adopted: November 16, 2016 **Released: November 16, 2016**

By the Chief, Wireline Competition Bureau; Chief, International Bureau; and Chief, Wireless Telecommunications Bureau:

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I. INTRODUCTION

1. Verizon Communications Inc. (Verizon) and XO Holdings (collectively, Applicants) filed a series of applications pursuant to sections 214 and 310(d) of the Communications Act of 1934, as amended (Act), and sections 63.04, 63.18, and 63.24 of the Commission's rules,[1] seeking approval to transfer control of various licenses and authorizations[2] held by XO Communications, LLC (XO) from XO Holdings to Verizon in connection with an equity purchase transaction whereby Verizon will acquire XO (the Transaction).[3] We find that approval of the Transaction will serve the public interest, convenience, and necessity and hereby grant the Applications.

2. On April 12, 2016, the Wireline Competition Bureau (WCB), Wireless Telecommunications Bureau (WTB), and International Bureau (IB) released a public notice accepting the Applications for filing and establishing a pleading cycle for public comments.[4] Eight parties filed in response to the Public Notice, including three petitions to deny the Transaction.[5] On June 22, 2016, after the public comment period closed, we requested additional information and data from the Applicants to conduct our review.[6]

3. We carefully and thoroughly reviewed the record, including the substantial material submitted by the Applicants pursuant to our requests, which are subject to the *Protective Order* issued in

[1] 47 U.S.C. §§ 214, 310(d); 47 CFR §§ 63.04, 63.18, 63.24. Consolidated Applications to Transfer Control of Domestic and International Section 214 Authorizations, WC Docket No. 16-70 (filed Mar. 4, 2016) (Applications). On March 22, 2016, Applicants supplied additional information about their Applications in response to questions from the staff of the Commission's Wireline Competition Bureau. *See* Letter from Bryan Tramont, Adam Krinsky, and Jennifer Kostyu, Counsel to Verizon, and Thomas Cohen and Edward Yorkgitis, Jr., Counsel to XO Holdings, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70 (filed Mar. 22, 2016) (March 22 Supplement).

[2] Applicants submit that, in addition to XO's domestic and international section 214 authorizations, XO holds 53 common carrier fixed point-to-point microwave licenses and one millimeter wave 70/80/90 GHz service license. *See* Applications, Exh. 1, Description of the Parties, Description of the Transaction, Public Interest Statement, and Administrative Matters, at Attach. 1, FCC Licenses (Public Interest Statement).

[3] Public Interest Statement at 4. *See also* Verizon Updated Response to June 22, 2016 Information and Data Request, WC Docket No. 16-70, transmitted by letter from Katherine Saunders, Associate General Counsel, Verizon, to Marlene Dortch, Secretary, FCC, at Attach. Equity Purchase Agreement Dated as of February 20, 2016 (filed Aug. 23, 2016) (Applicants' Feb. 20, 2016 Equity Purchase Agreement).

[4] *Applications Filed For The Transfer Of Control Of XO Communications, LLC To Verizon Communications Inc.*, Public Notice, 31 FCC Rcd 3514 (WCB, WTB, IB Apr. 12, 2016).

[5] *See* DISH Petition, INCOMPAS Petition, and Public Knowledge Petition; Windstream Comments, CCA Comments, OTI Comments, Transbeam Comments, and Catron County (NM) Astronomical Association Comments; and DISH Reply and Public Knowledge Reply.

[6] *See* Letter from Madeleine Findley, Deputy Chief, WCB, FCC, to Bryan Tramont, Adam Krinsky, and Jennifer Kostyu, Counsel to Verizon, and Thomas Cohen and Edward Yorkgitis, Jr., Counsel to XO Holdings, WC Docket No. 16-70 (June 22, 2016) (June 22, 2016 Information and Data Request).

this proceeding.[7] We conclude that both the benefits and the harms of the Transaction are relatively limited, but that, on balance, the potential public interest benefits outweigh the potential public interest harms.

II. BACKGROUND

A. Description of the Applicants

1. Verizon Communications Inc.

4. Verizon, a publicly-traded Delaware corporation, is a holding company whose operating subsidiaries provide communications services to consumers, businesses, government customers, and other carriers throughout the United States and internationally.[8] Verizon's wireline business provides voice, data, and video communications products and enhanced services, including broadband video and data, corporate networking solutions, data center and cloud services, security and managed network services, and local and long distance voice services.[9] Verizon's Enterprise Solutions division serves businesses and enterprise customers nationwide and internationally.[10] Verizon's Partner Solutions division serves wholesale carrier customers.[11] Verizon subsidiaries also include incumbent local exchange carrier (LEC) entities in eight states in the Northeast corridor and the District of Columbia.[12] Verizon's wireless division, Verizon Wireless, provides nationwide voice and data services across a wireless network comprised of 4G LTE and 3G EVDO networks.[13]

2. XO Communications, LLC

5. XO, a Delaware limited liability company, is a wholly-owned subsidiary of XO Holdings, a Delaware general partnership.[14] XO Holdings, through various intermediate holdings companies, is wholly owned and controlled by Carl C. Icahn.[15] Applicants state that XO, through its operating subsidiaries, provides communication services in all 50 states and the District of Columbia. Applicants further state that XO controls and operates an IP and Ethernet network that includes an inter-city network of approximately 20,000 fiber route miles and more than 5,600 owned metro fiber route

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[7] The Commission adopted a *Protective Order* to (1) limit access to proprietary or confidential information filed in this proceeding, and (2) more strictly limit access to certain particularly competitive sensitive information. *See XO Holdings and Verizon Communications Inc. Consolidated Applications for Consent to Transfer Control of Domestic and International Authorizations Pursuant to Section 214 of the Communications Act, As Amended*, Protective Order, 31 FCC Rcd 5318 (WCB May 9, 2016) (*Protective Order*). In this Order, Highly Confidential Information, as defined in the *Protective Order*, will be marked by the terms "**[BEGIN HIGHLY CONF. INFO.]**" and "**[END HIGHLY CONF. INFO.]**", and Confidential Information, as defined in the *Protective Order*, will be marked by the terms "**[BEGIN CONF. INFO.]**" and "**[END CONF. INFO.]**". Such information will be redacted from the publicly available version of this Order. The unredacted version will be available upon request to persons qualified to view it under the *Protective Order*.

[8] Public Interest Statement at 2. According to the Applicants, Verizon is a publicly-traded and widely-held company, and no person or entity holds a direct or indirect ten percent or greater ownership interest in Verizon.

[9] *Id*.

[10] *Id*.

[11] *See* Verizon Response to June 22, 2016 Information and Data Request, transmitted by letter from Katherine Saunders, Associate General Counsel, Verizon, to Marlene Dortch, Secretary, FCC, at 2 (filed July 7, 2016) (Verizon July 7, 2016 Response to Information Request).

[12] Public Interest Statement at 2.

[13] *Id.*

[14] *Id.* at 2-3.

[15] *Id.* at 3.

miles.[16] XO provides local and long distance voice, Internet access, cloud connectivity, security, private line, Ethernet, and other private data and network transport services for small and medium-sized companies, enterprises, national and government customers, and other carriers, both on a managed and wholesale basis.[17] XO does not provide mass-market retail services to consumers.[18]

B. Description of the Transaction

6. On February 20, 2016, Verizon and XO Holdings entered into an agreement pursuant to which XO Holdings will sell all of its interests in XO to Verizon.[19] Upon completion of the Transaction, XO will become a wholly-owned, indirect subsidiary of Verizon. XO's operating subsidiaries will remain subsidiaries of XO. At the same time the Applicants agreed to enter into the Transaction, XO Holdings, through its Nextlink Wireless, LLC (Nextlink) subsidiary, agreed to lease spectrum to Cellco Partnership d/b/a Verizon Wireless (Verizon Wireless) associated with certain wireless local multipoint distribution service (LMDS) and 39 GHz licenses held by Nextlink.[20] WTB sought comments on the Lease Application on April 12, 2016, and gave its consent on July 25, 2016.[21]

III. STANDARD OF REVIEW AND PUBLIC INTEREST FRAMEWORK

7. Pursuant to sections 214(a) and 310(d) of the Act, we must determine whether the Applications will serve the public interest, convenience, and necessity.[22] In making this determination, we first assess whether the proposed Transaction complies with the specific provisions of the Act,[23] other applicable statutes, and the Commission's rules.[24] If the Transaction does not violate a statute or rule, then we consider whether it could result in public interest harms by substantially frustrating or impairing the objectives or implementation of the Act or related statutes. We then employ a balancing test that weighs any potential public interest harms of the proposed Transaction against any potential public interest benefits. The Applicants bear the burden of proving, by a preponderance of the evidence, that the

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[16] *Id.* at 3.

[17] *Id*. at 2-3.

[18] *Id.* at 3.

[19] *See* Applicants' Feb. 20, 2016 Equity Purchase Agreement.

[20] *See* Application of Nextlink Wireless, LLC and Verizon Wireless for Long-term *de facto* Transfer Lease, File No. 0007162285, Exh. 1, Description of Transaction and Public Interest Statement, at 1 n.1 (filed Mar. 2, 2016) (Lease Application). XO Holdings also agreed to provide Verizon Wireless an option to acquire control of the Nextlink Wireless licenses associated with the leased spectrum. *Id*. Verizon Wireless has not exercised the purchase option, so no application associated with that option has been filed with the Commission.

[21] *Application of Cellco Partnership d/b/a Verizon Wireless and Nextlink Wireless, LLC For Consent to Long-Term De Facto Transfer Spectrum Leasing Arrangement,* ULS File No. 0007162285, Memorandum Opinion and Order, DA 16-838 (WTB July 25, 2016) (*Verizon-Nextlink Leasing Order*) (noting that consent to the Lease Application neither precluded nor limited any analysis, action, or remedy that may be found appropriate with respect to the Applications, nor did it preclude or limit the discretion to consolidate review of other transaction applications in the future that are deemed sufficiently related as to make such consolidated consideration appropriate).

[22] 47 U.S.C. §§ 214(a), 310(d).

[23] Section 310(d) of the Act requires that we consider applications for the transfer of Title III licenses under the same standard as if the proposed transferee were applying for licenses directly under section 308 of the Act. 47 U.S.C. § 310(d).

[24] *See Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership For Consent to Assign or Transfer Control of Licenses and Authorizations,* Memorandum Opinion and Order, 31 FCC Rcd 6327, 6336, para. 26 n.51 (2016) (*Charter-TWC Order*); *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, 9139, para. 18 n.35 (2015) *(AT&T-DIRECTV Order); AT&T Inc. and BellSouth Corporation Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5672, para. 19 (2007) (*AT&T-BellSouth Order*).

proposed Transaction, on balance, serves the public interest. If we are unable to find that the proposed Transaction serves the public interest for any reason, or if the record presents a substantial and material question of fact, then we must designate the Applications for hearing.[25]

8. Our public interest evaluation necessarily encompasses the "broad aims of the Communications Act," which include, among other things, a deeply rooted preference for preserving and enhancing competition in relevant markets, accelerating private sector deployment of advanced services, promoting a diversity of information sources and services to the public, and generally managing the spectrum in the public interest.[26] Our public interest analysis also entails assessing whether the proposed Transaction would affect the quality of communications services or result in the provision of new or additional services to consumers. In conducting this analysis, we may consider technological and market changes, and the nature, complexity, and speed of change of, as well as trends within, the communications industry.[27]

9. Our competitive analysis, which forms an important part of the public interest evaluation, is informed by, but not limited to, traditional antitrust principles.[28] The Commission and the U.S. Department of Justice (DOJ) each has independent authority to examine the competitive impacts of proposed communications mergers and transactions involving transfers of Commission licenses, but the standards governing the Commission's competitive review differ from those applied by the DOJ. The Commission, like the DOJ, considers how a transaction would affect competition by defining a relevant market, looking at the market power of incumbent competitors, and analyzing barriers to entry, potential competition, and the efficiencies, if any, that may result from the transaction.[29]

10. The DOJ, however, reviews telecommunications mergers only pursuant to section 7 of the Clayton Act, and if it sues to enjoin a merger, it must demonstrate to a court that the merger may substantially lessen competition or tend to create a monopoly.[30] The DOJ review is consequently limited solely to an examination of the competitive effects of the acquisition, without reference to diversity, localism, or other public interest considerations.[31] Moreover, the Commission's competitive analysis under the public interest standard is broader. For example, the Commission considers whether a transaction would enhance, rather than merely preserve, existing competition, and often takes a more expansive view of potential and future competition in analyzing that issue.[32]

[25] 47 U.S.C. § 309(e); *see Charter-TWC Order*, 31 FCC Rcd at 6336-37, para. 26. The requirement in section 309(e) applies only to those applications to which Title III of the Act applies. We are not required to designate for hearing applications for the transfer or assignment of Title II authorizations when we are unable to find that the public interest would be served by granting the applications (*see ITT World Communications, Inc. v. FCC*, 595 F.2d 897, 901 (2d Cir. 1979)), but may do so if we find that a hearing would be in the public interest.

[26] *See Charter-TWC Order,* 31 FCC Rcd at 6337, para. 27*; AT&T-DIRECTV Order,* 30 FCC Rcd at 9140, para. 19; *In the Matter of Applications Filed by Qwest Communications International Inc. and CenturyTel, Inc. D/B/A CenturyLink for Consent to Transfer Control*, Memorandum Opinion and Order, 26 FCC Rcd 4194, 4199, para. 8 (2011) (*Qwest-CenturyLink Order*).

[27] *See Charter-TWC Order,* 31 FCC Rcd at 6337, para. 27*; AT&T-DIRECTV Order,* 30 FCC Rcd at 9140, para. 19; *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para. 8.

[28] *See Charter-TWC Order*, 31 FCC Rcd at 6337, para. 28; *AT&T-DIRECTV* Order, 30 FCC Rcd at 9140-41, para. 20; *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para. 9.

[29] *See Charter-TWC Order*, 31 FCC Rcd at 6337-38, para. 28.

[30] 15 U.S.C. § 18; *see Charter-TWC Order*, 31 FCC Rcd at 6338, para. 29. As of November 13, 2016, the DOJ completed its review of the Transaction and determined not to take any enforcement action.

[31] *See Charter-TWC Order*, 31 FCC Rcd at 6338, para. 29.

[32] *See Charter-TWC Order*, 31 FCC Rcd at 6338, para. 29. *Cf. Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 415 (2004) ("The 1996 Act is, in an important respect, much more ambitious

(continued….)

11. Finally, our public interest authority enables us, where appropriate, to impose and enforce transaction-related conditions to ensure that the public interest is served by a transaction.[33] Specifically, section 303(r) of the Act authorizes the Commission to prescribe restrictions or conditions not inconsistent with law that may be necessary to carry out the provisions of the Act.[34] Similarly, section 214(c) of the Act authorizes the Commission to attach to the approval certificate "such terms and conditions as in its judgment the public convenience and necessity may require."[35] Our extensive regulatory and enforcement experience enables us, under this public interest authority, to impose and enforce conditions to ensure that a transaction will yield net public interest benefits.[36] In exercising this authority to carry out our responsibilities under the Act and related statutes, we have imposed conditions to confirm specific benefits or remedy harms likely to arise from transactions.[37]

IV. QUALIFICATIONS OF APPLICANTS AND COMPLIANCE WITH COMMUNICATIONS ACT AND FCC RULES AND POLICIES

12. Section 310(d) of the Act requires that we make a determination as to whether the Applicants have the requisite qualifications to hold Commission licenses.[38] Among the factors the Commission considers in its public interest review is whether the applicant for a license has the requisite "citizenship, character, financial, technical, and other qualifications."[39] Therefore, as a threshold matter, the Commission must determine whether the applicants to a proposed transaction meet the requisite qualification requirements to hold and transfer licenses under section 310(d) and the Commission's rules.[40]

13. No party has raised an issue with respect to the basic qualifications of either Verizon or XO. The Commission generally does not reevaluate the qualifications of transferors unless issues related

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than the antitrust laws. It attempts '*to eliminate the monopolies* enjoyed by the inheritors of AT&T's local franchises.' Section 2 of the Sherman Act, by contrast, seeks merely to prevent *unlawful monopolization*. It would be a serious mistake to conflate the two goals.") (emphasis in original) (quoting *Verizon Communications v. FCC*, 535 U.S. 467, 476 (2002) (internal citations omitted)).

[33] *See Charter-TWC Order*, 31 FCC Rcd at 6338, para. 30; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22; *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para. 10; *Applications filed by Altice N.V. and Cablevision Systems Corporation to Transfer Control of Authorizations from Cablevision Systems Corporation to Altice N.V.*, Memorandum Opinion and Order, 31 FCC Rcd 4365, 4369, para. 11 (WCB, IB, MB, WTB 2016) (*Altice-Cablevision Order*).

[34] 47 U.S.C. § 303(r); *see Charter-TWC Order*, 31 FCC Rcd at 6338, para. 30; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22; *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para. 10; *United States v. Southwestern Cable Co*., 392 U.S. 157, 178 (1968) (holding that section 303(r) permits the Commission to order a cable company not to carry broadcast signal beyond station's primary market); *United Video, Inc. v. FCC*, 890 F.2d 1173, 1182-83 (D.C. Cir. 1989) (affirming syndicated exclusivity rules adopted pursuant to section 303(r) authority).

[35] 47 U.S.C. § 214(c); *see Charter-TWC Order*, 31 FCC Rcd at 6338-39, para. 30; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22; *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para. 10.

[36] *See Charter-TWC Order*, 31 FCC Rcd at 6339, para. 30; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9141, para. 22 (and cases cited therein); *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para. 10.

[37] *Id*.

[38] 47 U.S.C. § 310(d).

[39] 47 U.S.C. §§ 308, 310(d); *see also Charter-TWC Order*, 31 FCC Rcd at 6339, para. 31; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9142, para. 24; *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para.11; *AT&T-BellSouth Order*, 22 FCC Rcd at 5756, para. 191; *SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18290, 18379, para. 171 (2005) (*SBC-AT&T Order*).

[40] *See Charter-TWC Order*, 31 FCC Rcd at 6339, para. 31; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9142, para. 24; *Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para.11; *AT&T-BellSouth Order*, 22 FCC Rcd at 5756, para. 191.

to basic qualifications have been sufficiently raised in petitions to warrant designation for hearing.[41] We find that there is no reason to reevaluate the requisite citizenship, character, financial, technical, or other basic qualifications of XO under the Act and our rules, regulations, and policies. In addition, no parties have alleged that Verizon lacks the requisite qualifications. The Commission previously found Verizon to be qualified to hold Commission authorizations and licenses,[42] and we find that Verizon continues to have the requisite citizenship, character, financial, technical, and other basic qualifications under the Act and our rules, regulations, and policies.

14. As noted above, the proposed Transaction must be in compliance with the Act, other applicable statutes, and the Commission's rules before we can find that it is in the public interest.[43] We find that the proposed Transaction will not violate any statutory provision or Commission rule.

V. POTENTIAL PUBLIC INTEREST HARMS

15. In this section, we consider the potential public interest harms arising from the proposed Transaction. Commenters largely claim competitive harm due to the loss of XO as a competitive provider of: (1) business data services (BDS)[44] and other commercial services, including Ethernet-over-Copper (EoC),[45] both inside and outside Verizon's incumbent LEC region, and (2) Internet backbone/transit services. We evaluate the Transaction in light of the relevant services XO and Verizon provide and the geographic locations where these services are provided. Based on the record evidence, as explained below, we find that the Transaction is unlikely to have material adverse competitive effects for any of these services in any geographic area where Applicants operate.

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[41] *See, e.g., Charter-TWC Order*, 31 FCC Rcd at 6339, para. 32; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9142, para. 25; *Applications of SoftBank, Starburst II, Inc., Sprint Nextel Corporation, and Clearwire Corporation*, Petitions for Reconsideration of Applications of Clearwire Corporation for Pro Forma Transfer of Control, 28 FCC Rcd 9642, 9653, para. 27 (2013).

[42] *See, e.g., Applications of Atlantic Tele-Network, Inc. and Cellco Partnership d/b/a Verizon Wireless for Consent to Assign or Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, 25 FCC Rcd 3763, 3777, para. 26 & nn.108-09 (2008); *SpectrumCo LLC and Cox TMI, LLC for Consent To Assign AWS-1 Licenses*, Memorandum Opinion and Order, 27 FCC Rcd 10698, 10714, para. 17 (2012).

[43] *See, e.g., Charter-TWC Order*, 31 FCC Rcd at 6339, para. 33; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9154, para. 52.

[44] BDS as used in this Order refers to business data services, which are defined as providing "dedicated point-to-point transmission of data at certain guaranteed speeds and service levels using high-capacity connections." *Business Data Services in an Internet Protocol Environment et al.*, Tariff Investigation Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 4723, 4728, para. 12 (2016) (*BDS Tariff Order and FNPRM*). Prior to the adoption of the *BDS Tariff Order and FNPRM*, these services were referred to as "special access." *Id.* at 4725, para. 1. BDS includes, *inter alia*, legacy TDM DS1s and DS3s, packet-based Ethernet Private Line, Dedicated Internet Access and LAN, and backhaul services for wireless carriers. *Id.* at 4725, 4743-44, paras. 5, 45-48. By using this definition, we make no finding as to whether BDS constitutes a relevant antitrust market for the purpose of analyzing whether this Transaction is in the public interest.

[45] Commenters in this proceeding often use the term "BDS" to refer generally to all the services offered by the Applicants for which commenters raise competitive harm concerns. Because certain of these services may not or do not fall within the definition of BDS as we define that term for purposes of this proceeding, and because we must address all concerns raised by commenters, we address "other commercial services" to account for this. More specifically, we do so: (1) to consider commenters' heightened concerns relating to the loss of XO's EoC service – a service that might not be considered BDS due to the type of performance and service level agreements that XO offers for its EoC service that may differ from higher level performance guarantees identified by the Commission as an inherent part of BDS (*see* Letter from Bryan Tramont and Adam Krinsky, Counsels to Verizon, and Thomas W. Cohen, Counsel to XO Holdings, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-70, at n.2 (filed Oct. 14, 2016) (XO/Verizon Oct. 14, 2016 *Ex Parte* Letter)); and (2) to address other concerns raised by commenters, such as the potential for the Transaction to diminish competitive wireless carriers' access to numbering resources. *See* CCA Comments at 2-4.

16. The Commission has stated that a transaction is considered to be horizontal when the parties to the transaction compete as providers in the same locations.[46] Because Verizon and XO compete to provide some services in geographic areas that overlap, we must consider the horizontal effects of the Transaction and we do so below. To the extent applicable, we also consider potential vertical harms resulting from the Transaction. Some commenters claim the Transaction may have adverse vertical effects, arguing that Verizon as a provider of telecommunications services to end users will have a greater ability to raise rival competitors' wholesale BDS input prices as a result of the loss of XO as a competitive wholesale provider of certain of these inputs.[47] We consider these vertical concerns below, but find them unfounded. In spite of commenters' claims that XO has some price-constraining effect in the market for wholesale BDS services, the record reflects that the overwhelming majority of XO's services are provided over the same incumbent LEC-leased wholesale inputs that are available to other competitive LECs.[48] To the extent commenters' concerns are focused more on Verizon's non-transaction specific practices with respect to wholesale BDS offerings industry wide, the Commission has a separate rulemaking proceeding concerning BDS generally.[49]

A. Loss of XO as a Competitive Provider of Business Data Services and Other Commercial Services

17. Based on our analysis, we first find that Verizon's acquisition of XO within Verizon's incumbent LEC territory will have a *de minimis* impact on competition in the provision of BDS. Next, we find that the Transaction fails to harm BDS competition outside of Verizon's incumbent LEC territory. Finally, we find that the Transaction will not result in any transaction-specific competitive harm from the loss of XO as an independent provider of EoC and other commercial services or as an alleged "maverick" among competitive LECs.[50]

18. We evaluate the competitive effects of Verizon's acquisition of XO with respect to each Applicant's position as a facilities-based BDS provider.[51] Facilities-based or "Type I" BDS[52] have long

[46] *See Applications Filed for the Transfer of Control of tw telecom inc. to Level 3 Communications, Inc.*, Memorandum Opinion and Order, 29 FCC Rcd 12842, 12848, para. 16 (WCB, IB 2014) (*Level 3-tw telecom Order*) (citing *AT&T-BellSouth Order*, 22 FCC Rcd at 5675, para. 23 & n.82); *see also Qwest-CenturyLink Order*, 26 FCC Rcd at 4201, para. 13 & n.50.

[47] *See* Windstream Comments at 4, 11-12; DISH Petition at 11-12.

[48] *See infra* paras. 20, 32 & notes 66, 102.

[49] *See BDS Tariff Order and FNPRM*, 31 FCC Rcd at 4761-90, paras. 86-158 (addressing all-or-nothing, short-fall penalties and early termination provisions in incumbent LEC BDS offerings). We therefore decline to adopt the conditions proposed by Windstream and INCOMPAS regarding shortfall liability and early termination penalties. *See* Windstream Comments at 25-28; Letter from Thomas Jones and Mia Guizzetti Hayes, Counsel for INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-70, at 2 (filed Nov. 11, 2016) (INCOMPAS Nov. 11, 2016 *Ex Parte* Letter). In addition, Windstream's concern that "Verizon must reform its worst-in-class practices of charging special construction when it can leverage existing infrastructure or has its own foreseeable uses for any new network infrastructure being constructed" is an issue that has been raised in the BDS proceeding, and it is not specific to the Transaction. *See* Windstream Comments at 4*; BDS Tariff Order and FNPRM*, 31 FCC Rcd at 4884, para. 432 (asking for comments on ensuring that "carriers are not permitted to increase prices . . . by imposing unreasonable charges on related services, such as special construction"). We therefore decline to adopt the separate conditions proposed by Windstream and INCOMPAS concerning special construction charges. *See* Windstream Comments at 21-25; INCOMPAS Nov. 11, 2016 *Ex Parte* Letter at 3.

[50] *See* Public Knowledge Reply at 4; *see also* INCOMPAS Petition at 20.

[51] *See Qwest-CenturyLink Order*, 26 FCC Rcd at 4202, para. 16 (explaining that the competitive harm analysis focuses on overlap of owned last-mile connections offered wholly over a carrier's own facilities); *see also Wavecom Solutions Corporation and Hawaiian Telecom, Inc., Applications for Consent to Transfer of Control*, Memorandum Opinion and Order and Declaratory Ruling, 27 FCC Rcd 16081, 16087, para. 13 (WCB 2012) (*Hawaiian Telecom Order*).

been the relevant services to consider in determining potential competitive harm arising from transactions such as this involving the combination of an incumbent LEC and a facilities-based competitive LEC.[53] Based upon our precedent, we also evaluate potential harms from the Transaction with respect to overlapping customer building locations.[54] Accordingly, we must carefully gauge the potential for harmful transaction-specific competitive effects where XO and Verizon both compete to provide BDS to the same locations over their own wireline facilities.

19. *Background*. XO and Verizon each provides BDS and other commercial services to small and medium-sized businesses, large enterprises, national and government customers, and other carriers on a wholesale and managed basis.[55] XO operates as a competitive LEC nationwide, providing service over its own on-net facilities and through leased facilities and services obtained from incumbent LECs and other competitive providers.[56] Verizon offers its services in-region as both an incumbent LEC and a competitive LEC,[57] while outside its incumbent LEC region, Verizon operates as a competitive LEC. Documentary evidence reflects that for the 14-month period prior to the filing of the Applications, Verizon identified XO as its primary competitor for only **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**[58] Similarly,

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[52] The Commission has previously found that many purchasers of wholesale special access services view Type I services as substantially superior to Type II services that are provided over a combination of the carrier's own facilities and the BDS of another carrier, because of differences in performance, reliability, security, and price – differences that are sufficiently large that Type I special access services fall into a separate relevant product market than BDS that are not provisioned wholly over a carrier's own facilities. *See AT&T-BellSouth Order*, 22 FCC Rcd at 5677-78, para. 29; *Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18433, 18448, para. 26 (2005) (*Verizon-MCI Order*); *SBC-AT&T Order*, 20 FCC Rcd at 18305-06, para. 26 & n.89.

[53] *AT&T-BellSouth Order*, 22 FCC Rcd at 5677-78, para. 29; *Verizon-MCI Order*, 20 FCC Rcd 18433, 18448, para. 26 (2005); *SBC-AT&T Order*, 20 FCC Rcd at 18305-06, para. 26 & n.89. With respect to Type II BDS, in prior incumbent LEC-competitive LEC transactions, the Commission has either declined to even consider and analyze separately competitive harm due to the loss of a Type II provider, or concluded, as we do here, that the ability of other competitive providers to move in quickly alleviates any competitive harm concerns due to the loss of a Type II special access provider. *See Qwest-CenturyLink Order*, 26 FCC Rcd at 4203, para. 17 (limiting competitive harms analysis to only facilities-based overlaps); *AT&T-BellSouth Order*, 22 FCC Rcd at 5680-82, 5687, paras. 37, 40, 51 (finding that competitive LECs can contract for collocation and can purchase special access circuits or UNEs to provide Type II services); *see also SBC-AT&T Order*, 20 FCC Rcd at 18308, 18311, paras. 33, 41; *Verizon-MCI Order*, 20 FCC Rcd at 18451, 18453, paras. 33, 41.

[54] *See Qwest-CenturyLink Order*, 26 FCC Rcd at 4202, para. 16; *AT&T-BellSouth Order*, 22 FCC Rcd at 5678, para. 31 (relevant geographic market for wholesale special access services is a particular customer's location); *SBC-AT&T Order*, 20 FCC Rcd at 18307, para. 28; *see also Hawaiian Telecom Order*, 27 FCC Rcd at 16087, para. 12 ("[i]n previous transactions, the Commission has determined that, in considering the risk of harm to competition in the provision of special access services, the relevant geographic market is a particular customer's location."). We follow this precedent in evaluating the instant Transaction, taking a conservative approach to ensure that commenters' concerns of competitive harm to customers in overlapping buildings are considered at the smallest geographic level possible.

[55] Public Interest Statement at 2, 3.

[56] XO's internal documents demonstrate that an overwhelming percentage of its BDS is provided using leased facilities. *See infra* note 102.

[57] Verizon's incumbent LEC footprint is now confined to areas within Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia, and Virginia, including a small number of customers on Knotts Island, North Carolina via Verizon's Virginia incumbent LEC from a wire center in Virginia. *See* March 22 Supplement at 1 & n.4.

[58] *See* Letter from Katharine Saunders, Associate General Counsel, Verizon, to Marlene Dortch, Secretary, FCC, WC Docket No. l6-70, at Attach., Verizon-XO Transaction, Whitepaper on the effect of Verizon's XO acquisition

(continued….)

XO's top competitor analysis reflects that it rarely considers Verizon as its top competitor.[59] For example, in only **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** of XO's 85 market areas nationwide does it consider Verizon its leading competitor for mid-market and enterprise customers.[60] Applicants cite to independent analyst reports estimating Verizon's national enterprise Ethernet market share at approximately 19.6 percent and XO's as between 0.5 and 2 percent.[61] The same reports estimate that for wholesale Ethernet market share, Verizon has an approximate 28.3 percent share of the market, while XO has an approximate 3.9 percent share.[62]

20. Verizon indicates that it currently has more than 125,000 fiber-connected non-residential buildings nationwide,[63] almost all of which are located in its incumbent LEC region.[64] Through the Transaction, Verizon will acquire XO's approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** on-net buildings,[65] **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY**

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on business data services, at 6 (filed Aug. 26, 2016) (Verizon BDS White Paper) (explaining how rarely Verizon competes head-to-head with XO in the marketplace to win a potential BDS customer's business). **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. *Id*.

[59] *See* Letter from Thomas W. Cohen, Counsel to XO, to Marlene H. Dortch, Secretary, FCC, at Exh. A (filed Aug. 2, 2016) (XO Aug. 2, 2016 Response to Information Request) (listing XO's markets and top competitors in each).

[60] *Id*. This same competitor analysis reflects that in XO's market areas *within Verizon's incumbent LEC territory,* XO's top competitors are most often either **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**.

[61] March 22 Supplement at 4 n.14 (citing Frost & Sullivan, *Business Carrier Ethernet Services Market Update, 2015,* at 32-33 (Sept. 2015), which estimates total market share based upon 2013 and 2014 revenues and notes that Verizon's share of the business/enterprise Ethernet market declined from 22.5 percent in 2013, and further citing IDC Market Analysis at 10, which estimates Verizon's and XO's shares of the Ethernet market as 19 percent and 3 percent, respectively, in 2014).

[62] March 22 Supplement at 4 n.15 (citing Frost & Sullivan, *Wholesale Carrier Ethernet Services Market Update, 2015*, at 26 (Aug. 2015), which estimates total wholesale market share based upon 2014 revenues). XO's internal documents reflect that across all customer segments, for all of its BDS and other commercial services, ranging from small/medium businesses (SMB) to national/wholesale markets, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. *See* XO-FCC00016895, "XO Communications Long Range Plan 2016-2018," XO, at 7; VZXO-33-00000002, "XO Communications Overview Document," XO, at 9 (Nov. 2015). Significant, however, is that XO's internal market share numbers are not based only on its facilities-based services, but include the substantial amount of its business that is based on leased services from other providers, including incumbent LECs.

[63] *See* March 22 Supplement at 3.

[64] Approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **END HIGHLY CONF. INFO.]** are located outside of its incumbent LEC region. *See* Letter from Bryan N. Tramont and Adam D. Krinsky, Counsel to Verizon, and Thomas W. Cohen, Counsel to XO, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at 2 (filed Sep. 16, 2016) (XO/Verizon Sep. 16, 2016 *Ex Parte* Letter).

[65] March 22 Supplement at 2. The total number of XO on-net buildings in Verizon's incumbent LEC region has increased since Applicants submitted the March 22 Supplement, as reflected in XO's updated responses to the June 22, 2016 Information and Data Request. *See* Letter from Thomas Cohen, Counsel to XO, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at n.4 (filed Sep. 14, 2016) (XO Sep. 14, 2016 *Ex Parte* Letter). XO "on-net" buildings include XO buildings served by either fiber, copper (a small number acquired from a prior XO competitive LEC acquisition), or fixed wireless. *See* March 22 Supplement at n.5. Based on updated information

(continued….)

CONF. INFO.] of which are fiber-connected buildings in Verizon's incumbent LEC territory.[66] Verizon also will acquire XO's national inter-city fiber network and metro fiber networks in 38 major markets.[67] Approximately 79-80 percent of XO's metro fiber is "dark."[68] The record does not reflect precisely how much of XO's long-haul fiber network is dark, but evidence suggests the percentage may be quite small.[69] Applicants submit that, all told, XO's total fiber assets are largely complementary rather than overlapping

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filed by XO, we have confirmed that the majority of these on-net buildings are fiber. *See* XO-FCC00046427; XO Sep. 14, 2016 *Ex Parte* Letter at n.4.

[66] *See* XO-FCC00046427 (spreadsheet identifying the addresses for the XO fiber buildings located within Verizon's incumbent LEC territory). *See also* XO Sep. 14, 2016 *Ex Parte* Letter at n.4 (confirming the number of XO fiber buildings in Verizon's incumbent LEC region); Letter from Bryan N. Tramont and Adam D. Krinsky, Counsel to Verizon, and Thomas W. Cohen, Counsel to XO, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-70, at 2 (filed Oct. 7, 2016) (XO/Verizon Oct. 7, 2016 Revised Supplement). XO serves approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** buildings throughout the United States through UNEs or leased BDS facilities from incumbent LECs and other competitive providers, including the UNEs used in the provision of XO's EoC service. XO Sep. 14, 2016 *Ex Parte* Letter at n.4.

[67] Public Interest Statement at 7; *see also* VZXO-33-00000001, "XO Communications Overview," Verizon, at 1 (Mar. 4, 2016). In addition to XO's more than 5,600 owned metro fiber route miles noted above, *see supra* para. 5, XO also has IRUs totaling approximately an additional 7,800 metro fiber route miles, for a total of close to 13,500 metro fiber route miles that it owns or controls through IRUs in its 38 major facilities-based markets. XO Sep. 14, 2016 *Ex Parte* Letter at 2; Public Interest Statement at n.5. (stating also "that a small portion of XO Communications' network utilizes copper, which usually is connected to a nearby node that is in turn connected to XO Communication's fiber facilities"). XO indicates that its long haul network consists of **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** *See* VZXO-33-00000165, "XO Communications Management Presentation," XO, at 53; VZXO-33-00000002, "XO Communications Overview Document," XO, at 22 (Nov. 2015); VZXO-11-000000007, "Email from Timothy A. Vogel, Verizon, to Jorge E. Beltran, Verizon, and Michael Rosenblat, Verizon, re: Emailing 11.1.1.1 Summary of Level 3 IRU and Maintenance Agreement," at 1 (Dec. 15, 2015); VZXO-11-00000010, "Cost Sharing and IRU Agreement dated July 18, 1998 between Level 3 Communications and XO Communications," XO, at 2-3 (Dec. 2015).

[68] *See* XO Sep. 14, 2016 *Ex Parte* Letter at 1-2*;* Public Interest Statement at 10. Commenters claim potential harm from the Transaction due to the loss of this dark fiber in the market, suggesting it would otherwise be available to competitive providers, particularly wireless carriers other than Verizon. S*ee* DISH Petition at 3, 17-19. We address this potential harm in more detail below, but note that **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** XO-FCC00000654, "Active XO Products".

[69] The record does indicate that XO's long-haul network is considered **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.].** *See* VZXO-33-00000045, "XO Communications Profile," Citi Corporate and Investment Banking, at 2, 6 (Nov. 19, 2015); XO-FCC00000010, "XO Communications Overview Document," XO at 18, 20 (Nov. 2015). *See also* VZXO-33-00000115, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. Moreover, in describing its long-haul network, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** XO-FCC00016895, "XO Communications Long Range Plan 2016-2018," XO, at 60. Further, a schematic produced by XO of its long-haul network indicates **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** *Id.* at 61.

with Verizon fiber facilities, approximately 15 percent of which are in Verizon's incumbent LEC region and the remaining 85 percent outside of it.[70]

1. Loss of Facility-Based Fiber Competition in Verizon's Incumbent LEC Region.

21. In this section, we analyze the potential competitive harms arising from the loss of XO as a competitive provider of BDS within Verizon's incumbent LEC region, including the loss of future expansion by XO.[71] Based on our evaluation of the record, as set forth in detail below, we find that the Transaction will have only a *de minimis* effect on BDS competition in Verizon's incumbent LEC region.[72]

22. Verizon and XO have overlapping BDS fiber connections to **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** buildings in Verizon's incumbent LEC region. We identify a potential for competitive harm in only two of these buildings. However, because of the particular characteristics of these two buildings, as described below, we find this potential harm *de minimis.* In accordance with Commission precedent,[73] we first determine which overlap buildings have alternative competitive fiber providers in addition to the Applicants already in the building. Next, we assess the likelihood of competitive entry to buildings where there are no alternative fiber-based providers, other than the Applicants, to determine if nearby facilities-based competitors are likely to connect their fiber to the building in response to a post-Transaction attempt by Verizon unilaterally to increase prices to customers in that building.[74] The lower the demand in the building, the closer another competitive fiber provider must be to that building for entry to be profitable and thus likely.

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[70] March 22 Supplement at 2. Applicants' multiple data responses to the June 22 Information and Data Request confirm Applicants' claim.

[71] Certain commenters claim this loss of potential competition also is an addressable harm. For example, DISH argues that certain of Verizon's claimed synergies, such as **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** should be discounted because instead of benefiting the public interest, these benefits actually would result in the loss of future fiber expansion and constitute "harms." *See* Letter from Stephanie A. Roy, Counsel to DISH, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at 1-2 (filed Oct. 5, 2016) (DISH Oct. 5, 2016 *Ex Parte* Letter). As we explain in more detail below, because we find no competitive harm where competitive entry into a building is deemed likely, and because XO has explained that it bases its decisions to build fiber to a building based on potential customers' demands in that building and associated costs of entry (similar to what the Commission's precedent suggests competitors generally consider in making build decisions), any building that XO has previously determined met its fiber entry criteria and thus was planning to connect with fiber would be similarly attractive to other competitors if customer demand in that building was not being met. *See* XO Sep. 14, 2016 *Ex Parte* Letter at 2. Thus, if XO entry does not occur as a result of the Transaction because Verizon already has fiber in that location, and Verizon's prices were not competitive, then another competitor likely would find sufficient demand and enter in its place. We nevertheless address this potential harm in more detail in our evaluation of the Transaction synergies. *See infra* Section VI.A.

[72] We acknowledge the Commission's continuing consideration of the technological and competitive changes that have occurred in the BDS marketplace over the past several years and recognize that changes to the regulatory framework governing these services may occur. We conduct our analysis, however, in the context of this Transaction and in light of the facts related to the particular Applicants before us. In conducting this analysis, we make no finding concerning the analytical and regulatory framework that should apply more generally to BDS.

[73] *See AT&T-BellSouth Order*, 22 FCC Rcd at 5682-83, paras. 41-43 (describing the basis underlying a finding that competitive entry is unlikely, based on the prior *SBC-AT&T Order* and *Verizon-MCI Order* that found competitive harm in cases where an overlap building went from two to one providers post-transaction and no other facilities-based competitors' fiber locations were within 0.1 mile, 0.25 mile, or 1 mile, based on overlap building demand).

[74] *See infra* para. 23 & note 76. *See also Qwest-CenturyLink Order*, 26 FCC Rcd at 4203, para. 17 (stating that "in previous transactions in which an incumbent LEC has acquired a competitive LEC, the Commission has identified competitive harm where both carriers provide service to a building over their own facilities and there is no evidence that another competitive LEC is likely to connect to the building," (citing *Application for Transfer of Control of*

(continued….)

23. Although the record of this proceeding is sparse regarding when an alternative provider may decide to enter a building to provide service,[75] relying on Commission precedent, we conservatively estimate that when demand is at least 100 Mbps, which is approximately equivalent to two DS-3s, and the provider is already within 0.1 miles of the location, competitive entry is possible and likely and will provide a competitive constraint on the prices charged at that location.[76]

24. Applicants each submitted detailed nationwide building location data. Using this data, WCB was able to confirm Applicants' overlap assertions[77] and analyze independently (1) where Verizon and XO both have facilities-based end-user BDS connections; (2) where building overlaps occur; (3) what bandwidth is provisioned to the buildings; (4) whether other facilities-based providers are located in or near the overlapping buildings up to 1,000 meters; and, (5) if so, whether the competitors' facilities are fiber. WCB determined that there are **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** where both Verizon and XO have fiber connections and there are no other fiber competitors in these buildings.

25. Of these in-region buildings, there are only two where the demand level does not reach 100 Mbps (the more common and increasingly utilized equivalent to two DS-3s) and there is a competitive fiber provider within 0.1 miles. However, we find that the specific characteristics of these two buildings[78] do not warrant any conditions.[79] Specifically, one building is a vacant single story warehouse-type location that is served by the local cable company. The second building is a residential five-floor apartment building also served by the local cable company and the first floor houses a single commercial tenant, a bank, for which Verizon provides one T-1 line. XO provides no services to these buildings via its fiber. For both buildings, however, other competitive fiber providers are located near these buildings.[80]

26. All told, after completing its in-region fiber overlap analysis, WCB determined that more than 99 percent of the **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** XO

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OnFiber Communications, Inc. to Qwest Communications Corporation, 21 FCC Rcd 9933, 9933 n.5 (2006) (*Qwest-OnFiber Order*)); *see also AT&T-BellSouth Order*, 22 FCC Rcd at 5676-77, para. 27.

[75] *But see* XO Sep. 14, 2016 *Ex Parte* Letter at 2-3 (explaining that a decision to build depends on a customer's demand and cost of construction, and XO "as a rule has found it economically feasible to build where it was within **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** miles, and as demand for higher bandwidth services is increasing, "the business case to deploy fiber is becoming more viable" and that the current "sweet spot" for business data services is 100 Mbps Ethernet service).

[76] A competitive constraint may well exist at lower levels of demand or at distances further than 0.1 miles. The record in this proceeding, however, is insufficient for us to make those determinations. Moreover, because we want to ensure that there is no competitive or other public interest harm that might result from the combination of two competitors, we necessarily take a conservative view. Finally, we note that while the demand and supply of fiber services likely has changed in the last decade, *see supra* note 72, our conclusion that the presence of other fiber providers within 0.1 miles where there is at least 100 Mbps of demand in a building is consistent with past decisions of the FCC and DOJ. *See AT&T-BellSouth Order*, 22 FCC Rcd at 5682-83, 5685 paras. 41-42, 46 and footnotes contained therein (also discussing *SBC-AT&T* and *Verizon-MCI* transactions).

[77] *See* XO/Verizon Oct.7, 2016 Revised Supplement at 2 (stating that more than 90 percent of the Applicant's overlap buildings have at least one other fiber competitor also in the building in addition to Verizon and XO, and 99.68 percent have at least one fiber competitor either in the building or within 0.1 mile).

[78] The addresses of these buildings are: **[BEGIN HIGHLY CONF. INFO.** [redacted] **[END HIGHLY CONF. INFO.]**.

[79] Because our analysis does not support a finding that the Transaction will create a public interest harm within Verizon's incumbent LEC region, we decline to adopt Public Knowledge's suggestion that we require a divestiture of overlapping facilities. *See* Public Knowledge Petition at 14.

[80] *See* XO/Verizon Oct. 6, 2016 Supplement at Exhs.

buildings that have overlapping fiber facilities with Verizon within its incumbent LEC region have either (1) one or more alternative competitive fiber providers already in the building, or (2) one or more alternative competitive fiber providers within 0.1 miles of the building and demand in the building is currently at least 100 Mbps. This exceeds the minimum two DS-3 demand threshold deemed sufficient to entice a fiber competitor with facilities located 0.1 mile from the building to enter the building in the event Verizon seeks to increase prices post-Transaction. For these buildings, the presence of, in many cases, multiple facilities-based fiber competitors in addition to the Applicants renders unfounded commenters' concerns that the Transaction will increase Verizon's strong incumbent LEC position in the BDS market to the detriment of enterprise customers and wholesale providers. [81]

2. Loss of Facility-Based Fiber Competition Outside of Verizon's Incumbent LEC Region

27. We find that the proposed Transaction poses no material risk of harm to competition in the provision of enterprise or wholesale BDS outside of Verizon's incumbent LEC territory. In contrast to our analysis above, outside of Verizon's incumbent LEC territory both Verizon and XO operate as competitive LECs.[82] We do not agree with commenters' assertions that the Transaction will result in significant competitive harm from Verizon's alleged "increase in market power" outside of its incumbent LEC region.[83] Commenters have provided no evidence, and the record is to the contrary, that Verizon has any market power outside of its incumbent LEC territory. Rather, the argument is that Verizon has market power simply because it is an incumbent LEC. But the Commission previously has found that a competitive LEC that is also an incumbent LEC in a contiguous territory does not have any unique advantage over other competitors when competing outside of its incumbent LEC region. As we explained, "the economic barriers that prevent competitive LECs from providing services over their own facilities also apply to an incumbent LEC competing out-of-region . . . [it] does not obtain more favorable discounts, nor more favorable collocation . . . than other competitive LECs".[84] There is nothing in the record to make us depart from these findings.

28. Further, an analysis of the Applicants' fiber overlap outside of Verizon's incumbent LEC region demonstrates that competitive harm is unlikely. Of the approximately 4,000 XO fiber buildings outside of Verizon's incumbent LEC territory, Verizon and XO have overlapping fiber facilities in only **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** buildings.[85] These overlap

[81] *See* DISH Petition at 24, stating that although only 15 percent of XO's fiber network is located inside Verizon's incumbent LEC wireline footprint, the incumbent LEC footprint includes major metropolitan markets such as Boston, Philadelphia, Pittsburgh, Baltimore, and the District of Columbia; *see also* Public Knowledge Petition at 3. Because our analysis does not support a finding that the Transaction will create a public interest harm within Verizon's incumbent LEC region, we decline to adopt conditions limiting the rates that Verizon would be permitted to charge for in-region last-mile services or requiring that Verizon continue to make available unbundled DS1 and DS3 loop facilities as requested by Windstream and INCOMPAS. *See* Windstream Comments at 4, 14-21; INCOMPAS Nov. 11, 2016 *Ex Parte* Letter at 2.

[82] *See BDS Tariff Order and FNPRM,* 31 FCC Rcd at 4747, para. 53, n.122 ("[c]ompetitive LECs include affiliates of incumbent LECs that are operating outside of the incumbent's territory"); *see also AT&T-BellSouth Order*, 22 FCC Rcd at 5690, para. 55 (contrasting AT&T's status as an incumbent LEC to its competitive LEC status when operating out-of-region).

[83] Windstream Comments at 4.

[84] *See AT&T-BellSouth Order*, 22 FCC Rcd at 5691, para. 55.

[85] XO/Verizon Sep. 16, 2016 *Ex Parte* Letter at 2 (updating XO's out-of-footprint fiber buildings and overlap information to account for additions since the March 22 Supplement). In addition to Applicants' statements indicating the number of overlapping out-of-region buildings and the status of other competitors in or near the overlap buildings, our own independent analysis based on the comprehensive and multiple data submissions Applicants made in response to the Commission's June 22 Information and Data Request confirms Applicants' claims.

buildings are scattered throughout the 41 states where Verizon and XO each operate as competitive LECs, and we have confirmed that more than **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** percent of these buildings also have other fiber competitors in the building.[86] Some commenters express concern that Verizon might not utilize XO's fiber facilities to aggressively compete in the provision of BDS outside of Verizon's incumbent LEC territory.[87] However, even if this were true, the presence of multiple other BDS competitors outside of Verizon's incumbent LEC territory would mean that no competitive harm would likely occur from Verizon's failure to aggressively compete for customers using XO's fiber assets.[88] Applicants dispute this, arguing that the acquisition of XO's fiber assets will better enable Verizon to expand and improve service to enterprise and wholesale customers, particularly outside Verizon's incumbent LEC territory, rejecting suggestions that Verizon is unlikely to utilize XO's fiber assets to vigorously compete. They also argue that "letting facilities lie fallow after purchase would make little sense."[89] As a general matter, we agree that when service providers invest in network facilities, whether through building or buying, they have an incentive to use those facilities to provide service and collect revenue.[90] We also find support in the record for Verizon's argument that it will continue to compete outside of its incumbent LEC territory. [91] Based on both the record before us

[86] *Id.*; s*ee, e.g.*, *Qwest-CenturyLink Order*, 26 FCC Rcd at 4202, para. 15; *Notice of Non-Streamlined Domestic Section 214 Application Granted for the Transfer of Control of Iowa Telecommunications Services, Inc. to Windstream Corporation*, Public Notice, 25 FCC Rcd 5456 (WCB 2010)*; Application Granted for the Transfer of Control of Unite Private Networks, LLC and Unite Private Networks-Illinois, LLC to Cox Communications, Inc.*, WC Docket No. 16-241, Public Notice, DA 16-1206, at 2-3 (WCB 2016); *Level 3-tw telecom Order*, 29 FCC Rcd at 12847, para. 14; *Notice of Domestic Section 214 Authorizations Granted for the Transfer of Control of EasyTel Communications Carrier Corporation to CoxCom, LLC,* Public Notice, 28 FCC Rcd 14738 (WCB 2013); *Applications Granted for the Transfer of Control of FiberNet from One Communications Corp. to NTELOS Inc*., Public Notice, 25 FCC Rcd 16304, 16307 (WCB, IB 2010).

[87] *See* INCOMPAS Petition at 12; Windstream Comments at 3 (asserting that Verizon may benefit from engaging in coordinated behavior with AT&T to limit competition for BDS in each other's region and raise rivals costs); DISH Petition at 25.

[88] *See AT&T-BellSouth Order,* 22 FCC Rcd at 5693, paras. 58-59 (dismissing opponents claims that the transaction will result in AT&T and Verizon engaging in harmful coordinated interaction or mutual forbearance from competing in the other's territory due to the number of other competitive facilities-based providers in the market)*; SBC-AT&T Order*, 20 FCC Rcd at 18305, para. 34; *Verizon-MCI Order*, 20 FCC Rcd at 18448, para. 34 (finding that the presence of other actual and potential competitors will fill any void left by the merged entities' failure to continue to provide wholesale special access services outside of its incumbent LEC territory).

[89] Joint Opposition at 17.

[90] *See e.g*., *AT&T-BellSouth Order,* 22 FCC Rcd at 5693, para. 59 (rejecting a commenter's claim that AT&T may refrain from competing out of its incumbent LEC region under a "mutual forbearance theory", noting that AT&T's investment in its nationwide network made it reasonable to expect that it would have strong incentives to utilize fully its assets); *see also, SBC-AT&T Order,* 20 FCC Rcd at 18319, para. 53*; Verizon-MCI Order,* 20 FCC Rcd at 18448, para. 54 (noting that Verizon is spending billions to acquire MCI's network and business and it is reasonable to expect it to have strong incentives to utilize fully those assets outside of its incumbent LEC region).

[91] *See* Verizon BDS White Paper at Exh. 1. (VPS Ethernet/IP Center of Excellence Update) (**[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**); VZXO-36-00000001, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**). Verizon documentary evidence confirms that this aggressive pricing strategy with respect to its Ethernet products has not only been implemented, but that certain opponents of the Transaction **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. *See also* XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 5.

and the current state of the industry, we find that Verizon's acquisition of XO's fiber facilities outside of Verizon's incumbent LEC territory is unlikely to result in any public interest harm. Rather, as discussed below, we conclude that the Transaction likely will result in a stronger combined competitive provider to incumbent LECs, large cable companies, and other nationwide competitive providers in the wholesale and enterprise BDS market.

3. Loss of XO as a Provider of Ethernet over Copper

29. As set forth below, we find no transaction-specific harm from the loss of XO as an independent provider of EoC in the geographic areas where XO currently operates. EoC is a packet-based Ethernet service delivered using copper. EoC providers obtain bare unbundled network element (UNE) copper loops, bundle them together and add off-the-shelf electronics to offer lower-speed Ethernet services, with capacities ranging typically from 1-20 Mbps.[92] We analyze the potential harm from the loss of XO as an independent provider of EoC service separately from our analysis of XO's owned fiber services because (1) XO's EoC service is provided over UNEs obtained from incumbent LECs and therefore is not the same as the facilities-based services we consider for our BDS analysis,[93] and (2) commenters' claims that XO plays a "unique" role in the wholesale services marketplace with respect to its EoC service warrant particular scrutiny.[94] In addition, as noted above, the service level agreements (SLAs) that XO offers for its EOC services may not meet the same guaranteed service and performance levels found by the Commission to be typical to BDS.[95]

30. Contrary to commenters' claims, we find that XO has no unique ability or special expertise in the provision of EoC service that other competitors are unable to replicate. The record confirms that the copper UNEs and other inputs, including collocation and off-the shelf electronics, used by XO to provide EoC service are readily available to other providers today and would continue to be available to other competitors in the future.[96] Verizon also provides information reflecting that in all but

[92] *BDS Tariff Order and FNPRM*, 31 FCC Rcd at 4728, para. 50 & n.116; *see also* Letter from Thomas Cohen, Counsel to XO Communications, LLC, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at 4 (filed July 28, 2016) (XO July 28, 2016 *Ex Parte* Letter) (describing EoC service). EoDS1 is similarly provided using copper UNE or special access DS1s. *Id.*

[93] *See supra* Sections V.A.1. & V.A.2.; *see also* note 66.

[94] *See e.g.* Windstream Comments at 7 ("XO, in particular, has been uniquely successful in developing and operating EoC service as a more cost-effective alternative to Verizon's BDS services up to 100 Mbps"); Letter from Thomas Jones, Counsel for EarthLink, Inc., to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70 (filed Sep. 12, 2016) (EarthLink Sep. 12, 2016 *Ex Parte* Letter); Letter from Angie Kronenberg, Chief Advocate and General Counsel, INCOMPAS, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at 3 (filed July 6, 2016); INCOMPAS Petition at 20-22; Transbeam Comments at 2.

[95] *See BDS Tariff Order and FNPRM,* 31 FCC Rcd 4728, at para.13; *see also infra* note 45. For example, because EOC is largely provided over UNEs obtained from incumbent LECs, XO cannot guarantee any repair or maintenance timeframe for EOC customers when outages occur. Similarly, throughput and network availability performance levels are not offered at the typical "five nines," (i.e., 99.999 percent levels of other BDS) and latency guarantees differ. See XO-FCC00000448, "XO Ethernet Services", XO, at 12.

[96] *See BDS Tariff Order and FNPRM,* 31 FCC Rcd at 4747-48, para. 56 (describing how UNEs, available to all competitive carriers on non-discriminatory terms at rates fixed by state commissions following federal guidelines, are able to be used by competitive providers for BDS); 47 CFR § 51.501 *et seq. See also* Verizon BDS White Paper at 22-23. Similarly, pursuant to Commission rules, collocation is a tariffed incumbent LEC offering available on non-discriminatory terms and conditions. 47 CFR §§ 51.321, 51.323 (setting forth collocation rules); *see also, e.g.,* Verizon FCC Tariff 1, § 19 (interstate collocation tariff). Indeed, the record contains evidence of multiple other competitive EoC providers (some of which are larger EoC providers than XO, e.g., Global Capacity/MegaPath), including at least two of the commenters in this proceeding, each of which, according to Verizon, has more collocations in Verizon COs than XO **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** *See* Verizon BDS White Paper at 22-27.

one of the 297 central offices (COs) where XO collocates, at least one, and more often several, other competitors also are collocated. More importantly, however, Verizon states that in all of the 135 Verizon COs from which XO provides EoC service, there is at least one other collocated competitor.[97]

31. Relatedly, we conclude that even in the unlikely event of Verizon entirely transitioning away from providing any EoC service post-transaction,[98] if sufficient demand for EoC service remains, other competitors already provide this service or could readily offer it to satisfy such EoC demand.[99] Few barriers to entry appear to exist for providers seeking to offer EoC service for the multiple competitive providers that already are collocated in the same incumbent LEC central offices where XO is collocated.[100] Verizon has submitted an EoC profitability analysis demonstrating the relatively short payback period for a competitive LEC already collocated in a CO but that does not currently offer EoC from that CO. XO similarly provides EoC cost and profitability estimates.[101] No commenter submitted any evidence refuting these analyses.

32. We further find that independent of the Transaction, XO had begun implementing a product strategy shift away from reliance on leased incumbent LEC facilities of any type, but especially copper-based facilities, in favor of its own on-net fiber-based services.[102] Commenters' suggestions that

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[97] Verizon BDS White Paper at 24-26; XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 2. We note that Earthlink claims that XO has 85 unique EoC COs from which it provides service. *See* EarthLink Sep. 12, 2016 *Ex Parte* Letter, Attach at 4. While the record does not contain competitive collocation information for the number of competitors collocated in COs outside Verizon's incumbent LEC territory, we can surmise from the evidence we do have that none of these 85 "unique" COs are in Verizon's incumbent LEC region. Finally, Applicants provide information indicating that Earthlink buys EoC service from XO out of only **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 3.

[98] XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 2-3 (reiterating that Verizon has no plans to discontinue XO's EoC services following the Transaction, and that it "sees the value of this service offering in specific markets for appropriate business applications"); *see also* Verizon BDS White Paper at 21. Applicants have repeatedly stated Verizon's intention to continue to seamlessly serve *all* of XO's existing customers after the Transaction closes and to honor XO's existing contractual arrangements. *See* Public Interest Statement at 12; Joint Opposition at 10; Verizon July 7, 2016 Response to Information Request at 43. For XO's EoC services in particular, however, Verizon not only has said that it "has no plans to discontinue XO's EoC services following the transaction, either outside or within Verizon's incumbent LEC footprint," but that its acquisition of XO "will not accelerate . . . the demise of EoC service" but "[r]ather, approval of the transaction may prolong the availability of XO's EoC service." Verizon BDS White Paper at 2-3, 30. Finally, commenters' concerns regarding potential Verizon plans to discontinue XO's EoC services are premature. Should Verizon seek to discontinue or reduce offering EoC in any geographic area, the Commission's section 214 discontinuance rules require that approval for such discontinuance must first be filed with the Commission, providing opponents an opportunity to oppose the discontinuance if they have concerns at that time. 47 U.S.C. § 214; 47 CFR § 63.71.

[99] *See supra* note 96.

[100] *See* XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 2; Joint Opposition at 10; Verizon BDS White Paper at 17-18 (identifying the various collocators and the number of Verizon COs in which they are collocated).

[101] Verizon BDS White Paper at 17-18 at Appx. A (showing payback period of **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**); XO July 28, 2016 *Ex Parte* Letter at 5.

[102] This strategy shift, as reflected in XO's documentary evidence, began in early 2014, although XO has most recently stated "XO *for the past several years* has been reducing its investment in this [EoC] technology" (emphasis added). *See* XO Sep. 14, 2016 *Ex Parte* Letter at 4. XO goes on to state that "type II service (using unbundled loops from the incumbent or lit services from the incumbent or a competitor) is at best a marginally profitable service." *Id*. The record reflects this strategy shift in practice as XO's number of served buildings has dropped dramatically in the past two years from a high of **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** buildings in mid-2014, of which approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** were on-net and with close to **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** served through leased facilities, to a total today of approximately **[BEGIN HIGHLY**

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XO serves hundreds of thousands of buildings nationwide with its EoC product is belied by XO's indication that it provides EoC services to only approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** commercial customers.[103] Furthermore, XO's EoC sales have declined substantially over the last 18 months to less than half the number of installations per month compared to early 2015 levels,[104] and XO has substantially reduced its investment in EoC service from a high of **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**.[105]

33. Applicants also have demonstrated that EoC technology cannot sustain or technically support the increasing bandwidth and capacity demands of many BDS and business customers[106] and that

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CONF. INFO.] [redacted] **[END HIGHLY CONF. INFO.]** buildings that it serves with leased facilities or services. *Id*. XO indicates that it currently serves approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** buildings either on-net or using UNEs provided by incumbent LECS, and an additional **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** buildings using leased facilities, and that it serves **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** on-net buildings. XO's owned on-net buildings currently make up approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** percent of XO's total served buildings, up from approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** in mid-2014. These numbers corroborate XO's move to reduce its reliance on leased facilities in favor of owned on-net facilities. *See* VZXO-33-00000001, "XO Communications Overview," Stephens, at 1; XO-FCC00000010, "XO Communications Overview Document," XO, at 34 (Nov. 2015). *See also* XO-FCC00016895, "XO Communications Long Range Plan 2016-2018," XO, at 19, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** XO-FCC00000051, "XO Communications Project Vector Overview Document," XO, at 12 (Jan. 12, 2016). In addition, documentary evidence indicates that the low prices commenters claim XO offers **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** *See* XO-FCC00000010, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** *id.* at 3 **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**

[103] *See* Windstream Comments at 8 (claiming that as of early 2015, XO provided EoC service to approximately 953,000 buildings). While the COs within which XO has collocated and equipped with EoC capability *can reach* more than 950,000 buildings, XO actually served less than **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** of those buildings with EoC as of April 2016. XO July 28, 2016 *Ex Parte* Letter at 5. Indeed, XO's revenue from EOC service accounts for approximately only **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** of its total BDS revenue. *See* XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 3; Verizon BDS White Paper at 20.

[104] Verizon BDS White Paper at 20; *see also*, XO July 28, 2016 *Ex Parte* Letter at 5; XO-FCC00001661, "XO EoC Trending Information Installed Unit Count January 2015 to June 2016," XO, at 1 (showing continued declines in wholesale and commercial EoC installations).

[105] Verizon BDS White Paper at 20.

[106] *See* XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 3-4; Verizon July 7, 2016 Response to Information Request at 19, 20. *See also* Verizon BDS White Paper at 14-15 (speeds higher than 20 Mbps are difficult to achieve with EoC, due to the length of the copper wire and other factors, and that over the prior 18 months, all of XO's EoC sales have been at **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** Mbps or below, and **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** have been at **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** Mbps or below); XO July 28, 2016 *Ex Parte* Letter at 5 (noting that its "customers are demanding 100+ Mbps Ethernet service, and there is every indication they will demand even higher

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it is fading in importance due to the continued deployment of fiber-based BDS technologies.[107] XO states that "the supply of incumbent copper loops is dwindling due to deterioration and the incumbents' deployment of fiber" and that as a result, EoC has "diminishing importance."[108] XO refers to EoC as a **BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** solution.[109] Further, for some EoC customers who may not require the same performance guarantees or higher bandwidths available over fiber, the record suggests that the availability of "best efforts" and cable-provided Ethernet over hybrid fiber-coaxial cable (HFC) may be suitable substitutes for EoC.[110] Based on the record, we conclude that demand is shifting away from EoC, as evidenced by each Applicant's independent business decision, separate from the Transaction, to move away from copper and transition to fiber-based services. For these reasons, we find that the Transaction poses no material harm to competition with respect to the availability of EoC service.[111]

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speed service in the near future . . . [i]n any event, EoC cannot meet future customer demands for higher speeds . . . [o]nly fiber can meet those needs . . . EoC deployments have become more of a "fill-in" product for XO"). Internal Verizon documents suggest that other EoC providers share this view. *See* VZXO-17-00001300, [**BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO**.]).

[107] Verizon July 7, 2016 Response to Information Request at 19, 20; Verizon BDS White Paper at 15; *see also BDS Tariff Order and FNPRM*, 31 FCC Rcd at 4747-48, para. 49 and n.113 (recognizing the physical limitations of EoC and noting that BDS via copper, as the last-mile connection, is limited, absent the deployment of additional lines to a location, because the bandwidth of copper wire is much more limited than fiber, especially as distance increases). *See* VZXO-13-00001824, at 3, 5, 6 (**[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**). *Id.* at 4**.** *See* Verizon BDS White Paper at 13 (noting that XO's Director of Product Analytics acknowledged pre-merger that XO is "regularly competing" against cable companies for small-and mid-sized business accounts and has been "los[ing]" customers to those cable companies. XO Comments, WC Docket No. 05-25, RM-10593, at Anderson Decl. para 33, (filed Jan. 27, 2016) https://ecfsapi.fcc.gov/file/60001420028.podf.). *See also* XO/Verizon Oct. 14, 2016 *Ex Parte* Letter at 5.

[108] *See* XO Sep. 14, 2016 *Ex Parte* Letter at 3; XO July 28, 2016 *Ex Parte* Letter at 5.

[109] The record indicates that **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** The record also reflects that Verizon's pre-merger copper retirement plans would eventually eliminate EoC services in all but a few of the central Verizon offices from which XO provides those services, and that the transition of those COs to fiber will occur regardless of the Transaction. Verizon BDS White Paper at 13.

[110] *See* Verizon BDS White Paper at 13 (noting that XO acknowledged pre-merger that XO is 'regularly competing' against cable companies for small-and mid-sized business accounts and has been 'los[ing]' customers to those cable companies, citing XO Comments, Anderson Decl. para 33, WC 05-25 (filed January 27, 2016)). *See also* XO/Verizon Oct.14, 2016 *Ex Parte* Letter at 5.

[111] Because we do not find a transaction-specific harm associated with the loss of XO as an independent provider of EoC service, we decline to adopt the conditions proposed by commenters regarding the rates and terms under which Verizon would continue to offer this service. *See* Windstream Comments at 4, 15; Letter from Sheba Chacko, Head, Americas Regulation and Global Telecoms Policy, BT, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-70 (filed Nov. 2, 2016); INCOMPAS Nov. 11, 2016 *Ex Parte* Letter at 3.

4. Other Issues

34. *Numbering Services for Wireless Providers.* One commenter representing small and medium regional wireless service providers has raised the concern that the Transaction will adversely impact the ability of these wireless carriers to obtain numbering resources which are necessary for smaller wireless carriers to compete with national providers and to port potential customers' numbers.[112] CCA asserts that Verizon and XO do not provide any assurance that XO's agreements to provide numbering resources will continue to be honored if Verizon assumes them.[113] We find CCA's concerns to be unfounded.[114] Applicants have specifically responded to CCA's concerns and indicated that, post-Transaction, Verizon will continue to comply with XO's contractual obligations, including pricing, with respect to numbering agreements.[115] But even if Verizon were to terminate those agreements, the loss of XO as a provider of numbering resources will not affect the wide array of other numbering suppliers, including incumbent LECs, nationwide wireless carriers, competitive LECs, and VoIP providers.[116]

35. *Multihoming*. Another commenter claims potential harm to enterprise customers from losing XO as an independent network for "multihoming" (i.e., the practice of connecting a host or a computer network to more than one network to increase reliability or performance, or reduce cost) as a result of the Transaction.[117] We disagree that the loss of XO as an independent provider will adversely affect multihoming. First, as noted above, most of XO's services use leased facilities from another provider,[118] and therefore customers purchasing a multihoming capability may not actually be obtaining this capability over a separate and different underlying provider's network. Thus, in some instances, the combination of Verizon and XO may not lead to the loss of different physical network.[119] But more importantly, as discussed above, because there are numerous other fiber providers either directly in the Verizon and XO fiber overlap buildings or nearby, any loss of XO-provided multihoming services can readily be replaced by another fiber provider.[120]

36. *Cell Site Backhaul*. Commenters also raise competitive harm concerns that the Transaction will adversely affect competition in the provision of wireline cell site backhaul service because Verizon will cease to make XO's fiber network facilities available to other wireless providers for

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[112] CCA Comments at 2-4. CCA states that the U.S. telephone numbering system provides for local, but not nationwide, number portability, and that rural and regional competitive carriers must rely on agreements with large competitive LECs, other wireless providers, or VoIP providers to gain access to numbering resources.

[113] CCA Comments at 2-4.

[114] Because we find no public interest harm regarding the availability of numbering resources, we decline to adopt the condition suggested by CCA. *See* CCA Comments at 4.

[115] Verizon July 7, 2016 Response to Information Request at 25-26.

[116] Indeed, the Commission has made numbering resources available more widely to a new class of providers who are able to obtain numbering resources on a nationwide basis and make them available. *See Numbering Policies for Modern Communications et al.*, Report and Order, 30 FCC Rcd 6839 (2015) (making numbering resources available to VoIP providers).

[117] Public Knowledge Petition at 5.

[118] *See infra* note 48.

[119] For example, in Verizon's incumbent LEC territory, Verizon has already determined in the context of evaluating XO's projected revenue streams and making necessary revenue adjustments to better reflect expected revenue from XO's existing customer base **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. *See infra* note 177 (discussing revenue adjustments in calculating synergies).

[120] Accordingly, we decline to adopt the multihoming conditions suggested by Public Knowledge. *See* Public Knowledge Petition at 14.

cell backhaul post-Transaction.[121] We find that the Transaction likely will have no impact on the provision of wireline cell site backhaul service or the continued availability of XO's facilities for this service to competitive wireless providers (other than Verizon). XO provides limited, if any, wireline backhaul service to cell sites today, and the record indicates that pre-Transaction, XO had no definitive plans to enter the cell backhaul market using its fiber network facilities in the future.[122] We recognize the possibility that XO might have changed its plans, notwithstanding the evidence in the record, and begun offering cell back haul service or dark fiber for cell back haul purposes at some point in the future in the absence of the Transaction. But that does not change the fact that Verizon's near-term acquisition of XO would enable these valuable and currently underutilized fiber facilities to be immediately put to use for the benefit of meeting mobile wireless consumers' demands – fiber that might otherwise potentially remain unused for years.[123] Finally, we find little risk that Verizon might acquire XO's fiber (dark or lit) and simply warehouse it without deploying it for cell backhaul or other uses. As we discuss above, when service providers invest in network facilities, they have an incentive to put those facilities to use to provide service and collect revenue. [124]

37. *XO as a "Maverick."* Commenters claim XO is a "maverick" among competitive LECs and a "disruptive force" in the industry, and that by eliminating XO as a provider of wireline business services, the proposed Transaction would diminish the chances that other competitive LECs that depend on these XO business services would benefit from lower prices and increased innovation in the purchase of relevant inputs.[125] Commission precedent recognizes the important role of a "maverick" competitor and the disruptive force it can have on price coordination among competitors to the benefit of customers,

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[121] For example, CCA states that while wireless providers like Verizon Wireless can rely upon their affiliated incumbent LEC to provision their cell site backhaul needs, independent competitive LECs have to rely on the incumbent LEC in their region for backhaul service. CCA Comments at 6. DISH states that the Transaction will contribute to lessened competition in the cell backhaul national market as companies "wishing to build a national backhaul network will have one less path for doing so" because Verizon's control over XO's dark fiber assets will create a bottleneck, and that by merging with XO, Verizon will eliminate its competitor in the backhaul market. DISH Petition at 3, 10. *See also* Public Knowledge Petition at 4.

[122] *See* XO Sep. 14, 2016 Ex Parte Letter at 3 n.5; *see also* Joint Opposition at 23 ("[w]hile XO provides a variety of private data and network services to other carriers, those services do not currently include backhaul from cell sites for wireless carriers"). Finally, WCB's own analysis of XO's response to the Commission's Mandatory 2013 Special Access Data Collection reflects the absence of any XO-connected locations identified as cell sites in response to Question II.A.4.(d). *See Special Access for Price Cap Local Exchange Carriers; AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, WC Docket No. 05-25, RM-105932, Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 16318, 16360, Appx. A (2012). Similarly, XO's internal business planning documents reflect **[BEGIN HIGHLY CONF. INFO]** [redacted] **[END HIGHLY CONF. INFO.]**. See XO-FCC00016895, "XO Communications Long Range Plan 2016-2018," XO, at 27, 34.

[123] See *infra* Section VI.B.1. (discussing the benefits of Verizon's acquisition of XO's fiber for wireless service).

[124] *See supra* para. 28. Thus, to the extent Verizon does not need all of XO's metro fiber capacity to serve its own enterprise customers or for its wireless self-provisioning needs, it will have an incentive to monetize that capacity, particularly the 85% of XO's metro fiber assets that are located outside of Verizon's incumbent LEC region.

[125] *See* Public Knowledge Reply at 4 ("[e]liminating an independent, maverick competitor like XO will have even more acute negative impact on innovation, competition, and pricing for BDS"); INCOMPAS Petition at 20 ("[A]pproval of the proposed transaction would extinguish XO's prominent role as a maverick among competitive LECs, willing to undertake risks and explore different business models in order to compete vigorously. A maverick firm can be an important disruptive force that inhibits tacit collusion in an industry as a whole, and, in this way, mavericks can be particularly beneficial to competition in markets with few participants."); *see also* INCOMPAS Nov. 11, 2016 *Ex Parte* Letter at 1.

as well as the role a maverick can play in the introduction of innovative services and price offers.[126] While offering EoC can be seen as maverick behavior, other providers also offer EoC[127] and commenters have not pointed to other maverick-like activities of XO. Further, the record demonstrates that XO's EoC service was being phased out by customers and competitors alike.[128] Finally, based on the record, we credit Applicants' claim that they seldom competed directly against each other,[129] thereby greatly lessening any incentive Verizon would have to acquire XO in order to eliminate a maverick.[130] For these reasons, we do not find sufficient evidence in the record to conclude that XO is a maverick such that we should be especially concerned about the loss of competition that would result from its acquisition.

38. *Fiber Buildout in Rural Areas*. Catron County (NM) Astronomical Association (CCAA) argues that the Commission should condition its grant of the Applications by requiring that the Applicants build fiber facilities in rural areas, especially in Arizona and New Mexico.[131] CCAA requests buildout in rural areas outside of Verizon's incumbent LEC territory where the Applicants operate as competitive LECs and their fiber facilities do not overlap. We find that CCAA's proposed condition is not transaction specific. The Commission has a regulatory framework in place to encourage and fund deployment of broadband service to high-cost areas of the country where there otherwise is not a private sector business case to serve particular rural areas.[132]

B. Loss of XO as an Independent Route into Verizon's Network and as a Competitive Provider of Transit Service

39. For the reasons stated below, we find that the loss of XO as an independent route into Verizon's network is unlikely to affect Verizon's incentive or ability to impose paid-peering arrangements on interconnecting networks, edge providers, or content delivery networks (CDNs) for access to Verizon's network.[133] Similarly, we find that the Transaction is unlikely to have a negative

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[126] *See, e.g., Applications of AT&T Inc. and Deutsche Telekom AG For Consent to Assign or Transfer Control of Licenses and Authorizations,* WT Docket No. 11-65, Order, DA11-1955, at Attach. Staff Analysis and Findings, at paras. 21-24, 75 (WTB 2011) (finding T-Mobile to be a "disruptive force in this market to the benefit of buyers . . . likely constrain[ing] [price] coordination," such that its absence would result in an "adverse" effect on competition) (citing *DOJ/FTC Horizontal Merger Guidelines* at § 2.1.5 (2010)).

[127] *See supra* at para. 31.

[128] *See generally supra* Section V.A.3; XO-FCC00000051, **[BEGIN HIGHLY CON. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. *See infra* note 102. We find no basis to impose the conditions requested by INCOMPAS. *See* INCOMPAS Nov. 11, 2016 *Ex Parte* Letter at App.

[129] *See supra* at para. 19.

[130] The record also contains a telling XO internal competitive landscape analysis for a six-month period in 2015, prior to the commencement of Transaction discussions with Verizon, showing XO customer gain and loss metrics against its 15 major competitors of BDS and other business services, including each of XO's top five incumbent LEC, competitive LEC, and cable MSO competitors. Based on this analysis, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. *See* XO-FCC00016895, "XO Communications Long Range Plan 2016-2018," XO, at 52.

[131] CCAA Comments at paras. 16-19.

[132] *See generally Connect America Fund*, WC Docket No. 10-90, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 5949 (WCB 2016); *Connect America Fund*, WC Docket No. 10-90, Report and Order, 28 FCC Rcd 15060 (WCB 2013).

[133] To function properly, the Internet depends on the interconnection of many separate networks, including those operated by ISPs, backbone networks, edge providers, and CDNs. Privately negotiated interconnection agreements between network providers typically govern how Internet traffic will be exchanged between networks and under

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impact on competition in the market for IP transit services.[134] We evaluate the competitive effects of Verizon's acquisition of XO with respect to each Applicant's position in both the Internet backbone services market[135] and the relevant national markets for access to Verizon's broadband Internet access services (BIAS) subscribers via interconnection and transit services.[136] The Commission has observed that "[t]he structure of interconnection agreements between edge providers, BIAS providers, CDNs, and backbone providers can have a significant impact on the ability of consumers and businesses to connect with each other."[137] We must therefore carefully consider whether the proposed Transaction will harm the public interest in a well-functioning market for Internet backbone services.

40. *Background.* Both Verizon and XO operate Tier 1 Internet backbone networks with a presence in major peering locations across the country.[138] These extensive national networks, along with peering relationships with other backbone providers, allow each Applicant to access the full Internet and offer IP transit services on a nationwide basis.[139] XO currently is ranked as the 13th largest global IP network,[140] featuring a presence in ten major peering cities in the United States[141] and offering "wholesale

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what financial terms. In a peering arrangement, traffic is exchanged only between the two parties and their respective customers. Peering arrangements can be accompanied by fees under a "paid peering" model, while "settlement-free" peering agreements allow for the exchange of traffic without payment. *See Charter-TWC Order*, 31 FCC Rcd at 6375-77, paras. 96-100; *2015 Open Internet Order*, 30 FCC Rcd at 5692-93, para. 202.

[134] Transit service provides access to the entire Internet, typically for a fee. Transit providers operate what are commonly referred to as Tier 1 networks—the extensive, international networks that form the backbone of the public Internet. Through settlement-free peering relationships with other Tier 1 networks, these entities obtain connectivity to the entire Internet, which they sell as transit service to smaller ISPs, CDNs, edge providers, and other wholesale customers. *See, e.g.*, William Norton, *The Evolution of the U.S. Internet Peering Ecosystem*, DrPeering, http://drpeering.net/white-papers/Ecosystems/Evolution-of-the-U.S.-Peering-Ecosystem.html (last visited Aug. 18, 2016). Transit agreements may be based on standardized offers, but customers routinely negotiate individualized terms of service, typically based on price and capacity or utilization. *See, e.g.*, Verizon July 7, 2016 Response to Information Request at 9.

[135] As used herein, the term "Internet backbone services" refers to services that route traffic across the Internet between ISPs, other backbone service providers, edge providers, and CDNs, and includes IP transit, settlement-free peering, and paid-peering services.

[136] The Commission has found that both the transit market and the market for interconnection with a nationwide BIAS provider are national in scope. *See Charter-TWC Order*, 31 FCC Rcd at 6379-80, para. 107 ("There is no indication that edge providers contract for direct or indirect interconnection with BIAS providers on a local market-by-market basis. . . . [W]hether an edge provider is contracting for transit, CDN services, or direct interconnection with a BIAS provider, it provides access to its full footprint.").

[137] *See e.g., Charter-TWC Order*, 31 FCC Rcd at 6375, para. 97; *2015 Open Internet Order*, 30 FCC Rcd at 5689-92, paras. 196-201.

[138] *See* XO Communications, *Settlement-Free Peering Policy* (last visited Aug. 25, 2016), www.xo.com/peering.pdf; PeeringDB, *Verizon Digital Media Services (EdgeCast Networks)*, https://www.peeringdb.com/asn/15133.

[139] *See, e.g.*, Verizon July 7, 2016 Response to Information Request at 9 (stating that "Verizon can provide Internet Backbone Services to any customer located within the United States, so long as they self-provision or purchase (through Verizon or another carrier) connectivity to a Verizon POP."). The availability of transit services is critical to edge providers and CDNs, who generally depend on transit to reach customers nationally in order to maximize their revenues. *See Charter-TWC Order*, 31 FCC Rcd at 6378, para. 106. Similarly, smaller ISPs, particularly those without extensive backbone infrastructure, also depend on transit services to provide full Internet access to their customers. *See id*. at 6376, para. 99.

[140] *See* Dyn, A Baker's Dozen, at 2, 4 (2015) (2015 Dyn Report), http://hub.dyn.com/h/i/239051215-a-baker-s-dozen-2015-edition. According to the Center for Applied Internet Data Analysis (CAIDA), another independent research organization, XO operates the 9th largest global network. CAIDA, *AS Ranking* (last visited Aug. 19, 2016), http://as-rank.caida.org/?mode0=as-ranking&data-selected=39. Regardless of the difference in rankings from these

(continued….)

IP transit" to enterprise customers nationwide.[142] XO does not offer or provide BIAS, instead focusing on providing service to enterprise and wholesale customers.[143] Verizon is ranked as the seventh largest global IP network[144] and also has a presence in major peering cities across the United States.[145] Verizon offers a range of Internet backbone services, including transit, settlement-free, and paid-peering services, and bilateral interconnection arrangements, which combine aspects of the settlement-free and paid-peering models.[146] Verizon also provides retail BIAS to approximately 9.2 million subscribers.[147] Verizon states that it is "too soon to say with specificity how XO's Internet backbone services business will be merged into Verizon's service offering," but it indicates that it "will comply with the terms of existing XO contracts."[148]

1. Loss of an Independent Route into Verizon's Network

41. We find that the proposed Transaction is unlikely to have a material effect on Verizon's incentive or ability to impose paid-peering arrangements on interconnecting networks. Commenters argue that Verizon's acquisition of XO will eliminate an independent transit provider that edge companies and others can use to access Verizon's customers without dealing with Verizon directly, and thus "further enhance Verizon's incentive and ability to implement harmful interconnection practices."[149] In general, the presence of large transit providers may prevent or mitigate the ability of large "eyeball" BIAS networks to charge for paid-peering or impose other interconnection practices. The significance of XO as an independent route into Verizon's network, however, appears to be relatively minor, and rapidly

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organizations, it is undisputed in the record that XO is not among the very largest transit providers in the U.S. *See also infra* notes 157, 161.

[141] XO Communications, *Settlement-Free Peering Policy* (last visited Aug. 25, 2016), www.xo.com/peering.pdf.

[142] XO Communications, *Wholesale Business*, http://www.xo.com/solutions/business/wholesale/. XO further indicates that **[BEGIN CONF. INFO.]** [redacted] **[END CONF. INFO.]** *See* XO July 7, 2016 Response to Information Request at 7.

[143] Public Interest Statement at 3.

[144] 2015 Dyn Report at 2. CAIDA currently ranks Verizon as the 12th largest network. CAIDA, *AS Ranking*, http://as-rank.caida.org/?mode0=as-ranking&data-selected=39.

[145] PeeringDB, *Verizon Digital Media Services (EdgeCast Networks)*, https://www.peeringdb.com/asn/15133.

[146] Verizon July 7, 2016 Response to Information Request at 7. Edge providers who wish to reach Verizon's BIAS subscribers must interconnect with Verizon's network—either directly via Verizon's paid peering programs or indirectly by contracting with CDNs or transit service providers who have negotiated peering arrangements with Verizon. Although Verizon has historically utilized "various types of settlement-free peering agreements," it currently "primarily relies on bilateral interconnection agreements" and paid-peering arrangements under its "Partner Port" and "Cache Port" programs. *See* Verizon July 7, 2016 Response to Information Request at 7; *see also* VZXO-21-00000926, "Verizon Partner Solutions Dedicated Internet Product Plan – 2016," Verizon, at 4; VZXO-10-00000207, "Verizon Interconnect Strategy Solutions for Peering and Content Delivery," Verizon; VZXO-10-00000345, "Verizon Interconnection Overview & Strategy Carrier and Content Delivery," Rudy Gohringer, Verizon, at 14-17.

[147] Press Release, Leichtman Research, *3.1 Million Added Broadband from Top Providers In 2015* (Mar. 11, 2016), http://www.leichtmanresearch.com/press/031116release.html. According to Verizon's Fact Sheet, http://www.verizon.com/about/sites/default/files/Verizon_Fact_Sheet.pdf, Verizon's wireless division also provides voice and data services to approximately 113 million retail wireless subscribers nationwide.

[148] Verizon July 7, 2016 Response to Information Request at 11-12.

[149] DISH Petition at 20-22; *see also*, OTI Comments at 4; Public Knowledge Petition at 4; INCOMPAS Petition at 19; DISH Reply at 17.

diminishing. Based on our analysis of the Applicants' data regarding interconnection capacity,[150] XO currently accounts for only **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**

42. Finally, unlike in prior transactions that combined applicants' BIAS subscriber bases, XO lacks any retail broadband subscribers. It is not an "eyeball" network. Thus, this Transaction will not increase Verizon's already substantial BIAS market share or give it a greater "gatekeeper" role as to BIAS.[152] Insofar as Verizon's ability to negotiate paid peering arrangements stems from its already large subscriber base, the proposed Transaction is unlikely to alter this dynamic. Although we disagree with the Applicants' assertion that there are no relevant differences between independent transit providers and those that also have large BIAS operations,[153] to the extent that competition from independent transit providers will offer a counterweight to the influence of large BIAS providers in the backbone services market, larger transit players are better equipped than XO to perform this function. For the foregoing reasons, we find that the Transaction is not likely to increase Verizon's incentive or ability to engage in potentially harmful interconnection practices.[154]

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[150] According to data submitted by Verizon, [**BEGIN HIGHLY CONF. INFO.]** [redacted] [**END HIGHLY CONF. INFO.]** *See* Letter from Katharine R. Saunders, Associate General Counsel, Verizon, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 16-70 (Aug. 9, 2016); XO-FCC00007085; XO-FCC00007086. These calculations were conducted by identifying Verizon's interconnection partners as primarily backbone service providers, CDNs, or other BIAS providers. These calculations are most likely understated as no data was submitted for Google (capacity which would have been identified as CDN), and providers with diverse offerings of transit service and CDN service, such as Level 3, could not be broken apart. Level 3 was identified as a backbone service provider.

[151] Among other transit providers, XO accounts for only approximately [**BEGIN HIGHLY CONF. INFO.]** [redacted] [**END HIGHLY CONF. INFO.]**. *See supra* note 150.

[152] For example, in *Charter-Time Warner Cable*, the Commission found that the combination of two large residential broadband service providers into the nation's second largest BIAS provider would create a new entity that would be "well positioned to leverage its larger BIAS subscriber base and increased control of interconnection traffic to act as a gatekeeper between edge providers and their customers." *Charter-TWC Order*, 31 FCC Rcd at 6380, para. 108.

[153] *See* Joint Opposition at 20. The Commission previously has explained that large BIAS providers have different incentives than smaller networks and those that rely primarily on buying or selling transit service. *See Charter-TWC Order*, 31 FCC Rcd at 6376-77, paras. 99-100; *Open Internet Order*, 30 FCC Rcd at 5688, para. 198. The Commission further has found that consumers may bear the costs when large BIAS providers seek to extract fees from smaller networks and edge providers in exchange for access to their subscribers. *See, e.g., Charter-TWC Order*, 31 FCC Rcd at 6380, paras. 108-09.

[154] Some parties similarly assert that the Transaction will threaten the open Internet. *See* OTI Comments at 4. Although the Commission has recognized the potential for the interconnection practices of large BIAS providers to harm the open Internet, we limit our analysis to transaction-specific harms. *See Open Internet Order*, 30 FCC Rcd at 5688, para. 198; *Charter-TWC Order*, 31 FCC Rcd at 6380, paras. 108-09. In addition, as we have explained, the Transaction is unlikely to have a material effect on Verizon's incentive or ability to impose paid-peering arrangements on interconnecting networks. *See supra* Section V.B.1. For this reason, we likewise decline to impose any conditions related to the Applicants' interconnection agreements. *See* Letter from Phillip Berenbroick,

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2. Loss of Competition in the Provision of Transit

43. We find that the loss of XO is unlikely to decrease competition in the market for IP transit services generally. Several parties argue that Verizon's purchase of XO will harm horizontal competition in the transit market, a concern related to, but conceptually distinct from, the competitive effects of the proposed Transaction discussed above.[155] Our review of both publicly available information and documentary evidence produced by the Applicants indicates that the loss of XO as a competitor in the transit market is unlikely to decrease competition or raise transit prices.

44. Although the transit market has been marked by increasing consolidation in recent years, transit prices have been declining sharply since the late 1990s.[156] Further, the relative position of XO in the transit services market makes it unlikely that Verizon's purchase of XO will have any effect on transit prices generally.[157] **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** Critically however, XO is not the market leader on transit service pricing, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** [160] Finally, the record reflects that a combination of forces affecting the Internet interconnection ecosystem as a whole, including competition by larger rivals, consolidation, and increasing direct interconnection arrangements between larger edge providers and BIAS providers, are **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** [161] As noted above, XO's transit traffic onto Verizon's network has declined sharply in recent

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Senior Policy Counsel, Public Knowledge, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 16-70, at 2-3 (Oct. 19, 2016) (referencing conditions attached to the Commission's approval of the AT&T-DirecTV and Charter-TWC mergers, which required the combined entities to file copies of their interconnection agreements with the Commission); *see also Charter-TWC Order*, 31 FCC Rcd at 6391, para. 135; *AT&T-DIRECTV Order,* 30 FCC Rcd at 9215, para. 219.

[155] *See, e.g.*, OTI Comments at 5 (arguing that the Transaction will "reduce the options for transit across the Internet backbone"); Public Knowledge Petition at 4 (arguing that the Transaction will "reduce the number of providers in the Internet transit market, potentially raising transit costs for edge providers"). While the previous section dealt with Verizon's ability to raise the fees it charges for interconnection into its network, this section discusses the effect of the Transaction on transit prices in general.

[156] *See* William Norton, *What Are the Historical Transit Pricing Trends?,* DrPeering, http://drpeering.net/FAQ/What-are-the-historical-transit-pricing-trends.php (last visited Sept. 12, 2016). Indeed, transit prices have fallen by more than 90 percent in the last five years alone, despite increasing consumer demand for bandwidth. *Id.*

[157] While XO was recently ranked as the 13th largest global transit network by Dyn in its 2015 Dyn Report, despite being described as having an "extensive footprint in the highly developed US market," XO is not among Dyn's top 5 transit providers in North America. 2015 Dyn Report at 4; Dyn, *A Baker's Dozen, 2015 Regional View*, http://research.dyn.com/2016/04/a-bakers-dozen-2015-regional-view/ (last visited Sept. 13, 2016) (2015 Dyn North America Report).

[158] *See, e.g.*, VZXO-21-00000932, "Verizon Partner Solutions IP Transit & Partner Port PCM Floor Summary," Verizon, at 5-6 (Mar. 2016).

[159] *See, e.g.,* VZXO-21-00000926, "Verizon Partner Solutions Dedicated Internet Product Plan – 2016," Verizon, at 4.

[160] [**BEGIN HIGHLY CONF. INFO.]** [redacted] [**END HIGHLY CONF. INFO.]** *See* VZXO-21-00000932, "Verizon Partner Solutions IP Transit & Partner Port PCM Floor Summary," Verizon, at 5-6 (Mar. 2016).

[161] *See* XO-FCC00015072, [**BEGIN HIGHLY CONF. INFO.]** [redacted]

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years.[162] Overall, we find that this Transaction is unlikely to harm competition in the transit market generally.

VI. ANALYSIS OF POTENTIAL PUBLIC INTEREST BENEFITS

45. We next consider whether the Transaction is likely to generate verifiable, transaction-specific benefits that would otherwise be less likely to occur absent the Transaction.[163] The Applicants claim that the proposed Transaction will result in four distinct benefits.[164] Specifically, Applicants assert that the Transaction will: (1) create synergies in excess of $1.5 billion in operational and economic efficiencies; (2) benefit wireless consumers through enhanced capacity and reliability as Verizon deploys XO's fiber assets in support of developing new 5G technologies and the further densification of its nationwide mobile broadband network; (3) benefit multi-location enterprise and wholesale customers through an expanded Verizon fiber-based IP and Ethernet network that enhances its ability to compete against national and regional high-capacity providers; and (4) benefit XO's customers through gaining access to Verizon's "more extensive" service offerings.[165] Based on our evaluation of the record, we find that the Transaction is likely to produce some net public interest benefits, although not to the extent claimed by the Applicants.

A. Analytical Framework

46. In determining whether approval of a transaction is in the public interest, we evaluate whether the transaction is likely to produce public interest benefits. We apply several criteria in deciding whether each public interest benefit claimed by the Applicants is cognizable. First, each claimed benefit must be transaction specific. That is, the claimed benefit must be likely to occur as a result of the transaction but unlikely to be realized by other practical means having less anticompetitive effect.[166] Second, each claimed benefit must be verifiable. Because much of the information relating to the potential benefits of a transaction is in the sole possession of the Applicants, they have the burden of providing sufficient evidence to support each claimed benefit to enable us to verify its likelihood and magnitude.[167] We will discount or dismiss speculative benefits that we cannot verify.[168] As the Commission explained in the *EchoStar-DIRECTV HDO*, "benefits that are to occur only in the distant

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[redacted] [**END HIGHLY CONF. INFO.]**; 2015 Dyn North America Report; XO-FCC00015072 at 4-9 [**BEGIN HIGHLY CONF. INFO.]** [redacted] [**END HIGHLY CONF. INFO.]**; XO-FCC00015072 at 18 [**BEGIN HIGHLY CONF. INFO.]** [redacted] [**END HIGHLY CONF. INFO.]**.

[162] *See supra* notes 150-51.

[163] *See Charter-TWC Order*, 31 FCC Rcd at 6479, para. 316*; AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 273; *AT&T-BellSouth Order*, 22 FCC Rcd at 5760, para. 200.

[164] Public Interest Statement at 6-12.

[165] *Id*.

[166] *Application of EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation (Transferors) and EchoStar Communications Corporation (Transferee)*, Hearing Designation Order, 17 FCC Rcd 20559, 20630, para. 190 (2002) (*EchoStar-DIRECTV HDO*); *see also Charter-TWC Order*, 31 FCC Rcd at 6479, para. 316; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 273.

[167] *See Charter-TWC Order*, 31 FCC Rcd at 6479, para. 317; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 274; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630, para. 190.

[168] *See Charter-TWC Order*, 31 FCC Rcd at 6479, para. 317; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 274; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630, para. 190.

future may be discounted or dismissed because, among other things, predictions about the more distant future are inherently more speculative than predictions about events that are expected to occur closer to the present."[169] Third, we calculate the magnitude of benefits net of the cost of achieving them.[170] Fourth, benefits must flow through to consumers, and not inure solely to the benefit of the company.[171] For example, we will more likely find marginal cost reductions to be cognizable than reductions in fixed cost because reductions in marginal cost are more likely to result in lower prices for consumers.[172]

47. We apply a "sliding scale approach" to evaluating benefit claims. Under this sliding scale approach, where potential harms appear both substantial and likely, the Applicants' demonstration of claimed benefits must show a higher degree of magnitude and likelihood than the Commission would otherwise demand. On the other hand, where potential harms appear less likely and less substantial, we will accept a lesser showing.[173]

B. Claimed $1.5 Billion in Operational and Economic Efficiencies Resulting from the Transaction

48. Based on our analysis, we find that the Transaction will lead to operational and economic synergies that are likely to be passed on to end users and therefore are cognizable as a public interest benefit of the Transaction, albeit less than the Applicants' claimed $1.5-$2 billion in synergies.[174] As a threshold matter, no commenters addressed Applicants' claimed cost-savings benefits during the comment and reply comment period specified by the Public Notice.[175] We nevertheless must carefully analyze the synergy claims of the Applicants in making our overall public interest determination.

49. Verizon asserts that most of its claimed efficiencies will result from eliminating a portion of "access costs paid to third parties, and by consolidating various network monitoring and support systems, business functions, and finance and accounting processes."[176] Verizon estimates the anticipated synergies that it expects to realize over the next four fiscal years, 2017-2020, in three broad categories: (1) **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** million in **[BEGIN CONF. INFO.]** [redacted] **[END CONF. INFO.]**;[177] (2) **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** million in

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[169] *Charter-TWC Order*, 31 FCC Rcd at 6479, para. 317; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630-31, para. 190. *See AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 274.

[170] *See Charter-TWC Order*, 31 FCC Rcd at 6479, para. 318; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 275; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20630, para. 190.

[171] *See Charter-TWC Order*, 31 FCC Rcd at 6479, para. 318; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237, para. 275.

[172] *See Charter-TWC Order*, 31 FCC Rcd at 6479, para. 318; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237-38, para. 275; *News Corp.-Hughes Order*, 19 FCC Rcd at 611, para. 317; *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20631, para. 191.

[173] *Charter-TWC Order*, 31 FCC Rcd at 6480, para. 320.

[174] Verizon estimates that, "[w]hen fully implemented, the proposed transaction will yield synergies . . . in total expense savings in excess of $1.5 billion on a net present value basis." Public Interest Statement at 11; *see also* Verizon July 7, 2016 Response to Information Request at 27 (citing Exhs. 23ai and 23aiii).

[175] *See supra* note 4. After the comment period closed, Dish submitted an ex parte letter claiming that certain synergies addressed below should be discounted. DISH Oct. 5, 2016 *Ex Parte* Letter at 1-2.

[176] Public Interest Statement at 11-12.

[177] Verizon July 7, 2016 Response to Information Request at 28-29. Verizon allocates this amount as follows: **[BEGIN HIGHLY CONF. INFO.]** [redacted]

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capital synergies;[178] and (3) **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** million **[BEGIN CONF. INFO.]** [redacted] **[END CONF. INFO.]**.[179] Verizon claims that these synergies, some of which will be realized as early as six to nine months from the Transaction closing, will be realized through 2020 and beyond, and as a result, the net present value of these synergies taken into perpetuity totals approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.**].[180]

50. In an *ex parte* letter filed after the close of the comment cycle, DISH argues that certain of Verizon's claimed synergies, such as **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** should be discounted because instead of benefiting the public interest, they would constitute "harms."[181] DISH cites certain of XO's internal planning documents that DISH claims indicate that **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** DISH then points to both Verizon and XO documents that expressly allocate a similar amount as a **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** synergy savings.[183]

51. Based on our review of Verizon's submissions, we agree with Applicants that much of the Applicants' claimed **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** million in estimated non-wage synergies will likely directly lower the marginal cost of providing

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[178] *Id*. at 29-30 (attributing capital avoidance synergies to **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**

[179] *Id*. at 30-31.

[180] *Id*. at 32-34. *See also* Letter from Katharine Saunders, Associate General Counsel, Verizon, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at 1-2 (filed Sep. 19, 2016) (Verizon Sep. 19, 2016 *Ex Parte* Letter).

[181] DISH Oct. 5, 2016 *Ex Parte* Letter at 1-2.

[182] *Id.* at 2-3 (emphasis in original) (citing XO-FCC00000010, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** XO-FCC00000051, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**).

[183] *Id.* at 3 ("The elimination of XO would halt this aggressive, successful expansion in its tracks, extinguishing competition that would have occurred between XO and its competitors, including Verizon, in each of the many buildings that XO would have directly connected to its network absent approval of this transaction.").

service.[184] As noted above, marginal cost savings are more likely to lead to consumer benefits and are thus a public interest benefit of the Transaction.[185]

52. However, we do not agree that the estimated **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** million in fixed capital cost synergies should be considered a public interest benefit. Again, Commission precedent discounts fixed cost savings because they are less likely to be passed on to consumers than marginal cost savings.[186] Moreover, we agree with DISH that we would balance such capital cost savings against the potential harm from the "avoidance" of planned network buildout.

53. Although some portion of the Applicants' estimated **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** million in **[BEGIN CONF. INFO.]** [redacted] **[END CONF. INFO.]** synergies could ordinarily be counted as a public interest benefit, Verizon failed to specifically identify which portions of the savings are marginal cost savings or capital cost savings,[187] and we therefore cannot credit them. In addition to the cost saving synergies discussed above, Verizon acknowledges a one-time estimated **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** million non-recurring integration cost offset that it agrees must be applied to the overall synergies we accept.[188]

54. Finally, the Commission has consistently rejected cost savings claims beyond the foreseeable future as being too speculative, especially given the continuing technological transformation that characterizes the communications industry.[189] Accordingly, we do not accept Verizon's "in perpetuity" approach and instead determine the value of the public interest benefit only through the specific four-year period that the Applicants identified in their calculations.

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[184] *See supra* note 177 (explaining the specific dollar allocations to the specific areas where the savings are expected to occur). Some of these savings, however, appear to be in general corporate overhead, and thus are unlikely to affect the marginal cost of Verizon's products.

[185] *See, e.g., Charter-TWC Order*, 31 FCC Rcd at 6570, para. 318; *Altice-Cablevision Order*, 31 FCC Rcd at 4386, para. 46; *Applications of AT&T Inc. and Deutsche Telekom AG For Consent To Assign or Transfer Control of Licenses and Authorizations*, Order, 26 FCC Rcd 16184, 16185, para. 4 (WTB 2011) (citing Staff Memorandum at paras. 227-29) (stating that "the Commission is more likely to find reductions in marginal costs cognizable as compared to reductions in fixed costs, because reductions in marginal cost are more likely to result in lower prices").

[186] *See, e.g., Charter-TWC Order*, 31 FCC Rcd at 6596, para. 413; *AT&T-DIRECTV Order*, 30 FCC Rcd at 9237-38, para. 275 (stating that "we generally find reductions in fixed cost to be less cognizable than reductions in marginal costs because the former are less likely to result in lower prices for consumers") (citing *General Motors Corp. and Hughes Electronics Corp., Transferors, and the News Corporation, Transferee*, Memorandum Opinion and Order, 19 FCC Rcd 473, 611, para. 317 (2004); and *EchoStar-DIRECTV HDO*, 17 FCC Rcd at 20631, para. 191).

[187] *See, e.g., AT&T-DIRECTV Order* 30 FCC Rcd at 9244, para. 294 (discounting claimed cost savings from reductions in duplicative customer call center operations, IT systems, and other general administrative and headquarter functions because AT&T did not adequately explain which of these savings were marginal cost savings and which were capital cost savings); *Verizon-MCI Order*, 20 FCC Rcd at 18536, para. 211 (stating that "because most of these positions are overhead and thus represent savings in fixed costs, we will not give them the same weight as savings in marginal cost (which are more likely to flow through in the form of retail price reductions).").

[188] Verizon Sep. 19, 2016 *Ex Parte* Letter at 1-2 (acknowledging the Transaction-related one-time offset and breaking it down as follows: **[BEGIN HIGHLY CONF INFO.]** [redacted] **[END HIGHLY CONF INFO.]**

[189] *See e.g., Verizon-MCI Order*, 20 FCC Rcd at 18536-37, paras. 210-14 (rejecting the inclusion of claimed operational savings in perpetuity and only including claimed operation savings for a four-year period because "predictions about the more distant future are inherently more speculative than predictions about events that are expected to occur closer to the present"); *AT&T-BellSouth Order*, 22 FCC Rcd at 5767, para. 217.

C. Claimed Non-Synergy Public Interest Benefits

1. Verizon's Deployment of XO's Fiber Assets in Support of 5G Technologies and Further Densification of its Cellular Network

55. We conclude that public interest benefits are likely to be realized through Verizon's acquisition of XO's fiber assets based on the introduction of innovative 5G services and the densification of its wireless broadband network.[190] Based on our analysis below, we ascribe medium weight to this benefit, as we find that the benefit is only partially transaction specific and that Verizon did not provide sufficiently quantifiable evidence to determine its full extent.[191]

56. Applicants claim that Verizon will use XO's fiber assets for important backhaul and network densification purposes that will provide more capacity and enhanced network reliability to wireless consumers and also pave the way for Verizon to more effectively deploy 5G technology.[192] Applicants assert that XO's lit and dark fiber assets offer significant underutilized capacity and coverage that will enhance Verizon's ability to deploy substantial numbers of new macro sites and small cells over an expanded network footprint.[193] Applicants further assert that the ability to connect new small cells to Verizon's core network will "facilitate and expedite Verizon's future 5G network deployment because 5G technology is designed to be operated using smaller, more densely packed cell sites."[194]

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[190] *See* VZXO-04-00001666, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** *See also* **V**ZXO-02-000003420, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**

[191] *See, e.g.,* Letter from Bryan Tramont and Adam Krinsky, Counsel to Verizon, and Thomas Cohen, Counsel to XO Holdings, to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at Attach. Declaration of Roland W. Hicks, Jr., at 8 (filed Sep. 30, 2016) (XO/Verizon Sep. 30, 2016 *Ex Parte* Letter) ("we can *potentially* use XO fiber in the targeted trial areas for fronthaul to connect 5G small cell antennas and baseband units. We *could* also use the XO fiber for backhaul from a 5G baseband unit back to the core network and/or for transport between switching and distribution centers in the core network.) (emphasis added). *See also* Letter from Thomas Jones, Counsel to INCOMPAS and Earthlink, Inc., to Marlene Dortch, Secretary, FCC, WC Docket No. 16-70, at 4-5 (filed Oct. 18, 2016) (INCOMPAS-Earthlink *Ex Parte* Letter) ("we observed that Verizon still does not appear to have developed plans to use XO's metro fiber assets within the Verizon incumbent LEC region for any legitimate business purpose." INCOMPAS and Earthlink note that **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** *Id.*).

[192] Public Interest Statement at 1, 6. *See also* XO/Verizon Sep. 30, 2016 *Ex Parte* Letter at 2.

[193] Public Interest Statement at 10; Verizon July 7, 2016 Response to Information Request at 43. According to Verizon, one of the strategic rationales for the proposed Transaction **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO**

[194] Verizon July 7, 2016 Response to Information Request at 43; *see also* DISH Petition at 2 ("Carriers are also working to deploy small cells to 'densify' their networks to support both increased demand and 5G technologies. With many more cells comes a much greater need for backhaul, both fiber and wireless.").

57. Public Knowledge, however, argues that Verizon's claimed wireless network benefits are not transaction specific, claiming that Verizon was planning on deploying 5G before it agreed to acquire XO.[195] We disagree, as we find that Verizon's acquisition of XO's fiber assets, that might otherwise be unused, will help Verizon actually implement its 5G plans.[196] Specifically, we find that Verizon's ownership of XO's fiber facilities will better enable Verizon to control and manage critical fiber assets,[197] not only for 5G deployment,[198] but also to meet existing consumer demand.[199] The XO fiber assets being acquired pursuant to this Transaction will further Verizon's 5G technology plans by providing robust and widely available wireline backhaul capability in areas where Verizon does not have fiber facilities to connect wireless cells to Verizon's core network, a necessary requirement for a robust 5G network.[200] Specifically, the Transaction will allow Verizon to more quickly deploy 5G than if it had to build or lease the fiber assets itself.[201] Facilitating Verizon's wireless network densification capability, in turn, leads to the dual benefit of enhancing the quality and resiliency of Verizon's nationwide mobile broadband network to better serve consumers and enabling Verizon, a key player in the rollout of 5G technology, to more rapidly advance this important Commission policy priority for the general benefit of all consumers.[202] The Commission has acknowledged Verizon's aggressive schedule for implementing 5G

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[195] *See, e.g.,* Public Knowledge Reply at 8-9 (quoting Statement of Fran Shammo, Verizon Communications Executive Vice-President and Chief Financial Officer, Verizon Communications Q4 2015 Earnings Call, at 10 (Jan. 21, 2016)).

[196] Public Interest Statement at 10. Even DISH, which opposes the Transaction, points out that the "fiber and wireless backhaul assets the Applicants would acquire will be critical to support the very low latency and high data rate targets of 5G technologies." DISH Petition at 2-3. DISH also states that "[b]ackhaul costs represent approximately 30 percent of the operating costs of operating a wireless service, so the ability to self-supply backhaul presents a significant competitive advantage." *Id.* at 18 (footnote omitted). In addition, to the extent Verizon uses XO's fiber assets to self-supply its own fiber backhaul needs, the competitive supply of fiber that Verizon would otherwise need to lease or acquire in the market to serve its internal needs would remain available to other competing wireless providers and emerging 5G technology developers for their use.

[197] *See infra* para. 63 (Verizon's explanation of the benefits of owning versus leasing critical fiber infrastructure).

[198] Public Interest Statement at 8. *See also* XO/Verizon Sep. 30, 2016 *Ex Parte* Letter, Attach. Decl. of Roland W. Hicks, Jr. at 2 **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** According to Verizon's Roland Hicks, Jr., "[t]hese figures are projected to increase each year to meet the demands of our customer base and as we deploy 5G on a commercial basis." *Id.* at 3.

[199] *See, e.g.,* XO/Verizon Sep. 30, 2016 *Ex* Parte Letter, Attach. Decl. of Roland W. Hicks, Jr. at 6 ("XO has fiber located in a number of cities, including some that are initially targeted for potential 5G pre-commercial market trials in 2017."). According to Verizon's Roland Hicks, Jr., "XO's fiber facilities will allow us to expand the coverage area in one test market by at least **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** beyond what we had originally planned. A third example is provided as well, showing how XO's fiber would aid Verizon's small cell deployment – in this case providing approximately **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]** of the facilities we otherwise might have built or leased, meaning we can deploy small cells that much more broadly and quickly." *Id.* at 7.

[200] *See, e.g.,* Naga Bhushan, Junyi Li, Durga Malladi, Rob Gilmore, Dean Brenner, Aleksandar Damnjanovic, Ravi Teja Sukhavasi, Chirag Patel, and Stefan Geirhofer, "Network Densification: The Dominant Theme for Wireless Evolution into 5G," IEEE Communications Magazine, at 87 (Feb. 2014.

[201] *See* Verizon Sep. 30, 2016 *Ex Parte* Letter, Attach. Decl. of Roland W. Hicks, Jr. at 2.

[202] *See, e.g., Use of Spectrum Bands Above 24 GHz For Mobile Radio Services et al.,* GN Docket No. 14-177 et al., Report and Order and Further Notice of Proposed Rulemaking, FCC 16-89, para. 1 (July 14, 2016) (*Spectrum Frontiers Order*) ("Today, we take a significant step towards securing the Nation's future in the next generational evolution of wireless technology to so-called 5G."); *see also Spectrum Frontiers Order,* Statement of Chairman Tom Wheeler ("Without question, 5G is a national priority. The interconnected world of the future will be the result of decisions we make today."). *See also* Tom Wheeler, Chairman, FCC, Remarks at the CTIA Super Mobility Show 2016, Las Vegas, Nevada (Sep. 7, 2016) ("5G will require a lot more cells, particularly at the higher frequencies.

(continued….)

technology and the ongoing 5G field trials being conducted by its wireless division in an effort to develop 5G technologies and solutions that will deliver next-generation services to American consumers, game-changing new features, applications, wearables and sensors, and the benefits of the Internet of Things and a fully connected society.[203]

58. However, we find that the full magnitude of this benefit is unclear. As some commenters point out, (1) Verizon was planning on deploying a 5G wireless network before it agreed to acquire XO, and (2) it has alternatives to purchasing XO – it could lease fiber lines to gain access for 5G cell sites or build those lines itself. DISH also urges us to reject this benefit because "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."[204] Nevertheless, we find that the proposed Transaction will advance the public interest by expanding the reach and capacity of Verizon's owned fiber network with otherwise substantially underutilized fiber assets that are critically necessary for important backhaul and network densification purposes.[205]

59. For the reasons set forth above, Verizon's acquisition of XO's underutilized fiber assets will result in tangible, transaction-specific public interest benefits to wireless broadband consumers to which we ascribe medium weight.

2. Verizon's Ability to Better Serve Multi-Location Enterprise Customers

60. We find that Verizon's acquisition and control of XO's fiber assets will enable Verizon to better serve new and existing multi-location enterprise and wholesale customers. Applicants claim that the proposed Transaction will boost Verizon as a national and regional competitor in the high-capacity fiber services market, thus enhancing competition in the multi-location enterprise and wholesale customer segment[206] and help Verizon meet growing demand by enterprise and wholesale customers for bandwidth and reliability, which are key factors in serving multi-location users.[207]

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These small cell sites will need to be connected, so we'll need a lot more backhaul. In many areas, competition in the supply of backhaul remains limited, and that can translate into higher costs for wireless networks, higher prices for consumers, and an adverse impact on competition . . . . There must be fair backhaul prices and availability if we are to connect all these small cells.").

[203] *See Verizon-Nextlink Leasing Order*, DA 16-838, at paras. 23, 25. In addition, in order to advance its 5G plans, Verizon Wireless is leasing 5G-compatible spectrum in the 28 and 39 GHz bands from Nextlink Wireless, a wholly-owned subsidiary of XO Holdings. *Id.*

[204] DISH Petition at 10; *id.* at 17-20; DISH Reply at 20-21.

[205] As we have noted, *see supra* para. 20, the record reflects that the majority of XO's metro fiber is unlit, or 'dark,' and the Transaction will enable it to be used promptly for Verizon's network densification and 5G trials, providing near term public benefits rather than speculating about *potential* benefits that *might* occur if XO had eventually decided to use its fiber facilities for wireless backhaul services at some future time *See* Public Interest Statement at 10; Joint Opposition at 23; Letter from Thomas W. Cohen, Counsel to XO, to Marlene H. Dortch, Secretary, FCC, at 2 (filed Sep. 14, 2016). And as XO's documentary evidence reflects: **[BEGIN HIGHLY CONF. INFO**] [redacted] **[END HIGHLY CONF. INFO**]. *See* XO-FCC00019621, **[BEGIN HIGLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**; *see also supra* note 122.

[206] *See, e.g.,* Public Interest Statement at 7-8 (according to Applicants, the proposed Transaction allows Verizon to better "compete with leading national and regional high-capacity service providers – especially cable companies, but also traditional incumbent and competitive telephone companies, wireless providers, and other non-traditional players, particularly in central business districts"). *See also* Sean Buckley, *Verizon to challenge cable operators with 'Titan' business Ethernet program,* FierceTelecom (Mar. 21, 2016) ("Unlike the near-ubiquitous nature of

(continued….)

61. Applicants claim that Verizon's acquisition of XO's fiber-based IP and Ethernet networks will deepen and expand Verizon's fiber facilities to better serve its enterprise and wholesale customers, especially in areas outside of Verizon's incumbent LEC footprint.[208] According to Applicants, of the approximately 25,600 fiber route miles constituting XO's inter-city and metro fiber networks, the vast majority are located outside Verizon's incumbent LEC footprint.[209] In XO's top 20 fiber areas, the proposed Transaction will expand Verizon's owned fiber by more than 5,000 miles, of which nearly 85 percent is located outside of Verizon's remaining incumbent LEC footprint, and, in the twenty densest counties served by XO outside of Verizon's incumbent LEC footprint, the Transaction will expand Verizon's on-net building inventory by over 2,500 buildings.[210] With the acquisition of XO's fiber facilities, Verizon asserts it can offer multi-location customers its on-net services and the resulting customer-facing benefits discussed below.[211] We conclude that the Transaction likely will result in a stronger competitive provider to the incumbent LECs, large cable companies, and other nationwide competitive providers in the wholesale and enterprise BDS market.[212] This finding is consistent with Commission precedent concluding that the combination of facilities-based competitive LECs would result in a stronger competitor and provide a transaction-specific benefit to consumers.[213] However, while no party disputes the value of this benefit, we ascribe it relatively low weight since Verizon did not provide sufficiently quantifiable evidence to determine its full extent.[214]

62. Although the proposed Transaction enhances Verizon's ability to compete for multi-location enterprise customers who seek high-capacity fiber services, we recognize that Verizon could

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cable HFC network, Verizon's ability to deliver services like Fiber to the Internet is limited to how many buildings it has on its network. However, the service provider will bolster its on-net footprint when it completes its acquisition of XO Communications' fiber network next year—a deal which will give the service provider an additional 4,000 on-net buildings.").

207 Public Interest Statement at 8.

208 Public Interest Statement at 1, 6. *See also* Verizon July 7, 2016 Response to Information Request at 37. Applicants provided a list of the thousands of businesses with offices in buildings nationwide that are served by XO's fiber facilities, but not by Verizon's fiber facilities. *Id*. at Exh. 24bi. Verizon submits there are approximately **[BEGIN CONF. INFO.]** [redacted] **[END CONF. INFO.]** businesses in those buildings that already are Verizon customers in some capacity. *Id.* at 41.

209 Verizon July 7, 2016 Response to Information Request at 41.

210 Public Interest Statement at 7.

211 Verizon July 7, 2016 Response to Information Request at 41; *see also infra* para. 63.

212 *See* discussion in Section V.A.2. (finding that the Transaction will result in Verizon being a stronger competitive provider outside of its incumbent LEC region).

213 *See Qwest-CenturyLink Order*, 26 FCC Rcd at 4199, para.15l (describing the potential competitive effects of an incumbent LEC-competitive LEC combination outside the incumbent LEC's territory and stating that "[r]ather than harming competition, we believe that the combination of the Applicants' facilities in these markets could result in a stronger competitive LEC and enhance the merged company's ability to compete against the incumbent LEC"); *see also Level 3-tw telecom Order,* 29 FCC Rcd at 12842, para. 3 (stating "the transaction is likely to increase competition by resulting in a combined company with a larger network footprint and strengthened ability to compete for business customers.").

214 While the loss of XO as an independent provider of BDS and other commercial services does not result in the type of competitive harm to the public interest that warrants a Commission-ordered remedy, *see supra* Section V generally, this fact does not preclude us from considering the reduction in the actual number of competitive providers in ascribing weight to related benefits claims under our analytical framework. *See, e.g.*, VZXO-02-00000303, **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**

have leased XO's fiber services on a wholesale basis to serve multi-location customers.[215] Verizon, however, identifies numerous factors that demonstrate how owning XO's fiber assets is superior to leasing them, thus resulting in transaction-specific benefits.

63. First, Verizon can simplify and expedite the fiber ordering process for customers in buildings served by XO's metro fiber (but not currently served by Verizon fiber).[216] Second, Verizon can improve the fiber provisioning process since it can "better control the timing for service deployments" and can avoid multiple truck rolls when provisioning on-net services since Verizon will not be restricted by the provisioning schedules of its lessor carriers.[217] Third, Verizon can offer "more tailored and flexibly managed service offerings to on-net customers" due to its increased control over the underlying facilities used to serve such customers.[218] Fourth, Verizon can better ensure diverse paths to customer premises for customers seeking route diversity for their communications services.[219] Fifth, Verizon can provide more resilient service due to: (1) fewer (if any) handoffs to other carriers;[220] (2) a streamlined trouble ticket process,[221] and (3) the ability to more quickly and precisely detect and resolve service disruptions.[222] Verizon further explains how owning the fiber, rather than merely leasing it, is far more cost-effective.[223] Finally, we note that to some extent, and for some of the reasons expressed by Verizon, multi-location customers prefer that their providers own the facilities on which they offer service.[224] Based on the above, we find Verizon's arguments with respect to the specific and identifiable public interest benefits of owning XO's fiber persuasive, and therefore ascribe some credit as a Transaction benefit to Verizon's planned use of XO's fiber facilities to better compete for multi-location customers.

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[215] *See, e.g.,* INCOMPAS-Earthlink *Ex Parte* Letter at 2-3 n.7.

[216] Verizon July 7, 2016 Response to Information Request at 37 ("no longer need to evaluate the availability, characteristics, and pricing of leased access to these buildings as part of the customer ordering process… will generally be able to provide immediate firm order confirmation… eliminating delay.").

[217] Verizon July 7, 2016 Response to Information Request at 38.

[218] Verizon July 7, 2016 Response to Information Request at 38 (will enable Verizon to provide complete maintenance, surveillance, and response to customer issues without the involvement of third-party providers, allowing for faster identification and remediation of issues that may arise.")

[219] Verizon July 7, 2016 Response to Information Request at 38 (reliance on leased fiber to gain access to a building has limited visibility regarding the path used… resulting in unintended route redundancy and undermining route diversity.").

[220] Verizon July 7, 2016 Response to Information Request at 38 (more handoffs "may create an increased risk of service disruptions and generally require the involvement of multiple carriers in the trouble ticket process, which can delay and impair customer service and resolution.").

[221] Verizon July 7, 2016 Response to Information Request at 38-39 (leading to more quickly detecting and resolving disruptions to on-net services from its extensive network operating centers, while "a provider relying on leased fiber must consult with another carrier (and sometimes multiple carriers) to determine the cause of service disruptions reported by off-net customers and must rely on third-party carriers' trouble ticket resolution process.").

[222] Verizon July 7, 2016 Response to Information Request at 39 (less control over service interruptions when relying on other carriers to conduct maintenance and repairs).

[223] Verizon July 7, 2016 Response to Information Request at 39 (explaining that, among other things, construction costs can be capitalized over multiple years (whereas leased fiber costs are expensed annually), and Verizon can better control owned fiber costs (whereas leased fiber agreements contain rent escalators and fixed lease terms that must be renegotiated)).

[224] For these reasons, carriers prefer to own their own facilities. **[BEGIN HIGHLY CONF. INFO.]** [redacted] **[END HIGHLY CONF. INFO.]**. *See supra* para. 32 & note 102.

3. Benefits to Current XO Customers by Gaining Access to Verizon's Full Range of Services

64. We give minimal weight to Applicants' claim that the proposed Transaction will give XO customers access to Verizon's more extensive product family[225] because Applicants failed to give us sufficient information to verify the magnitude or likelihood of this claimed benefit. For example, Verizon states that it has not yet determined "the specific additional services Verizon will be able to offer existing XO customers post-closing."[226] Without specific commitments from Verizon with regard to the additional services, and the price at which those services will be offered to XO's existing customers, we are not able to verify the benefit. In addition, this benefit would accrue only to those XO customers who are both outside of Verizon's incumbent LEC territory and not in an out-of-territory building currently served by Verizon. Other XO customers already have access to Verizon's products but choose not to purchase them.

VII. BALANCING POTENTIAL PUBLIC INTEREST HARMS AND BENEFITS

65. Based on our analysis above, we conclude that the public interest benefits claimed by the Applicants on balance outweigh the potential for public interest harms resulting from the proposed Transaction. In applying our "sliding scale approach" to evaluating the benefits of a transaction,[227] we will accept a lesser showing on the scope of the claimed benefits when, as here, the potential harms appear less likely and less substantial. Based on our findings herein that the proposed Transaction likely will not cause material public interest harms, we find that the relatively modest benefits of the Transaction resulting from certain credited operational and economic synergies, along with the 5G and wireless backhaul enhancements, increased multi-location customer competition, and minimal benefit to current XO customers gaining first-time access to Verizon services, outweigh any public interest harms. Consequently, we find that approval of the Transaction is in the public interest.

VIII. CONCLUSION

66. We conclude that granting the Applications serves the public interest. We have carefully evaluated the proposed Transaction, in light of the extensive documentary record, the related pleadings from commenters and the Applicants, and other submissions in this proceeding. After a thorough review of this record, we conclude that the Applicants are fully qualified to transfer the licenses in Appendix A and that the public interest benefits promised by the proposed Transaction are sufficient to support the grant of the Applications.

IX. ORDERING CLAUSES

67. Accordingly, having reviewed the record in this matter, **IT IS ORDERED**, pursuant to sections 4(i) and (j), 5(c), 214(a), 214(c), 303(r), 309, and 310(d) of the Act, 47 U.S.C. §§ 154(i), 154(j), 155(c), 214(a), 214(c), 303(r), 309, 310(d), and sections 0.51, 0.91, 0.131, 0.261, 0.291, and 0.331 of the Commission's rules, 47 CFR §§ 0.51, 0.91, 0.131, 0.261, 0.291, 0.331, that the Applications to transfer control of the licenses and authorizations listed in Appendix A **ARE GRANTED**.

68. **IT IS FURTHER ORDERED** that the above grant shall include authority for Verizon, consistent with the terms of this Memorandum Opinion and Order, to acquire control of: (1) any licenses and authorizations issued to XO during the Commission's consideration of the Applications and the period required for consummation of the Transaction following approval; (2) any applications that have been filed by XO or its subsidiaries that are pending at the time of consummation of the Transaction; and

[225] Public Interest Statement at 1, 7, 12. *See also* Verizon July 7, 2016 Response to Information Request at 15 Exh. 16 (list of products that Verizon will be able to offer to XO customers that XO currently does not provide").

[226] Verizon July 7, 2016 Response to Information Request at 15.

[227] *See Charter-TWC Order*, 31 FCC Rcd at 6480, para. 319; *see supra* para. 47.

(3) licenses that may have been inadvertently omitted from the Applications that are held by XO at the time of consummation of the Transaction.

69. **IT IS FURTHER ORDERED**, pursuant to sections 4(i) and (j), 5(c), 309, and 310(d) of the Act, 47 U.S.C. §§ 154(i), 154(j), 155(c), 309, 310(d), that the Petitions to Deny filed by DISH Network Corporation, INCOMPAS, and Public Knowledge, and all similar petitions, **ARE DENIED**.

70. **IT IS FURTHER ORDERED** that this Memorandum Opinion and Order **SHALL BE EFFECTIVE** upon release, in accordance with section 1.102(b)(1) of the Commission's rules, 47 CFR § 1.102(b)(1). Petitions for reconsideration under section 1.106 of the Commission's Rules, 47 CFR § 1.106, or applications for review under section 1.115 of the Commission's rules, 47 CFR § 1.115, may be filed within thirty days of the release date of this Memorandum Opinion and Order.

FEDERAL COMMUNICATIONS COMMISSION

Matthew S. DelNero
Chief, Wireline Competition Bureau

Mindel De La Torre
Chief, International Bureau

Jon Wilkins
Chief, Wireless Telecommunications Bureau

APPENDIX A

Applications to Transfer Control of Licenses and Authorizations Held by XO

SECTION 214 AUTHORIZATIONS

A. International

File Number	Authorization Holder	Authorization Number
ITC-T/C-20160304-00114	XO Communications, LLC	ITC-214-20001117-00674

B. Domestic

Applicants filed an application to transfer control of domestic section 214 authority in connection with the proposed Transaction.

SECTION 310(d) APPLICATION

A. Application for Transfer of Control of Wireless Authorizations

Application File Number	Licensee	Lead Call Sign
ULS File No. 0007166982	XO Communications, LLC	WQHF652