

FACT SHEET*

Modernizing Unbundling and Resale Rules in an Era of Next-Generation Networks and Services

Notice of Proposed Rulemaking – WC Docket No. 19-308

Background: Before 1996, local telephone companies (known as incumbent local exchange carriers or LECs) held a monopoly on local telephone service. Congress passed the Telecommunications Act of 1996 to open these local markets to competition, requiring incumbent LECs to (1) unbundle and open their networks to competitors at cost-based rates, and (2) offer for resale at wholesale rates telecommunications services that the incumbent LEC offers at retail. At the same time, Congress also left it to the FCC to determine which network elements should be subject to unbundling and gave the FCC the authority to forbear from these obligations if they became no longer necessary in light of changes in the industry.

Over the last 23 years, the communications marketplace has transformed, with robust intermodal voice and broadband competition in many areas of the country. This *Notice of Proposed Rulemaking (Notice)* would propose to update the FCC’s unbundling and resale rules to reflect these marketplace realities and to remove unnecessary regulatory burdens that can inhibit the deployment of, and transition to, next-generation networks. At the same time, recognizing that unbundling requirements may have continued benefits in providing broadband access to consumers where facilities-based competition is less likely to occur, the *Notice* would propose to maintain rules regarding mass market broadband-capable loops in rural areas.

What the Notice Would Do:

- Propose removing certain unbundling requirements, including those for:
 - DS1 and DS3 loops in counties and study areas deemed competitive in the *BDS Order* and the *Rate-of-Return BDS Order*, with an exemption for DS1 loops used to provide residential broadband service and telecommunications service in rural areas;
 - DS0 loops in urban census blocks;
 - Narrowband voice-grade loops; and
 - Dark fiber transport in wire centers within a half-mile of alternative fiber.
- Propose removing avoided-cost resale requirements in non-price cap incumbent LEC service areas.

* This document is being released as part of a “permit-but-disclose” proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in WC Docket No. 19-308, which may be accessed via the Electronic Comment Filing System (<https://www.fcc.gov/ecfs/>). Before filing, participants should familiarize themselves with the Commission’s ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR § 1.1200 *et seq.*

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

In the Matter of
Modernizing Unbundling and Resale
Requirements in an Era of Next-Generation
Networks and Services
WC Docket No. 19-308

NOTICE OF PROPOSED RULEMAKING*

Adopted: [] Released: []

Comment Date: [30 days after date of publication in the Federal Register]
Reply Comment Date: [45 days after date of publication in the Federal Register]

By the Commission:

TABLE OF CONTENTS

Table with 2 columns: Section Title and Page Number. Includes sections like I. INTRODUCTION, II. BACKGROUND, III. DISCUSSION, IV. PROCEDURAL MATTERS, and V. ORDERING CLAUSES.

* This document has been circulated for tentative consideration by the Commission at its November 2019 open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to change.

APPENDIX A – Draft Proposed Rules for Public Comment

APPENDIX B – Initial Regulatory Flexibility Analysis

I. INTRODUCTION

1. Prior to enactment of the Telecommunications Act of 1996 (the 1996 Act),¹ local telephone companies (known as incumbent local exchange carriers or incumbent LECs) held a monopoly on local telephone service.² Congress passed the 1996 Act to open these local markets to competition and required incumbent LECs to (1) unbundle and open their networks to competitors at cost-based rates, and (2) offer for resale at wholesale rates telecommunications services that the incumbent LEC offers at retail.³ At the same time that it established these local market-opening provisions, Congress also left it to the Commission to determine which network elements should be subject to unbundling obligations,⁴ and gave the Commission the authority to forbear from these and other regulatory obligations if they became no longer necessary in light of changes in the industry.⁵

2. Over the last 23 years, the communications landscape has dramatically transformed, with both the voice and broadband marketplaces replete with competition from a multitude of providers using a variety of technologies and offering communications capabilities and services unforeseen in 1996. These substantial marketplace changes warrant reexamination of the Commission's unbundling and resale rules to ensure how best to further the goals of the 1996 Act in a modern era.

3. Earlier this year, we granted incumbent LECs relief from certain unbundling and resale requirements that no longer served the public interest and were unnecessary to protect consumers.⁶ We now seek comment on proposals to update incumbent LECs' remaining unbundling and resale obligations to reflect the marketplace realities of intermodal voice and broadband competition. We make these proposals consistent with our continuing efforts to remove unnecessary regulatory burdens that can inhibit the deployment of, and transition to, next-generation networks and services that benefit American consumers and businesses. At the same time, recognizing that unbundling requirements may have continued benefits in promoting broadband access to consumers where facilities-based competition is less likely to occur, we propose to maintain rules regarding mass market broadband-capable loops in rural areas.

II. BACKGROUND

4. Prior to 1996, incumbent LECs dominated the local voice marketplace and held government-sanctioned monopolies in many areas.⁷ Beginning in 1996, Congress and the Commission

¹ The Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, amending the Communications Act of 1934 (the Act) (codified at 47 U.S.C. § 151 *et seq.*).

² See *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 et al.*, First Report and Order, 11 FCC Rcd 15499, 15505, para. 1 (1996) (subsequent history omitted) (*First Local Competition Order*).

³ 47 U.S.C. §§ 251(c)(3), (c)(4), 252(d)(1).

⁴ *Id.* §§ 251(c)(3), 252(d)(1).

⁵ *Id.* § 160(a); see also *Petition to Establish Procedural Requirements to Govern Proceedings for Forbearance Under Section 10 of the Communications Act of 1934, as Amended*, Report and Order, 24 FCC Rcd 9543, 9546, para. 5 (2009) (citing legislative history).

⁶ See *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141 et al., Report and Order on Remand and Memorandum Opinion and Order, 34 FCC Rcd 5767 (2019) (*BDS Remand Order/UNE Transport Forbearance Order*); *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141, Memorandum Opinion and Order, 34 FCC Rcd 6503, 6508-09, paras. 11-12 (2019) (*UNE Analog Loop and Avoided-Cost Resale Forbearance Order*).

⁷ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 371 (1999).

imposed mandatory unbundling and resale obligations on incumbent LECs in an effort to promote local market competition by giving competitors access to key inputs deemed necessary for market entry at that time.⁸ At the same time, the Commission expressed its preference for facilities-based competition and has repeatedly recognized that unbundling obligations can reduce incentives for incumbents and competitors alike to deploy next-generation networks.⁹ The Commission has therefore continued to update incumbent LEC unbundling and resale obligations to reflect the changing nature of the communications marketplace over the past 23 years.

A. The 1996 Act's Market-Opening Provisions

5. When Congress enacted the 1996 Act, incumbent LECs controlled 99.7% of the local voice marketplace by virtue of their “high quality, reliable, redundant local networks that can provide virtually ubiquitous service,” which allowed them to “serve a new customer at a much lower incremental cost than could a new entrant.”¹⁰ The 1996 Act imposed a number of obligations on incumbent LECs to open this once-monopolized market to competitive entrants, most notably obligations to make available certain network elements to other carriers on an unbundled, rate-regulated basis and to make available certain services for resale on a rate-regulated basis.¹¹

6. *Unbundled Network Elements.* Incumbent LECs’ unbundling obligations are embodied in section 251(c)(3) of the Act.¹² Congress left it to the Commission to determine which network elements should be subject to unbundling requirements,¹³ which has resulted in the Commission creating a list of UNEs that competitive LECs can lease from incumbent LECs to provide their own retail services. However, section 251(d)(2) requires that the Commission consider, “at a minimum,” whether “the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.”¹⁴

7. The impairment inquiry considers whether a hypothetical “reasonably efficient competitor” would be impaired when lack of access to a particular network element creates a barrier to entry that renders entry uneconomic.¹⁵ The Commission presumes that the reasonably efficient competitor would use “reasonably efficient technologies and take advantage of existing alternative

⁸ See 47 U.S.C. § 251; *First Local Competition Order*, 11 FCC Rcd at 15505, para. 1.

⁹ See, e.g., *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers et al.*, CC Docket Nos. 01-338 et al., Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 16984, para. 3 (2003) (*Triennial Review Order*); *Unbundled Access to Network Elements*; *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand, 20 FCC Rcd 2535, para. 2 (2005) (*Triennial Review Remand Order*), *aff'd*, *Covad Commc'ns Co. v. FCC*, 450 F.3d 528 (D.C. Cir. 2006); *UNE Transport Forbearance Order*, 34 FCC Rcd 5767; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd 6503.

¹⁰ *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, Notice of Proposed Rulemaking, 11 FCC Rcd 14171, 14174-75, para. 6 (1996) (*First Local Competition NPRM*).

¹¹ 47 U.S.C. § 251(c)(3)-(4); *First Local Competition NPRM*, 11 FCC Rcd at 14177, para. 10.

¹² 47 U.S.C. § 251(c)(3).

¹³ *Id.* § 251(d)(2).

¹⁴ *Id.* The statute also requires that the Commission determine whether access to proprietary network elements is “necessary.” *Id.* However, we do not currently require incumbent LECs make any proprietary network elements available on an unbundled basis.

¹⁵ *Triennial Review Remand Order*, 20 FCC Rcd at 2547, para. 24, 28 (citing *United States Telecom Ass'n v. FCC*, 359 F.3d 554, 572 (D.C. Cir. 2004) (*USTA II*)); see also *Triennial Review Order*, 18 FCC Rcd at 17035, para. 84.

facilities deployment where possible.”¹⁶ The inquiry makes reasonable inferences about competition, including that if competitive providers have successfully entered using their own facilities in one market, other providers could enter similar markets on a similar basis.¹⁷ The Commission’s impairment determinations also account for the existence of intermodal competition, as “[t]he fact that an entrant has deployed its own facilities – regardless of the technology chosen – may provide evidence that any barriers to entry can be overcome.”¹⁸

8. Even if impairment has been established, the courts and the Commission have interpreted the “at a minimum” language in section 251(d)(2) to allow the Commission to consider other factors “rationally related to the goals of the Act.”¹⁹ The Commission has found that broadband deployment is one such goal.²⁰

9. In implementing section 251(d)(2) and adopting unbundling rules, the Commission noted at the time that “the ability of requesting carriers to use unbundled network elements . . . is a necessary precondition to the development of self-provisioned network facilities.”²¹ The Commission thus envisioned the use of UNEs by competitors as a stepping stone to deployment of their own facilities.²² That is, the Commission intended UNEs to provide new competitors a means to enter an incumbent LEC local market and obtain a sufficient customer base and revenue source to eventually build their own competing network.²³ The Commission also noted the higher costs and deployment timeframes associated with deploying loops in rural areas, and so the Commission expected that facilities-based providers would build out their networks more quickly in urban areas.²⁴

10. *Avoided-Cost Resale.* The 1996 Act included other obligations to facilitate market entry by new competitors, including an Avoided-Cost Resale provision that requires incumbent LECs to “offer for resale at wholesale rates any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers.”²⁵ Congress prescribed the method for determining the wholesale rate as “retail rates . . . excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier.”²⁶ Avoided-Cost Resale

¹⁶ *Triennial Review Remand Order*, 20 FCC Rcd at 2547, para. 28; *see also Iowa Utils. Bd.*, 525 U.S. at 389; *United States Telecom Ass’n v. FCC*, 290 F.3d 415, 418 (D.C. Cir. 2002) (*USTA I*).

¹⁷ *Triennial Review Remand Order*, 20 FCC Rcd at 2547, para. 28.

¹⁸ *Triennial Review Order*, 18 FCC Rcd at 17045, para. 97; *see also Triennial Review Remand Order*, 20 FCC Rcd at 2535, para. 2, 2540, para. 10, 2590, para. 95, 2595, para. 104, 2599, para. 113, 2629, para. 172, 2638, para. 194.

¹⁹ *USTA II*, 359 F.3d at 579-80; *Triennial Review Order*, 18 FCC Rcd at 16987, para. 4; *see also Iowa Utils. Bd.*, 525 U.S. at 734; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696 (1999) (*UNE Remand Order*), *rev’d USTA I*, 290 F.3d 415.

²⁰ *Triennial Review Order*, 18 FCC Rcd at 16987, para. 4.

²¹ *UNE Remand Order*, 15 FCC Rcd at 3700, para. 5.

²² *See, e.g., id.* at 3700-01, paras. 6-7.

²³ *See First Local Competition Order*, 11 FCC Rcd at 15690, para. 378; *Triennial Review Order*, 18 FCC Rcd at 17122-23, para. 237; *Triennial Review Remand Order*, 20 FCC Rcd at 2535, para. 2.

²⁴ *See Triennial Review Order*, 18 FCC Rcd at 17107-08, para. 205; *see also Triennial Review Remand Order*, 20 FCC Rcd at 2617-18, para. 154.

²⁵ 47 U.S.C. § 251(c)(4); *see also First Local Competition Order*, 11 FCC Rcd at 15930, para. 863; 47 CFR § 51.605.

²⁶ 47 U.S.C. § 252(d)(3). As a practical matter, incumbent LECs implement this Avoided-Cost Resale obligation by incorporating in their interconnection agreements with competitive LECs discounted rates established by each state for the incumbent LECs’ telecommunications services. *See First Local Competition Order*, 11 FCC Rcd at 15930, para. 864; 47 CFR §§ 51.607-51.609; *see also* Letter from Thomas Jones et al., Willkie Farr & Gallagher LLP,

(continued....)

obligations are almost exclusively, if not entirely, used by competitive LECs to provision legacy TDM voice services to business customers.²⁷

11. *Forbearance.* Section 10 of the Act, enacted at the same time as the local market-opening unbundling and resale provisions, requires the Commission to forbear from applying any requirement of the Act or of our regulations to a telecommunications carrier or telecommunications service if and only if the Commission determines that: (1) enforcement of the requirement “is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory,” (2) enforcement of that requirement “is not necessary for the protection of consumers,” and (3) “forbearance from applying that requirement is consistent with the public interest.”²⁸ Forbearance is warranted only if all three criteria are satisfied.²⁹ In making the public interest determination, the Commission must also consider, pursuant to section 10(b) of the Act, “whether forbearance from enforcing the provision or regulation will promote competitive market conditions.”³⁰

12. The Commission has broad discretion in analyzing whether the forbearance criteria have been satisfied, and “the agency [may] reasonably interpret[] the statute to allow the forbearance analysis to vary depending on the circumstances.”³¹ In particular, “the statute imposes no particular mode of market analysis or level of geographic rigor” when the Commission undertakes a competitive analysis.³² The Commission can also consider the section 706 goal of fostering the deployment of advanced telecommunications capabilities in making forbearance decisions.³³ In considering forbearance from unbundling obligations, the Commission is entitled to rely on its expert predictive judgment and may balance “the positive short-term impact of unbundling” against the “longer-term positive impact that *not* unbundling would have”³⁴ Moreover, the Commission may forbear without conducting a

(Continued from previous page) _____

Counsel for Granite Telecommunications, LLC et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 26 nn.130, 132 (filed Nov. 8, 2018). The Avoided-Cost Resale obligations in section 251(c)(4) go beyond the more general resale requirement in section 251(b)(1) of the Act, which applies to incumbent and competitive LECs alike, and does not include a wholesale discount rate mandate. 47 U.S.C. § 251(b)(1); *First Local Competition Order*, 11 FCC Rcd at 15981-82, para. 976-77; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6505-06, para. 5.

²⁷ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6505, para. 5.

²⁸ 47 U.S.C. § 160(a).

²⁹ *Cellular Telecomms. & Internet Ass’n v. FCC*, 330 F.3d 502, 509 (D.C. Cir. 2003) (explaining that the three prongs of section 10(a) are conjunctive and that the Commission could properly deny a petition for failure to meet any one prong). 47 U.S.C. § 160(d). The Commission has specifically found that section 251(c) has been fully implemented—i.e., that the Commission has adopted rules implementing the statute and that those rules have become effective. See *Petition of Qwest Corp. for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metropolitan Statistical Area*, Memorandum Opinion and Order, 20 FCC Rcd 19415, 19440, para. 53 (2005) (*Qwest Omaha Order*); *Petition of Qwest Corp. for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, WC Docket No. 09-135, Memorandum Opinion and Order, 25 FCC Rcd 8622, 8672 n.283 (2010), *aff’d*, *Qwest Corp. v. FCC*, 689 F.3d 1214 (10th Cir. 2012).

³⁰ 47 U.S.C. § 160(b).

³¹ *Earthlink v. FCC*, 462 F.3d 1, 8 (D.C. Cir. 2006).

³² *Id.* at 8.

³³ *Id.*

³⁴ *Id.* at 11.

competitive analysis when changed circumstances have rendered a regulatory requirement unnecessary for other reasons.³⁵

13. *Commission's Application of Unbundling and Resale Provisions Over the Years.* In the more than two decades since the 1996 Act was initially implemented, the Commission has adjusted its unbundling and resale obligations to reflect the realities of the evolving communications marketplace and to encourage incumbent and competitive LECs alike to invest in next-generation facilities. Indeed, Congress signaled its intent that the Commission do so by providing the agency authority to forbear from regulatory obligations once the Commission determined that they are no longer necessary,³⁶ and by exhorting the Commission to use forbearance and other measures to encourage deployment of advanced telecommunications capability and remove barriers to infrastructure deployment.³⁷

14. The Commission's initial orders implementing section 251(c)(3) imposed extensive nationwide unbundling obligations for local loops used to serve mass market and enterprise customers regardless of technology, for dedicated and shared interoffice transport, and for a range of other network elements. The courts rejected these initial attempts in whole or in part for a number of reasons.³⁸ For example, the Commission's first order implementing broad unbundling rules, adopted in August 1996, was vacated by the Supreme Court because it held that rather than providing "blanket access" to UNEs, the "Act requires the FCC to apply *some* limiting standard, rationally related to the goals of the Act, which it has failed to do."³⁹ Furthermore, as Justice Breyer explained, the Commission's overly-broad unbundling was inappropriate because "[i]ncreased sharing by itself does not automatically mean increased competition. It is in the *unshared*, not in the *shared*, portions of the enterprise that meaningful competition would likely emerge."⁴⁰ The Commission's next attempt to establish unbundling rules, the 1999 *UNE Remand Order*, was vacated and remanded by the D.C. Circuit in 2002 because, among other reasons, the Commission failed to weigh the potential negative effects that unbundling could have on incentives to invest in facilities, analyzed impairment on an insufficiently granular level, and did not adequately consider the role of intermodal competition.⁴¹

15. In 2003, the Commission issued the *Triennial Review Order* in response to the D.C. Circuit's remand, just as incumbent and competitive LECs were beginning to deploy new fiber-based local loops. The Commission sharply limited the unbundling of these next-generation fiber loops because it recognized that unbundling can reduce the incentives for both incumbent and competitive LECs to deploy advanced facilities.⁴² It also noted that unbundling is an especially intrusive form of economic regulation and is difficult to administer.⁴³ The Commission further explained, consistent with the "at a minimum" language in section 251(d)(2) of the Act,⁴⁴ that it declined to require unbundling for fiber-based loops because even if "some level of impairment may exist," "unbundling appeared likely to

³⁵ *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) from Enforcement of Obsolete ILEC Legacy Regulations that Inhibit Deployment of Next Generation Networks*, Memorandum Opinion and Order, 31 FCC Rcd 6157, 6163-64, para. 9 (2015) (*2015 USTelecom Forbearance Order*).

³⁶ 47 U.S.C. § 160(a).

³⁷ *Id.* § 1302(a).

³⁸ See generally *First Local Competition Order*, 11 FCC Rcd 15499, *rev'd AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366; *UNE Remand Order*, 15 FCC Rcd 3696, *rev'd USTA I*, 290 F.3d 415.

³⁹ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. at 388-92 (vacating 47 CFR § 51.319).

⁴⁰ *Id.* at 429 (Breyer, J., concurring).

⁴¹ See *USTA I*, 290 F.3d at 422, 425-30 (vacating and remanding *UNE Remand Order*, 15 FCC Rcd 3696).

⁴² *Triennial Review Order*, 18 FCC Rcd at 17071, para. 141, 17229, para. 404.

⁴³ *Id.*

⁴⁴ *USTA II*, 359 F.3d at 579.

undermine important goals of the 1996 Act,” particularly the exhortation in section 706 to encourage the deployment of advanced telecommunications capability to all Americans by removing barriers to investment.⁴⁵ The Commission reasoned that refraining from imposing such obligations would increase incentives for incumbent LECs to develop and deploy innovative new networks and force competitive LECs to “seek innovative network access options to serve end users and to fully compete against incumbent LECs in the mass market,” with the result that consumers would “benefit from this race to build next generation networks and the increased competition in the delivery of broadband services.”⁴⁶

16. In 2005, in response to the D.C. Circuit’s remand of other aspects of the *Triennial Review Order*,⁴⁷ the Commission issued the *Triennial Review Remand Order*. There, the Commission, among other things, adjusted its unbundling rules for enterprise loops and dedicated interoffice transport to eliminate unbundling obligations in locations with existing and expected future competition.⁴⁸ The Commission declined to order unbundling for DS1 and DS3 loops in buildings served by incumbent LEC wire centers with sufficient competitive presence and demand for service.⁴⁹ The Commission explained that the proxies of business line counts served from a particular wire center and fiber-based collocators at that same wire center allowed it to identify wire center service areas where it was “likely that competitors actually have deployed, or will deploy, competitive facilities” and to eliminate unbundling obligations in those specific locations.⁵⁰ The Commission’s framework therefore retained unbundling of enterprise loops in less densely served areas. With respect to transport, the Commission classified wire centers into tiers “based on indicia of the potential revenues and suitability for competitive transport deployment” and eliminated or capped unbundling obligations for DS1, DS3, and dark fiber transport depending on the level of current and anticipated competition.⁵¹ The Commission also declined to require unbundling of network elements for competitors to use exclusively for providing long distance and mobile voice services because of pervasive competition in those markets that occurred without reliance on UNEs.⁵² While the Commission declined to end unbundling obligations for competitors seeking to offer local telephone service, even in light of evidence of some intermodal competition, it acknowledged that ending those unbundling obligations “might someday be appropriate, upon findings of sufficient facilities-based competition in the local exchange market.”⁵³ Specifically, the Commission ultimately imposed unbundling obligations only in those situations where it found unbundling “does not frustrate sustainable, facilities-based competition.”⁵⁴

17. Beginning in late 2005, the Commission further refined its unbundling obligations by forbearing from UNE loop and transport obligations for incumbent LECs in certain geographic service areas to account for increased facilities-based deployment and competition by cable providers.⁵⁵ For

⁴⁵ *Triennial Review Order*, 18 FCC Rcd at 17087-88, para. 173.

⁴⁶ *Id.* at 17141-42, para. 272.

⁴⁷ *USTA II*, 359 F.3d 554.

⁴⁸ *Triennial Review Remand Order*, 20 FCC Rcd at 2536-37, para. 5, 2575-76, para. 66, 2625, para. 166.

⁴⁹ *Id.* at 2627-28, para. 170, 2629-30, para. 174, 2632, para. 178.

⁵⁰ *Id.* at 2625-26, para. 167, 2628, para. 171.

⁵¹ *Id.* at 2586-87, paras. 87-90, 2597-98, para. 111; 47 CFR § 51.319 (d)(2)(ii)(B), (d)(2)(iii)(B), (d)(2)(iv).

⁵² *Triennial Review Remand Order*, 20 FCC Rcd at 2536, para. 3.

⁵³ *Id.* at 2556, n.116.

⁵⁴ *Id.* at 2535, para. 2.

⁵⁵ See, e.g., *Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Resale, Unbundling and Other Incumbent Local Exchange Requirements Contained in Sections 251 and 271 of the Telecommunications Act of 1996 in the Terry, Montana Exchange*, 23 FCC Rcd 7257, 7263-71, paras. 12-27 (2008); *Petition of ACS of Anchorage, Inc. Pursuant to Section 10 of the Communications Act of 1934, as Amended, for Forbearance from*

(continued....)

example, the Commission granted the incumbent LEC Qwest relief from UNE loop and transport obligations in portions of its service territory in the Omaha Metropolitan Statistical Area (MSA) where a facilities-based cable competitor had substantially built out its local network in competition with Qwest.⁵⁶ The Commission relied on the “substantial intermodal competition” presented by the cable competitor, Cox, over its “own extensive facilities.”⁵⁷ The Commission noted that while it had earlier determined that “intermodal competition from cable had not ‘blossomed into a full substitute for wireline telephony,’” Cox had changed those circumstances as a result of its “investment in network infrastructure in the Omaha MSA.”⁵⁸ The Commission granted similar relief to ACS of Anchorage in those wire centers in the Anchorage study area “where the level of facilities-based competition by the local cable operator [GCI] ensures that market forces will protect the interests of consumers and that such regulation, therefore, is unnecessary.”⁵⁹

18. More recently, in 2015, the Commission eliminated one of the last unbundling requirements applicable to next-generation networks by granting forbearance on a forward-looking basis to all incumbent LECs from the requirement to make available a 64 kbps voice-grade channel over overbuilt fiber loops.⁶⁰ The Commission recognized that even this limited unbundling obligation on fiber loop deployments could have harmful effects on broadband deployment, finding that it could “impede the retirement of copper loops and the overall transition from copper to fiber” and from legacy TDM-based services to next-generation networks and services.⁶¹ The Commission further noted that, “as a ‘very limited’ safeguard to protect narrowband voice competition” during the copper-to-fiber transition, this UNE had a “decreasingly relevant purpose.”⁶² The Commission, nevertheless, retained the unbundling obligation for existing users.⁶³

19. Earlier this year, in response to a petition for forbearance filed by USTelecom,⁶⁴ we granted forbearance from certain unbundling and resale obligations which had become outdated in light of competitive fiber deployment, technological change, and intermodal competition.⁶⁵ We forbore from

(Continued from previous page) _____
Sections 251(c)(3) and 252(d)(1) in the Anchorage Study Area, WC Docket No. 05-281, Memorandum Opinion and Order, 22 FCC Rcd 1958, 1962-63, paras. 7-8 (2007) (*ACS Anchorage Order*); *Qwest Omaha Order*, 20 FCC Rcd 19415.

⁵⁶ *Qwest Omaha Order*, 20 FCC Rcd at 19417, para. 2 (quoting *Triennial Review Order*, 18 FCC Rcd at 17127, para. 245).

⁵⁷ *Id.* at 19444, para. 59.

⁵⁸ *Id.* at 19444, par. 59; see also *ACS Anchorage*, 22 FCC Rcd at 1959, para. 1 (granting forbearance from loop and transport unbundling obligations in “those portions of its service territory in the Anchorage study area where a facilities-based competitor [GCI] has substantially built out its network”).

⁵⁹ *ACS Anchorage*, 22 FCC Rcd at 1960, para. 2.

⁶⁰ See *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6189, para. 55.

⁶¹ *Id.* at 6190, para. 57.

⁶² *Id.* at 6189, para. 55, 6190, para. 58.

⁶³ See *id.* at 6194, para. 66.

⁶⁴ See Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks, WC Docket No. 18-141 (filed May 4, 2018).

⁶⁵ See *UNE Transport Forbearance Order*, 34 FCC Rcd 5767; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd 6503. Throughout this Notice, when referencing the *BDS Remand Order/UNE Transport Forbearance Order*, we cite the portions containing the Commission’s findings in response to the Eighth Circuit’s partial remand of *Business Data Services in an Internet Protocol Environment et al.*, WC Docket Nos. 16-143 et al., Report and Order, 32 FCC Rcd 3459 (2017) (*BDS Order*), as the *BDS Remand Order*, and we cite the portions addressing aspects of the May 2018 forbearance petition filed by USTelecom—The Broadband Association (USTelecom) as the *UNE Transport Forbearance Order*. All references to comments, oppositions, and replies in

(continued....)

unbundling obligations for DS1 and DS3 dedicated interoffice transport (UNE DS1/DS3 Transport) between price cap incumbent LEC wire centers within a half mile of competitive fiber network deployment, finding that these obligations no longer served the public interest given the presence of competitive transport options.⁶⁶ We also granted forbearance relief to price cap incumbent LECs throughout the entirety of their service areas from (1) the obligation to unbundle two-wire and four-wire analog voice-grade copper loops, including the attached equipment (UNE Analog Loops),⁶⁷ and (2) Avoided-Cost Resale obligations.⁶⁸ We found that these obligations, which are overwhelmingly used to provide TDM-based local voice service, were no longer necessary based on “the sweeping changes in the communications marketplace” since 1996, including the increasing migration of consumers of all types to “newer, any-distance voice services over next-generation wireline and wireless networks” as well as the wide range of intermodal competitors in the voice marketplace.⁶⁹ We further found that “the public interest is no longer served by maintaining these legacy regulatory obligations and their associated costs.”⁷⁰

20. *Current Unbundling and Resale Requirements.* The Commission’s current unbundling rules, subject to the various grants of forbearance described above, require that incumbent LECs unbundle (1) mass market copper digital and xDSL-capable loops (collectively, UNE DS0 Loops) nationwide; (2) UNE Analog Loops in non-price cap incumbent LEC areas; (3) the TDM capabilities, features, and functionalities of hybrid fiber-copper loops nationwide; (4) enterprise loops (i.e., DS1 and DS3 loops) subject to the limitations reflecting current and potential competition adopted in the *Triennial Review Remand Order*; (5) subloops, including subloops for multiunit premises wiring, nationwide; (6) network interface devices nationwide; (7) dedicated interoffice transport (i.e., DS1, DS3, and dark fiber transport) subject to the limitations reflecting potential competition in the *Triennial Review Remand Order* and our forbearance for UNE DS1/DS3 Transport in wire centers within a half mile of competitive fiber in the *UNE Transport Forbearance Order*; (8) operations support systems nationwide; and (9) 911/E911 databases nationwide.⁷¹ Incumbent LECs are also required to continue to offer a 64 kbps channel over fiber loops to existing customers.⁷² The Commission has not found impairment with respect to any new unbundled network elements since 2004. Finally, non-price cap incumbent LECs must offer Avoided-Cost Resale to requesting carriers in their local exchange service areas.⁷³

(Continued from previous page) _____

this Notice, unless otherwise specified, refer to filings in WC Docket No. 18-141 in response to USTelecom’s forbearance petition. See *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141 (filed May 4, 2018) (USTelecom Petition). We incorporate by reference the cited filings from WC Docket No. 18-141 in full into the record of this proceeding.

⁶⁶ See *UNE Transport Forbearance Order*, 34 FCC Rcd at 5769, para. 4.

⁶⁷ 47 CFR § 51.319(a)(1). UNE Analog Loops have no broadband capability.

⁶⁸ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6504, para. 3.

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ 47 CFR § 51.319. As discussed above, the Commission has at times granted requested forbearance relief to petitioning carriers for particular UNEs in specific geographic markets.

⁷² 47 CFR 51.319(a)(3)(iii)(C); *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 66.

⁷³ 47 U.S.C. § 251(c)(4); *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6523, para. 38.

B. Today's Communications Marketplace

21. In the 23 years since Congress passed the 1996 Act, incumbent LECs have gone from monopolists with nearly 100% of the local telephone service market⁷⁴ to providing only approximately 46% of all wireline voice subscriptions and 12% of all voice subscriptions across all technologies.⁷⁵ In the voice marketplace, incumbent LECs face competition from facilities-based providers, including cable companies offering VoIP and fixed wireless providers, as well as from mobile wireless providers.⁷⁶ Indeed, consumers and businesses are increasingly moving from incumbent LEC voice services to services provided by a multitude of other providers using various technologies.⁷⁷ In the broadband marketplace, incumbent LECs are just one of many intermodal competitors, providing only about 20% of residential broadband subscriptions at or above 25/3 Mbps.⁷⁸ Furthermore, enterprise customers enjoy widespread competitive choice, with 95% of census blocks with business data services demand in price cap areas, or 99% of business establishments, featuring at least one competitive provider.⁷⁹

22. At the same time, the technologies used to deliver communications services have dramatically transformed. While TDM technology via copper networks was the dominant means of providing voice and dial-up Internet access services in 1996,⁸⁰ the TDM-to-IP transition has been accelerating over the last two-plus decades. Indeed, incumbent LECs have been retiring last-mile copper,⁸¹ which will eventually lead to the transition from legacy TDM-based services to modern, IP-based services. In light of this transition, we have observed that competitive LECs and other network providers have been deploying their own fiber facilities.⁸² This is in part because incumbent LECs'

⁷⁴ See *First Local Competition NPRM*, 11 FCC Rcd 14171, 14174-75, para. 6; *UNE Transport Forbearance Order*, 34 FCC Rcd at 5768-69, para. 9; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 3504, para. 4; see also *First Local Competition Order*, 11 FCC Rcd at 15505, para. 1.

⁷⁵ See FCC, Voice Telephone Services as of 12/31/17, Tables: Nationwide and State-Level Data for 2008-present (Aug. 28, 2019), <https://www.fcc.gov/voice-telephone-services-report>.

⁷⁶ See, e.g., *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509, para. 12.

⁷⁷ See, e.g., *id.*; see also *2018 Communications Marketplace Report et al.*, Report, 33 FCC Rcd 12558, 12668, para. 203 (2018) (*2018 Communications Marketplace Report*) (noting that “[a]lthough the public switched telephone network used to be the only means to connect, there now exists a multitude of other voice service options for consumers” and telecommunications options include “apps running solely on data networks that are nearly indistinguishable to the consumer from the core communications functionality of the [public switched telephone network]”); *id.* at 12669, para. 207 (stating that “consumers benefit from the ever-evolving choices available to meet their voice communications needs”).

⁷⁸ Cable providers provide approximately 78% of 25/3 Mbps residential subscriptions. Commission staff calculations based on Form 477 data as of June 30, 2018; see also *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509, para. 12; *2018 Communications Marketplace Report*, 33 FCC Rcd at 12649, para. 180.

⁷⁹ See *BDS Order*, 32 FCC Rcd at 3481, para. 42.

⁸⁰ See, e.g., *Technology Transitions et al.*, GN Docket No. 13-5, WC Docket No. 05-25, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 30 FCC Rcd 9372, 9373, para. 1 (2015) (*2015 Technology Transitions Order*); see also *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6508, para. 10.

⁸¹ See generally <https://www.fcc.gov/wireline-competition/general/section-251-wireline-network-changes>.

⁸² See, e.g., *BDS Order*, 32 FCC Rcd at 3482, para. 44 (“[T]here is strong evidence of rapid growth in competitive investment. . . . The declining distances between buildings with [BDS] demand and the fiber networks of competitive providers in general, and those of cable providers with extensive fiber networks in particular, create a cycle of investment and benefits within an area outside of any particular building. . . . As costs continue to drop through further fiber deployments, and potential revenues for each building served increase with growing demand for high bandwidth services, the competitive providers with significant legacy (in the case of cable) and newer

(continued....)

historical advantages are not nearly as strong with the advent of “newer[] and in-demand” technologies, and IP-based services therefore provide a “considerably more level playing field” compared to TDM-based services.⁸³ The Commission recognized this “increased investment in facilities and service deployment” by competitive providers in the business marketplace in the 2017 *BDS Order*.⁸⁴ Furthermore, in the residential marketplace, one recent study shows that fiber will pass 50% of all U.S. households by 2025,⁸⁵ and 5G wireless networks promise to revolutionize how Americans access and use broadband.⁸⁶

III. DISCUSSION

23. We propose to modernize our unbundling rules for local loops, dark fiber transport, and other types of network elements to reflect the vastly changed communications environment since the Commission last examined unbundling obligations through the impairment lens. These legacy obligations appear to no longer make any sense in many geographic areas due to vigorous competition for business data services, mass market broadband services, and numerous intermodal voice capabilities and services. In practice, these obligations appear to both discourage the deployment of next-generation networks and unnecessarily burden incumbent LECs.

A. Modernizing Unbundling Obligations for Today’s Communications Marketplace

24. Recognizing that the “purpose of the Act is not to provide the widest possible unbundling,” but “to stimulate competition—preferably genuine, facilities-based competition,”⁸⁷ we seek comment on how best to modernize incumbent LECs’ remaining unbundling obligations. While UNEs in some circumstances have provided a path for competitors to enter markets they might not otherwise be able to have economically justified entering,⁸⁸ the Commission has long recognized that “excessive network unbundling requirements tend to undermine the incentives of both incumbent LECs and new entrants to invest in new facilities and deploy new technology.”⁸⁹ Therefore, the Commission has never viewed the UNE obligations as being of infinite, or even indefinite, duration,⁹⁰ particularly in light of Congress’s inclusion in the 1996 Act of the means for the Commission to analyze the continued necessity of those requirements.⁹¹ Today’s marketplace is characterized by robust intermodal competition for voice

(Continued from previous page) _____

networks have powerful economic incentives to enter and price their services aggressively.”); *see also* 2018 *Communications Marketplace Report*, 33 FCC Rcd at 12649, paras. 179-80.

⁸³ *See BDS Order*, 32 FCC Rcd at 3468, para. 16, 3490-91, paras. 67-68, 3498, para. 83.

⁸⁴ *Id.* at 3462, para. 5.

⁸⁵ *See* Letter from Lisa R. Youngers, Pres. & CEO, Fiber Broadband Ass’n, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 19-126 and 10-90, at 1, Attach. 1 (filed Sept. 12, 2019).

⁸⁶ *See Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment et al.*, WT Docket No. 17-79, WC Docket No. 17-84, Declaratory Ruling and Third Report and Order, 33 FCC Rcd 9088, 9096, paras. 23-24 (2018) (*2018 Wireless Infrastructure Order*).

⁸⁷ *USTA II*, 359 F.3d at 576.

⁸⁸ *See First Local Competition Order*, 11 FCC Rcd at 15505, para. 1, 15506, para. 4; *UNE Remand Order*, 15 FCC Rcd at 3699, para. 3.

⁸⁹ *Triennial Review Order*, 18 FCC Rcd at 16984, para. 3.

⁹⁰ *See First Local Competition Order*, 11 FCC Rcd at 15507, para. 6; *UNE Remand Order*, 15 FCC Rcd at 3701, para. 7; *Triennial Review Remand Order*, 20 FCC Rcd at 2536, para. 3.

⁹¹ *See* 47 U.S.C. § 160(a). Indeed, Congress specifically contemplated a future time when the continued need for section 251(c) unbundling obligations may be reevaluated. *See id.*; *see also* Verizon Comments at 5 (noting that “Congress designed [section 251’s] requirement[s] to be temporary, directing the Commission to adjust or eliminate the regulations when competition developed and market conditions evolved”).

and broadband services that may render many remaining unbundling obligations unnecessary or even actively harmful by impeding the deployment of and transition to more technologically advanced networks and services.⁹² Our proposals in this Notice are informed by recent evidence demonstrating the availability of intermodal competition,⁹³ as well as specific Commission findings based on comprehensive industry data that certain last mile loop and transport unbundling obligations are no longer necessary.⁹⁴ We acknowledge, however, that there remains a digital divide between urban areas, which boast increasing numbers of intermodal broadband providers, and rural areas. Because UNEs may have continued benefits in providing broadband access to Americans in rural areas—where achieving scale is harder and thus competitive entry is harder—we propose to maintain existing unbundling of mass market broadband-capable loops in rural areas.

1. UNE Loops

25. Loops generally provide “the last mile of a carrier’s network that enables the end-user to originate and receive communications.”⁹⁵ Incumbent LECs are required to provide unbundled access to three general types of loop facilities: (1) DS1 and DS3 loops, (2) DS0 loops, and (3) the TDM-capabilities, features, and functionalities of hybrid copper/fiber loops.⁹⁶ Incumbent LECs must also provide unbundled access to UNE Analog Loops in non-price cap incumbent LEC service areas.⁹⁷ In adopting loop unbundling requirements, the Commission clarified that all loop types may be used “across a range of customer categories” and that the UNE requirements apply equally to all classes served.⁹⁸ At the same time, the Commission observed that the different types of loop facilities “as a practical matter, typically serve distinct classes of customers, resulting in different economic considerations for competitive carriers seeking to self-deploy.”⁹⁹ We factor these observations and considerations, along with the “reasonably efficient competitor” aspect of the impairment standard, into our proposals below.¹⁰⁰

⁹² See generally *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd 6503.

⁹³ See, e.g., *BDS Order*, 32 FCC Rcd at 3483-93, paras. 48-73, 3495-98, paras. 77-82 (describing competitive entry in the business data services markets); *2018 Communications Marketplace Report*, 34 FCC Rcd at 12649-50, paras. 179-82 (discussing intermodal competition among fixed broadband services); see also *Triennial Review Order*, 18 FCC Rcd at 17045, para. 97 (explaining that “the presence of intermodal alternatives can be just as probative of a lack of impairment as the presence of traditional wireline ‘telephone’ deployment” and that “[t]he fact that an entrant has deployed its own facilities – regardless of the technology chosen – may provide evidence that any barriers to entry can be overcome”); see also *Covad Commc’ns Co. v. FCC*, 450 F.3d at 545; *USTA II*, 359 F.3d at 576, 582.

⁹⁴ See, e.g., *UNE Transport Forbearance Order*, 34 FCC Rcd at 5793-94, paras. 57-58; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6511-12, paras. 15-18.

⁹⁵ *Triennial Review Remand Order*, 20 FCC Rcd at 2614-15, para. 147 (internal quotation marks omitted).

⁹⁶ 47 CFR § 51.319(a). Incumbent LECs are also required to provide unbundled access to 64 kbps voice-grade channels over fiber loops to existing customers. See *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 66.

⁹⁷ 47 CFR § 51.319(a); *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6504, paras. 2-3.

⁹⁸ *Triennial Review Order*, 18 FCC Rcd at 17102, n.623.

⁹⁹ *Id.* at 17102, para. 197.

¹⁰⁰ See, e.g., Mike Robuck, Cogent CEO has no regrets on company’s network build out, <https://www.fiercetelecom.com/telecom/cogent-ceo-has-no-regrets-company-s-network-architecture-build-but-others-may> (quoting Cogent CEO as telling investors that because of the changes in the marketplace, “You would not replicate a cable plant with an HFC plant and a branch and tree architecture. . . . You would not replicate a wireline telephony network with 25,000 COs (central offices) and 223 million pairs of hub and spoke copper. You would not replicate a mobile network that was based entirely on macro cells with low band frequency initially in 800 megahertz with 70,000 cell sites. You would build something very different.”).

a. UNE DS1 and DS3 Loops

26. The Commission's rules require incumbent LECs to unbundle DS1 and DS3 loops,¹⁰¹ which are last-mile transmission facilities¹⁰² operating at a total digital signal speed of 1.544 Mbps and 44.736 Mbps, respectively.¹⁰³ These loops, which are used primarily to serve enterprise customers,¹⁰⁴ are not available as UNEs in all locations. Rather, the Commission limited the availability of UNE DS1 and DS3 Loops based on "both a minimum number of business lines served by a wire center and the presence of a minimum number of fiber-based collocators," noting that "[a] high concentration of business lines generally indicates a likely concentration of large, multi-story commercial buildings," which a reasonably efficient competitor could serve by building its own fiber-based facilities.¹⁰⁵ Under our rules, the relevant thresholds for unbundling differ as to DS1 loops and DS3 loops.¹⁰⁶ The Commission also capped the availability of unbundled DS1 and DS3 loops in a single building, recognizing that at certain thresholds of total bandwidth demanded at a particular location, it was feasible for competitive providers to self-provision and thus no impairment existed.¹⁰⁷

27. We propose to find no impairment with respect to UNE DS1 and DS3 Loops in (1) counties served by price cap incumbent LECs found to be competitive pursuant to the *BDS Order*;¹⁰⁸ and (2) the study areas deemed competitive as a result of our decision to allow certain rate-of-return incumbent LECs to elect incentive regulation for their business data services,¹⁰⁹ subject to a narrow residential carve-out described below. We seek comment on this proposal.

28. Our proposal is based on the competitive findings in the *BDS Order* and the *RoR BDS Order*. In the *BDS Order*, based on the most extensive data collection that the Commission has ever undertaken, the Commission concluded that "[t]o a large extent in the business data services market, the competition envisioned in the [1996 Act] has been realized."¹¹⁰ It explained that incumbent LECs "once dominated" the market by selling TDM-based DS1s and DS3s, but those services were being eclipsed by packet-based services sold by incumbent LECs, competitive LECs, cable providers, and other intermodal

¹⁰¹ 47 CFR § 51.319(a)(4)-(5).

¹⁰² *Triennial Review Remand Order*, 20 FCC Rcd at 2614-15, paras. 146-47.

¹⁰³ 47 CFR § 51.319(a)(4)(i), (a)(5)(i).

¹⁰⁴ *See Triennial Review Order*, 18 FCC Rcd at 17104-05, paras. 201-02, 17156, para. 298.

¹⁰⁵ *Triennial Review Remand Order*, 20 FCC Rcd at 2625-26, paras. 167-68; *see also id.* at 2628, paras. 171-72; *BDS Order*, 32 FCC Rcd at 3476, para. 34.

¹⁰⁶ UNE DS1 Loops are only available "to any building not served by a wire center with at least 60,000 business lines and at least four fiber-based collocators." 47 CFR § 51.319(a)(4)(i). UNE DS3 Loops are only available "to any building not served by a wire center with at least 38,000 business lines and at least four fiber-based collocators." *Id.* § 51.319(a)(5)(i).

¹⁰⁷ *See id.* § 51.319(a)(4)(ii)-(iii) (limiting requesting carriers to 10 DS1 loops and one DS3 loop to any single building); *Triennial Review Remand Order*, 20 FCC Rcd at 2616, para. 149, 2618, para. 157, 2625-26, para. 167, 2633-36, paras. 177-81.

¹⁰⁸ We do not include the "Counties Deemed Grandfathered" within our category of BDS competitive counties. *See BDS County Lists*, <https://www.fcc.gov/bds-county-lists>.

¹⁰⁹ *See Regulation of Business Data Services for Rate-of-Return Local Exchange Carriers, Business Data Services in an Internet Protocol Environment, Special Access for Price Cap Local Exchange Carriers*, WC Docket No. 17-144 et al., Report and Order, Second Further Notice of Proposed Rulemaking, and Further Notice of Proposed Rulemaking, 33 FCC Rcd 10403, 10436-37, paras. 90-93 (2018) (*RoR BDS Order*). We refer collectively herein to the BDS competitive counties and the competitive rate-of-return carrier study areas as the BDS Competitive Counties and Study Areas.

¹¹⁰ *BDS Order*, 32 FCC Rcd at 3462, para. 5.

competitors.¹¹¹ The Commission developed a competitive market test for price cap incumbent LECs' DS1 and DS3 services "with the goal of promoting innovation and investment and recognizing recent trends and developments in the BDS marketplace" and "to determine which local markets are sufficiently competitive to warrant deregulation."¹¹² The competitive market test deemed a price cap county competitive if either (1) 50% of the buildings in the county with BDS demand were within a half mile of a location served by competitive fiber, a distance at which the Commission found competitive providers actively competed for customers;¹¹³ or (2) 75% of census blocks within the county were served by cable with a minimum offering of 10/1 Mbps, suggesting that the cable provider had deployed sufficient capacity in its network to provide business data services.¹¹⁴ The Commission found that 91.1% of locations with business data services demand in price cap areas were deemed to be sufficiently competitive to eliminate ex ante pricing regulation for those services.¹¹⁵ It thus deemed 60% of price cap counties competitive for purposes of DS1 and DS3 channel terminations and found the remaining 40% (largely in more rural areas) non-competitive.¹¹⁶ The Commission subsequently adopted a similar competitive market test for rate-of-return incumbent LECs that have elected incentive regulation based on rate-of-return incumbent LEC study areas. This test, based on the second prong of the *BDS Order's* competitive market test, eliminated ex ante pricing regulation for DS1 and DS3 services in 16 rate-of-return study areas where cable providers offered 10/1 Mbps or higher speeds to at least 75% of census blocks.¹¹⁷ The Eighth Circuit affirmed the Commission's use of the competitive market test in the *BDS Order*, including the test's reliance on the competitive fiber facilities within a half mile and finding that cable services are "increasingly functioning as substitutes for BDS."¹¹⁸

29. We believe the *BDS Order's* findings eliminating ex ante pricing regulation of DS1 and DS3 business data services are applicable to the unbundling context. If we eliminate these specific UNEs in the BDS Competitive Counties and Study Areas, DS1 and DS3 services will remain available for purchase on a commercial basis as business data services. We understand that there are no material operational or performance distinctions between UNE DS1 and DS3 Loops and DS1 and DS3 business data services.¹¹⁹ The Commission has previously found that these two types of services are "particularly close substitutes" and thus are a part of the same competitive environment.¹²⁰ Do commenters agree? Is

¹¹¹ *Id.* at 3461-62, para. 4, 3468, paras. 15-16; *see also id.* at 3479, para. 38 ("We do note the promise of 5G technology to provide quality high-bandwidth fixed wireless services to business in urban areas. . . . [G]iven the very high capacity of 5G networks, they have the potential to represent a significant additional source of competition for the provision of business data services.").

¹¹² *Id.* at 3519, para. 130.

¹¹³ *Id.* at 3512-13, paras. 118-19.

¹¹⁴ *Id.* at 3519-3527, paras. 130-44.

¹¹⁵ *See id.* at 3525-26, paras. 141-42; *see also* Letter from Patrick R. Halley, Sr. V.P., Advocacy and Regulatory Affairs, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 4 (filed May 6, 2019) (USTelecom May 6, 2019 *Ex Parte* Letter).

¹¹⁶ *BDS Order*, 32 FCC Rcd at 3528, para. 152.

¹¹⁷ *See RoR BDS Order*, 33 FCC Rcd at 10409-10, paras. 16-17, 10431-32, paras. 78-79, 10436, paras. 90-91.

¹¹⁸ *Citizens Telecommunications Co. of Minnesota, LLC v. FCC*, 901 F.3d 991, 1009 (8th Cir. 2018).

¹¹⁹ *See, e.g.*, Letter from Curtis L. Groves, Assoc. Gen. Counsel, Fed. Reg. and Legal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 2 (filed July 20, 2018) (stating that "there are no technical or performance differences between UNE loops and special access loops"); Letter from Jacquelyne Flemming, AVP—External Affairs/Fed. Reg., AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed July 23, 2018) (AT&T July 23, 2018 *Ex Parte* Letter) (stating that "there are no significant differences in the capabilities of DS1 and DS3 facilities sold as UNE loops versus those sold as special access or under commercial contracts").

¹²⁰ *See BDS Order*, 32 FCC Rcd at 3476, para. 32.

there any meaningful difference between UNE DS1 and DS3 Loops and BDS DS1 and DS3 end user channel terminations or their terms of service, other than pricing?¹²¹ Even if there is such a difference, does unbundled access to UNE DS1 and DS3 Loops remain necessary in BDS Competitive Counties or Study Areas in the current communications marketplace with its extensive and increasing intermodal competition?¹²² In light of the increasing demand for higher-bandwidth and packet-based data services and the corresponding declining demand for DS1 and DS3 services,¹²³ do DS1 and DS3 loops constitute reasonably efficient technology such that a reasonably efficient competitor would rely on them to compete for BDS customers?

30. Our proposal to find no impairment for DS1 and DS3 loops in BDS Competitive Counties and Study Areas is also based on our findings about the availability of competitive fiber in the *BDS Remand Order*. In that *Order*, we calculated that within BDS Competitive Counties, more than 94% of locations with BDS demand were served by incumbent LEC wire centers within a half mile of competitive fiber, and more than 97% of locations with BDS demand were either themselves within a half mile of competitive fiber or served by an incumbent LEC wire center within a half mile of competitive fiber.¹²⁴ We reasoned that the data used in making those findings likely understated competition given that “cable companies and other competitors frequently bypass ILEC networks entirely.”¹²⁵ Moreover, the data underlying our analysis was collected in 2013, and “competitive fiber providers have continued to build new fiber routes in part to compete with incumbent LECs’ BDS offerings.”¹²⁶ We thus propose to infer that the small fraction of enterprise locations not within a half mile of competitive fiber or served by an incumbent LEC wire center within a half mile of competitive fiber, i.e., less than 3% of all enterprise locations in price cap incumbent LEC counties, would face the same non-impairment conditions for competitive providers.¹²⁷ We seek comment on this reasoning.

31. In the *BDS Order*, the Commission found that the most appropriate geographic measure at which to determine the competitiveness of DS1 and DS3 end-user channel terminations was the county level,¹²⁸ and we propose to use that same approach here. Do commenters agree? Is there any reason to base our analysis on a more granular geographic unit, e.g., based on wire centers served by competitive fiber, or some other geographic area, rather than on counties? For example, should we find that UNE DS1 and DS3 Loops should remain available in portions of BDS Competitive Counties served by incumbent LEC wire centers more than a half mile from competitive fiber? Are there different considerations for UNE DS1 and DS3 Loops compared to business data services that would warrant some type of exemption?

¹²¹ AT&T Reply at 14; *see also* INCOMPAS et al. Opposition, Attach. 9 at 3 (noting that special access DS1s and DS3s “are considerably more costly”).

¹²² *See, e.g., BDS Order*, 32 FCC Rcd at 3479, para. 38.

¹²³ *BDS Remand Order*, 34 FCC Rcd at 5781, para. 31.

¹²⁴ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5777, para. 20.

¹²⁵ *Id.* at 5777, para. 21 (quoting CenturyLink May 9, 2019 Comments at 3-4).

¹²⁶ *Id.* at 5777-78, para. 21.

¹²⁷ *See, e.g., BDS Order*, 32 FCC Rcd at 3482, para. 44 (noting the “strong evidence of rapid growth in competitive investment” that will result in “the average building with business data services demand over time” being “closer and closer to a competing facilities-based competitor’s network,” all of which will “create a cycle of investment and benefits within an area outside of any particular building”); *UNE Transport Forbearance Order*, 34 FCC Rcd at 5772-73, para. 10, 5791-95, paras. 54-58; *see also Triennial Review Remand Order*, 20 FCC Rcd at 2536, para. 5 (noting that “in applying our impairment test, we draw reasonable inferences regarding the prospects for competition in one geographic market based on the state of competition in other, similar markets”).

¹²⁸ *See BDS Order*, 32 FCC Rcd at 3508-12, paras. 108-16 (reasoning that counties were “granular enough to capture reasonably similar competitive conditions yet large enough to be administratively feasible”).

32. *Proposed Exemption for Residential Broadband in Rural Areas.* We propose to narrowly exempt the availability of UNE DS1 Loops from any unbundling relief such that UNE DS1 Loops will remain available for residential broadband service along with telecommunications service in rural census blocks. Although UNE DS1 and DS3 Loops are used largely to serve enterprise customers,¹²⁹ there is evidence in the record that some competitive LECs use UNE DS1 Loops to provision broadband to residential customers for whom no other broadband service is available and the distance is too great to provision such service using DS0s.¹³⁰ The findings regarding DS1s and DS3s for the enterprise market may not translate cleanly to the rural, residential market. We seek comment on this view.

33. We believe this exemption would have benefits in maintaining access to mass market broadband in rural areas that outweigh any disincentives to next-generation network deployments by either incumbent or competitive LECs and seek comment on that view. We seek comment on the administrability of this proposed exemption. We believe that incumbent LECs should be able to readily accommodate this proposed exemption to our proposed finding of no impairment for enterprise use in BDS Competitive Counties and Study Areas. Do commenters agree?

34. If we do carve out an exemption related to residential use, should that exemption be limited to UNE DS1 Loops? We understand that DS3 loops are not generally used for residential consumers. Are there ever instances where UNE DS3 Loops are used to provide residential broadband services? If so, should a similar exemption be provided to serve mass market residential customers in rural census blocks within BDS Competitive Counties and Study Areas where UNE DS3 loops are no longer available for enterprise use?

35. *Alternatives.* As an alternative to our proposal to find non-impairment for DS1 and DS3 loops in BDS Competitive Counties and Study Areas, should we instead provide relief from unbundling requirements for DS1 and DS3 loops based on a forbearance analysis? Specifically, should we forbear from the unbundling requirements for DS1 and DS3 loops in the BDS Competitive Counties and Study Areas? We seek comment on this alternative proposal and whether the three prongs of the forbearance test would be satisfied. We believe the forbearance criteria are met for the same service areas where we propose to find non-impairment based on the same competitive findings and public interest determinations made in the *BDS Order* and the *RoR BDS Order*. Do commenters agree?

36. Or should we instead find that the market for UNE DS1 and DS3 Loops in the BDS Competitive Counties and Study Areas is “sufficiently competitive without the use of unbundling?”¹³¹ The Commission in the *Triennial Review Remand Order* made such a finding as to the long distance and mobile wireless markets and thus declined to require that UNEs be made available for the exclusive provision of these services.¹³² Do the competitive findings in the *BDS Order* and the *RoR BDS Order* with respect to BDS services rise to the same level as the Commission’s findings in the *Triennial Review Remand Order* as to the long distance and mobile wireless service markets? If so, are they sufficient to conclude that incumbent LECs should no longer be required to make DS1 and DS3 loops available on an unbundled basis in BDS Competitive Counties and Study Areas?

¹²⁹ See USTelecom May 6, 2019 *Ex Parte* Letter at 4.

¹³⁰ See, e.g., INCOMPAS et al. Opposition at 4 (“And UNEs as a bridge to fiber is not limited to two-pair copper: DS1s and DS3 loops are also important to reach customers that are too far from an ILEC central office or sit on hybrid loops behind remote terminals, and allow CLECs to build their customer base until they have a sufficient base to support extending their own fiber either to the remote terminal or to the customer premises.”); *id.* at 52-55 (contending that competitive LECs, including Virginia Global, use DS1 to reach mass market broadband customers in rural areas); Sonic Opposition at 2-4 (stating that Sonic uses DS1 UNE loops to serve rural customers that are too far from a central office to be served by a DS0 loop).

¹³¹ *Triennial Review Remand Order*, 20 FCC Rcd at 2553, para. 35.

¹³² *Id.* at 2552, para. 34.

b. UNE DS0 Loops

37. The Commission's rules require incumbent LECs to make UNE DS0 Loops available nationwide.¹³³ These broadband-capable loops are used primarily to serve mass market residential customers, in contrast to UNE DS1 and DS3 Loops.¹³⁴ UNE DS0 Loops are typically used to provide both voice and broadband Internet access service using various xDSL technologies.¹³⁵

38. We propose to find that competitive LECs are no longer impaired without access to UNE DS0 Loops in urban census blocks. We base our proposal on the relatively low and falling barriers to entry that competitive providers face in providing broadband in urban areas, particularly using alternative technologies.¹³⁶ Because facilities-based broadband service provides residential consumers similar (and typically more advanced) voice and Internet access capabilities to those that can be provided with UNE DS0 Loops, we rely on evidence of entry into, and current competition within, the broadband marketplace in considering whether impairment persists as to UNE DS0 Loops in urban census blocks. Do commenters agree with this approach? We recognize that rural areas present different deployment considerations than urban areas and thus do not propose to include rural census blocks in our proposed non-impairment finding.¹³⁷

39. Our proposal to find that competitive LECs are no longer impaired in urban census blocks without access to UNE DS0 Loops relies on the presence of nearly ubiquitous cable deployment in urban areas. Cable providers make available facilities-based 25/3 Mbps Internet access service, which meets the Commission's definition of advanced telecommunications capability,¹³⁸ without the use of UNEs to 97% of households in urban census blocks.¹³⁹ Furthermore, 74% of households in urban census

¹³³ 47 CFR § 51.319(a)(1) (requiring the unbundling of “digital copper loops (*e.g.*, DS0s or integrated services digital network lines), as well as two-wire and four-wire copper loops conditioned to transmit the digital signals needed to provide digital subscriber line [xDSL] services”).

¹³⁴ See *Triennial Review Order*, 18 FCC Rcd at 17102, n.624. We also note that some competitive LECs use DS0s to provide Ethernet-over-copper and other higher-speed DSL service using bonded DS0s to certain business customers. See, *e.g.*, Sonic Telecom Opposition at 3; TPx Opposition at 3. Where UNE DS0 Loops remain available, competitive LECs may continue to use these loops for that purpose.

¹³⁵ See, *e.g.*, Sonic Telecom Opposition at 3.

¹³⁶ We may rely on the availability of broadband in any forbearance or impairment analysis, consistent with Congress's mandate in section 706 that we “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.” 47 U.S.C. § 1302(a). While our rules require competitive LECs to use UNEs to provision telecommunications services, once they do so, they may use those same UNEs to provision information services, *i.e.*, broadband. See, *e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17072, para. 144 (“[A] reasonable interpretation of the Act, and an examination of its purposes, leads us to the conclusion that, when a UNE can be used to provide multiple services, Congress did not intend to require that UNEs be used exclusively to provide qualifying telecommunications services.”), 17075, para. 148 (finding that section 251 and the Act do not prohibit the use of UNEs for information services, and such a reading would “conflict[] with the goals of the Act”). By the same token, because facilities-based broadband can be used to provide the same residential services that can be provided with UNEs today, we rely on entry into, and current competition within, the broadband marketplace in considering whether impairment persists as to UNE DS0 Loops.

¹³⁷ See, *e.g.*, *2018 Communications Marketplace Report*, 34 FCC Rcd at 12647, para. 177, 12650, para. 182, 12656, para. 189; see also *Triennial Review Order*, 18 FCC Rcd at 17107-08, para. 245; *Triennial Review Remand Order*, 20 FCC Rcd at 2617-18, para. 154.

¹³⁸ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 18-238, 2019 Broadband Deployment Report, 34 FCC Rcd 3857, 3862, para. 12 (2019) (*2019 Broadband Deployment Report*).

¹³⁹ Commission staff calculations based on Form 477 data as of June 30, 2018; see also *USTA II*, 359 F.3d at 582 (affirming the Commission's decision not to unbundle hybrid loops because the court agreed with the Commission that residential consumers benefit from the “robust intermodal competition” between incumbent LECs and cable

(continued....)

blocks have at least two 25/3 Mbps providers,¹⁴⁰ and 87% of households in urban census blocks have at least two 10/1 Mbps providers, generally the cable provider and the incumbent LEC, all without the use of UNEs.¹⁴¹ We infer from this data that as cable continues to vigorously compete with other wireline ISPs, cable providers will build out to the remaining urban census blocks in the near future and similarly, competing facilities-based wireline providers will upgrade their networks to better compete with cable.¹⁴² We seek comment on this analysis.

40. Our proposal also relies on recent evidence demonstrating that increasing numbers of competitors using wireless technologies are entering the residential market for broadband services in urban areas without the use of UNEs. For example, Verizon has announced plans to deploy 5G-based fixed wireless service in 30 geographic markets, mostly outside its incumbent LEC territory,¹⁴³ Starry is deploying fixed wireless service in major urban centers,¹⁴⁴ and other WISPs are specifically targeting urban customers as well.¹⁴⁵ AT&T's CEO recently told investors that over the next three to five years, "unequivocally 5G will serve as a . . . fixed broadband replacement product."¹⁴⁶ These developments are

(Continued from previous page) _____
providers); *Triennial Review Order*, 18 FCC Rcd at 17136, para. 263 (explaining that "the fact that broadband service is actually available through another network platform [cable] and may potentially be available through additional platforms helps alleviate any concern that competition in the broadband market may be heavily dependent upon unbundled access").

¹⁴⁰ Commission staff calculations based on Form 477 data as of June 30, 2018. These figures exclude satellite providers and competitive LECs providing copper-based services. We assume any non-incumbent LEC provider offering copper-based services uses UNEs.

¹⁴¹ *Id.*

¹⁴² See, e.g., *2018 Communications Marketplace Report*, 34 FCC Rcd at 12667, para. 200 (noting Verizon's claim of near ubiquitous cable competition and the impact its own provision of advanced services has on cable providers' investments in upgrading their networks); see also *Triennial Review Remand Order*, 20 FCC Rcd at 2558, para. 42 (at the D.C. Circuit's instruction, "draw[ing] inferences regarding the prospects for competitive entry in one market based on the state of competition in another market").

¹⁴³ See Verizon, 5G Home Internet FAQs, <https://www.verizonwireless.com/support/5g-home-faqs/> (last visited Oct. 24, 2019); Verizon, 5G Mobile FAQs, <https://www.verizonwireless.com/support/5g-mobile-faqs> (includes list of 30 geographic markets) (last visited Oct. 24, 2019); Mike Dano, *Verizon Promises Overhauled Fixed Wireless 5G Service Later This Year* (Sept. 11, 2019), <https://www.lightreading.com/mobile/5g/verizon-promises-overhauled-fixed-wireless-5g-service-later-this-year/d/d-id/754057>.

¹⁴⁴ See Starry Comments, WT Docket. No. 19-71, at 1 n.1 (filed June 3, 2019) (listing Boston, Washington, DC, Los Angeles, New York City, and Denver as areas for deployment); see also Letter from Virginia Lam Abrams, Starry Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 14-177 (filed Oct. 14, 2019) (updating its "progress in deploying a nationwide, next-generation, gigabit-capable fixed wireless network"); Monica Allevan, *Starry Prepares for 24 GHz Deployments*, FierceWireless (June 24, 2019), <https://www.fiercewireless.com/wireless/starry-prepares-for-24-ghz-deployments>.

¹⁴⁵ See Mike Wendy, Claude's Blog: Urban WISP DC Access Brings Capital Competition (Aug. 23, 2019), <http://www.wispa.org/Wispa-News/ArtMID/13028/ArticleID/3102/CategoryID/37/CategoryName/WISPA-President/Claudes-Blog-Urban-WISP-DC-Access-Brings-Capital-Competition> ("While the majority of WISPA members are laser-focused on rural markets, several WISPA members have taken it upon themselves to provide affordable, high-speed broadband competition in urban markets as well.").

¹⁴⁶ Transcript of AT&T Q4 2018 Earnings Conference Call (Jan. 30, 2019), <https://www.fool.com/earnings/call-transcripts/2019/01/30/att-inc-t-q4-2018-earnings-conference-call-transcr.aspx>; see also *Restoring Internet Freedom Order*, 33 FCC Rcd at 387-88, para. 130 (finding that mobile broadband providers "exert . . . pressure on fixed, including fixed wireline, Internet access supply," which "will become even more significant" with "the advent of 5G"); *Triennial Review Order*, 18 FCC Rcd at 17109, para. 208 (explaining that in considering whether competitors are impaired without access to loop facilities, the Commission "considers alternative transmission technologies that are capable of providing transmission to individual customers as alternatives to the incumbent LEC's loop facility," including cable and fixed wireless.); *id.* at 17127-28, para. 246 ("[W]e expect intermodal platforms to become

(continued....)

consistent with the observations in the *2018 Communications Marketplace Report*, where the Commission noted that advancements in fixed wireless service technology will produce speeds that will ultimately rival what can be offered by fiber.¹⁴⁷ Indeed, even certain parties opposing USTelecom's recent request for forbearance noted that 5G "is ideally suited for urban areas with high building density."¹⁴⁸ The Commission has also acted to lower barriers to entry and thereby spur further intermodal competition by opening additional spectrum for licensed and unlicensed uses,¹⁴⁹ streamlining the process of small cell siting,¹⁵⁰ and modernizing pole attachment rules to reduce the cost and time it takes to string fiber on poles.¹⁵¹ We propose to find on the basis of these factors taken together that entry barriers have been reduced and, in many areas, eliminated so significantly that a reasonably efficient competitor is no longer impaired without access to UNE DS0 Loops in urban census blocks and that unbundling of DS0 loops in such areas is no longer warranted. We seek comment on this proposal. Do commenters agree that the increasing wireless broadband deployment and entry in urban areas constitute evidence that a reasonably efficient competitor using reasonably efficient technologies is not impaired without access to these UNEs?

41. In these urban areas where advanced services are available to consumers from providers that do not rely on UNE DS0 Loops, we believe a continued DS0 unbundling requirement will artificially and unnecessarily slow the consumer transition away from services provided over legacy copper loops to more advanced networks and services.¹⁵² We therefore believe that eliminating DS0 unbundling in urban areas would better advance the 1996 Act's goal of broadband deployment.¹⁵³ Furthermore, new entrants using fixed wireless and other technologies may specifically target the relatively few urban areas with

(Continued from previous page) _____

increasingly a substitute for wireline voice telephony services and for wireline broadband services. . . . The presence of such alternatives in the future may enable us to find that requesting carriers are no longer impaired in their ability to compete without access to incumbent LEC loops.").

¹⁴⁷ See *2018 Communications Marketplace Report*, 33 FCC Rcd at 12649-50, para. 181 & n.579 (discussing how "fixed wireless providers are more likely to serve rural and suburban markets" but that improving speeds may make the service "a more attractive option for more consumers").

¹⁴⁸ See New America's Open Technology Inst. et al. Comments at 22. Relatedly, the Commission has long recognized that the costs for new deployment are significantly lower in urban areas. See *Triennial Review Order*, 18 FCC Rcd at 17107, para. 205 (explaining that while fixed costs for constructing loops were "quite high," there were potentially economies of scale in urban areas reducing these costs, as compared to rural areas with "more distant, geographically dispersed customers"). Indeed, one of the key assumptions of the Commission's Connect America Fund model, which determines how scarce universal service funds are allocated for high-cost areas, is that broadband deployment costs less in urban areas than in rural areas. See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087, 3141, para. 142 (2016) (noting that "[l]ower-cost areas are generally lower cost because of the presence of a dense cluster of consumers, which causes the cost per loop to be lower").

¹⁴⁹ See, e.g., *2019 Broadband Deployment Report*, 34 FCC Rcd at 3894-96, paras. 67-70; *Wireless Telecommunications Bureau and Office of Engineering and Technology Approve Five Spectrum Access System Administrators to Begin Initial Commercial Deployments in the 3.5 GHz Band*, GN Docket No. 15-319, Public Notice, DA 19-915 (Sept. 16, 2019); *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, Fourth Report and Order, 33 FCC Rcd 12168 (2018).

¹⁵⁰ See generally *2018 Wireless Infrastructure Order*, 33 FCC Rcd 9088 (adopting small cell siting reforms).

¹⁵¹ See *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment et al.*, Third Report and Order and Declaratory Ruling, 33 FCC Rcd 7705 (2018) (adopting revised pole attachment procedures, such as one-touch make-ready, intended to streamline the pole attachment process).

¹⁵² See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6510-11, paras. 14-16.

¹⁵³ See *USTA II*, 359 F.3d at 580 (holding that "the Commission reasonably interpreted § 251(c)(3) [and section 706] to allow it to withhold unbundling orders, even in the face of some impairment, where such unbundling would pose excessive impediments to infrastructure investment"); *Triennial Review Order*, 18 FCC Rcd at 17087-88, para. 173.

only one 25/3 Mbps provider as offering the most economically-feasible case for entry, because of the density and relative lack of competition in these areas, particularly if UNE DS0 Loops are no longer available. We seek comment on these views.

42. We believe basing a finding of non-impairment at the urban census block level would be administratively workable to implement as both incumbent and competitive LECs are familiar with census block metrics as a result of the Commission's Form 477 broadband deployment reporting obligations, and urban versus rural census blocks are identifiable based on the Census Bureau's publicly available designations.¹⁵⁴ Do commenters agree? If basing a non-impairment finding on census blocks would raise administrative difficulties, how might we ease or address them?

43. In proposing relief for UNE DS0 Loops, we do not propose to distinguish between residential and enterprise services.¹⁵⁵ We note that within price cap counties that have been deemed competitive by the *BDS Order* for business data services, including DS1 services, 95% of census blocks with business demand had at least one competitive provider.¹⁵⁶ Based on the present record, we do not foresee a need that would justify different treatment for UNE DS0 Loops based on their use. We seek comment on this view.

44. Competitive LECs stated that they use broadband-capable UNE DS0 Loops to create new services not provided by incumbent LECs by bonding multiple loops and/or placing their own electronics on them to provide high-speed broadband and voice service to their customers.¹⁵⁷ Competitive LECs also commented that they use these loops as bridges to deployment of next-generation networks, and asserted that no meaningful alternatives for consumers exist for these loops.¹⁵⁸ Incumbent LECs asserted that they are developing or have already developed broadband alternatives that may not have existed when the competitive LEC first entered those areas.¹⁵⁹ We seek comment on these competing assertions. Are there *urban* census blocks where incumbent LECs currently only provide legacy, or no, DSL service and where a competitive LEC supplies high-speed broadband over UNE DS0 Loops? If so, where? And would granting relief promote or deter additional investment in high-speed facilities in such areas?

¹⁵⁴ See United States Census Bureau, 2010 Census Summary File 1 at 2-8, Fig. 2-5 (Sept. 2012), <https://www.census.gov/prod/cen2010/doc/sf1.pdf> (providing instructions on how to use Census data and designating "UR" as the relevant "data dictionary reference" for an urban or rural classification); United States Census Bureau, Summary File 1 (Apr. 2, 2013), https://www2.census.gov/census_2010/04-Summary_File_1/ (providing state data).

¹⁵⁵ See, e.g., Sonic Telecom Opposition at 3 (arguing that some UNE DS0 Loops are used for enterprise services); TPx Opposition at 3.

¹⁵⁶ *BDS Order*, 32 FCC Rcd at 3481, para. 42.

¹⁵⁷ See, e.g., Sonic Telecom Opposition at 17; CALTEL Comments at 15; INCOMPAS et al. Opposition at 4, 7; Declaration of Dan Bubb at 2-3, Attach. 9 to INCOMPAS et al. Opposition.

¹⁵⁸ See, e.g., INCOMPAS et al. Opposition at 4; Declaration of Dan Bubb at 2-4, Attach. 9 to INCOMPAS et al. Opposition; Declaration of Douglas Denney at ¶¶ 9, 11, 15, Attach. 4 to INCOMPAS et al. Opposition; First Communications Opposition at 2; Access Point et al. Opposition at 5-6; Electronic Frontier Foundation Comments at 3; INCOMPAS Reply at 6-7; Sonic Telecom Reply at 44; CALTEL Reply at 7, 9; Public Knowledge et al. Reply at 4.

¹⁵⁹ See, e.g., USTelecom Reply, Exh. A at n.32 ("CenturyLink offers a DS0 alternative in the Omaha wire center, where all of its unbundling obligations have been eliminated. Verizon offers Special Access 64k voice grade service as a substitute for DS0 analog and Digital Data Service (DDS) 64 kbps circuits as a replacement for DS0 digital."); CenturyLink Reply at 23-24; Frontier May 28, 2019 Reply at 8; Letter from James P. Young, Sidley Austin LLP, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed Feb. 21, 2019) (stating AT&T's intention "to make DS0 loops available pursuant to commercial agreements"); CenturyLink May 28, 2019 Reply at 2.

45. Some competitive LECs have contended that customer preference for TDM-based and line-powered services supports maintaining unbundling requirements,¹⁶⁰ while incumbent LECs have argued that such preferences are irrelevant to an analysis of whether to forbear from the UNE regime.¹⁶¹ We concluded for purposes of our forbearance analysis in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order* that “we [] are not persuaded that the Commission must ‘protect’ every preference some customers might have, especially in the face of alternative options for obtaining voice services.”¹⁶² Do different considerations apply here? Should an impairment analysis consider the extent to which our unbundling requirements may artificially protect users of legacy technologies from market forces that would otherwise provide price signals encouraging the transition to next-generation technologies?¹⁶³

46. Does evidence that incumbent LECs offered UNE-platform (UNE-P) replacement products when the UNE-P obligation was eliminated support incumbent LEC suggestions that they intend to offer UNE DS0 Loop replacement products on a commercially negotiated basis?¹⁶⁴ How, if at all, should such a possibility factor into an impairment or forbearance analysis?

47. Our current copper retirement rules permit incumbent LECs to obtain relief from the unbundling requirements for DS0 loops by deploying fiber or other next-generation networks and then retiring their copper facilities pursuant to our network change disclosure rules.¹⁶⁵ We seek comment on whether the availability of this option has any bearing on the need for unbundling relief.¹⁶⁶ What impact, if any, does an incumbent LEC’s ability to achieve relief equivalent to forbearance have on competitive

¹⁶⁰ See, e.g., Granite Opposition at 20; Letter from Thomas Jones, Willkie Farr & Gallagher LLP, Counsel for Granite Telecomms., LLC et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 2 (Nov. 19, 2018); see also Declaration of John Hoehne at ¶ 10, Attach. 3 to INCOMPAS et al. Opposition; Declaration of Douglas Denney at ¶ 16, Attach. 4 to INCOMPAS et al. Opposition; Declaration of Jeff Buckingham at ¶ 8, Attach. 6 to INCOMPAS et al. Opposition.

¹⁶¹ See, e.g., CenturyLink Reply at 12-14.

¹⁶² *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6519, para. 31.

¹⁶³ Cf. *id.* at 6524, para. 42 (stating in the context of the relief we granted in price cap areas from Avoided-Cost Resale obligations that business customers “will not have access to those services at artificially reduced rates mandated by outdated regulations, and their end-user customers thus may be more inclined to transition to next-generation services”).

¹⁶⁴ See AT&T Reply at 22 (“ILECs will continue to offer the UNE-P replacement products they have been offering for more than a decade on a commercial basis, and AT&T is committed to offering a DS0 UNE loop replacement product, which will also be offered on a commercially negotiated basis.”); CenturyLink Reply at 23 (“Thirteen years after the Commission ended the UNE-P mandate, CenturyLink still generates substantial, though declining, revenues from its sale of commercial products that replaced UNE-P.”). But see Access Point et al. Opposition at 28 (arguing that the USTelecom forbearance petition was “bereft of any explanation of what services ILECs will offer to replace the voice and broadband services CLECs supply to millions of customers using UNEs and resale”); TPx Reply at 12 (“[T]he fact that ‘neither Frontier nor CenturyLink offer platform service in their legacy territories’ underscores that incumbent LECs do not have to—and have declined to—make available commercial replacement services.”).

¹⁶⁵ See 47 U.S.C. § 251(c)(5); 47 CFR §§ 51.325 *et seq.* Incumbent LECs may retire their copper facilities without the need to seek our authorization. 47 U.S.C. § 251(c)(5); 47 CFR §§ 51.325(a), 51.333.

¹⁶⁶ See, e.g., CALTEL Comments at 35-38; Access Point et al. Reply at 6-7 (asserting that incumbent LECs can, and have, availed themselves of existing regulatory relief by deploying fiber and retiring their copper facilities); Sonic Telecom Reply at 10 (“If Verizon or other ILECs wish to stop providing copper loops as unbundled network elements, they have the solution they need already—once they invest in fiber, their copper loop unbundling requirements end.”); TPx Reply at 11 (“The argument that unbundling deters investment ignores the fact that, under current rules, incumbent LECs are free to retire their copper facilities, relieve themselves of unbundling and resale obligations they now seek forbearance from, and upgrade to fiber.”).

LEC incentives to deploy their own facilities as expeditiously as possible?¹⁶⁷ If an incumbent LEC continues to maintain its copper facilities even after it has deployed last-mile fiber, should those copper facilities remain available to competitors via unbundling for the types of services customers nevertheless continue to demand?

48. In forbearing from the UNE Analog Loop obligation, we noted “the disincentive that continued unbundling mandates create for competitors to invest in their own facilities-based networks and transition their customers to next-generation services.”¹⁶⁸ Is there any reason to believe that different considerations apply with respect to UNE DS0 Loops? Does the economic cost of maintaining a DS0 unbundling requirement outweigh any benefit of allowing customers to continue relying on legacy services?

49. *Alternatives.* As an alternative to finding no impairment for DS0 loops in urban census blocks, should we forbear from DS0 loop unbundling requirements in urban census blocks with a minimum of 25/3 Mbps fixed service provided by at least two facilities-based, terrestrial providers without the use of UNEs?¹⁶⁹ We seek comment on this alternative and the three prongs of the forbearance test. Is the Commission’s conclusion in the *Restoring Internet Freedom Order* that the presence of two wireline Internet service providers “can be expected to produce more efficient outcomes than any regulated alternative” relevant to our consideration in this context?¹⁷⁰ If we were to use this alternative test, would a census block-by-census block forbearance decision be administrable from the standpoint of the Commission and affected LECs? Or should we aggregate up our analysis to a larger unit of measurement, such as counties?

50. For purposes of such a test, we would expect to include fixed wireless providers, but note that fixed wireless penetration rates are low in our most recent publicly available Form 477 data.¹⁷¹ Nonetheless, recent developments in fixed wireless services have lowered the barriers to entry by fixed wireless providers, and provided them with the means of bringing effective competition to urban areas. We seek comment on this analysis. Does the presence of fixed wireless providers in a census block mean that barriers to entry are low (suggesting no impairment of entry) or that competition is thriving (suggesting forbearance is appropriate)?

51. In the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, we concluded that “price cap LEC UNE Analog Loop obligations are unnecessary to ensure that the charges for voice services are just and reasonable.”¹⁷² Do different considerations apply for UNE DS0 Loops given their use for provisioning broadband service in addition to voice service?

¹⁶⁷ See, e.g., Report of David E.M. Sappington at 16, Attach. 1 to INCOMPAS et al. Opposition (“CLECs cannot view UNEs as a long-term substitute for their own fiber investment. Instead, they must view UNEs as a transitional means to reduce the risk associated with investment in their own network. UNEs thereby enhance, rather than discourage, CLEC broadband investment.”); Declaration of William Zarakas at ¶ 18, Attach. 2 to INCOMPAS et al. Opposition (“[R]eliance on UNE-based services is not a viable long-term option for CLECs like Sonic – if they want to remain in business. Under existing rules, ILECs will eventually upgrade their networks to fiber and retire their copper-based networks, at least in geographic areas with moderate population densities, which will mean that bare copper UNEs will not be available for CLECs to lease indefinitely.”).

¹⁶⁸ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6511, para. 16.

¹⁶⁹ See *2018 Communications Marketplace Report*, 33 FCC Rcd at 12654-55, para. 187, Fig. D-3.

¹⁷⁰ See *Restoring Internet Freedom Order*, 33 FCC Rcd at 384-85, para. 126.

¹⁷¹ See FCC, Office of Economics & Analytics, Industry Analysis Division, *Internet Access Services: Status as of December 31, 2017* at Fig. 23 (Aug. 2019); Form 477 deployment data for fixed wireless services.

¹⁷² *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6516, para. 25.

c. UNE Narrowband Voice-Grade Loops

52. Under our rules, incumbent LECs must provide three specific types of unbundled narrowband voice-grade loops: UNE Analog Loops,¹⁷³ 64 kbps voice-grade channels over last-mile fiber loops when an incumbent LEC retires copper,¹⁷⁴ and the TDM capabilities of hybrid loops.¹⁷⁵ Voice-grade loops are used almost exclusively for the provision of voice-grade service, which we have found customers are migrating away from in favor of IP- and wireless-based voice services provided by multiple intermodal providers. These include facilities-based fixed voice providers such as cable companies providing VoIP, mobile wireless facilities-based providers and resellers, and VoIP providers offering over-the-top services via broadband.¹⁷⁶

53. We propose to eliminate these unbundling obligations nationwide as competitors do not face significant barriers to entering the voice-service marketplace.¹⁷⁷ Indeed, incumbent LECs provided only about 12% of voice subscriptions in 2017.¹⁷⁸ As we have previously found, rather than a foothold for new entrants into the marketplace, these legacy regulatory obligations have become a vice, “trapping incumbent LECs into preserving outdated technologies and services at the cost of a slower transition to next-generation networks and services that benefit American consumers and businesses.”¹⁷⁹ We seek comment on our specific proposals for each of the three types of narrowband voice-grade copper loops described below.

54. In the alternative, should we instead find simply that the marketplace for voice-grade loops is “sufficiently competitive without the use of unbundling” as the Commission previously did for long-distance and mobile services?¹⁸⁰ The Commission declined to require that UNEs be made available for the exclusive provision of long distance and mobile wireless services based upon a finding that the marketplace for those services was competitive without reliance on UNEs.¹⁸¹ Does the degree of intermodal competition in today’s voice marketplace support finding that incumbent LECs should no longer be required to make UNEs available for the exclusive provision of voice services?¹⁸²

55. *UNE Analog Loops.* We propose to extend the forbearance for UNE Analog Loops to all remaining service areas where this unbundling obligation still applies. In the recent USTelecom forbearance proceeding, we granted relief from unbundling requirements for UNE Analog Loops to price cap incumbent LECs in their service areas.¹⁸³ We propose extending this forbearance relief nationwide for the same reasons we stated in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*,

¹⁷³ See 47 CFR § 51.319(a)(1).

¹⁷⁴ See *id.* § 51.319(a)(3)(iii). The Commission forbore from new 64 kbps unbundling obligations in 2015 but grandfathered existing users. See *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 66.

¹⁷⁵ See *id.* § 51.319(a)(2)(iii).

¹⁷⁶ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6507-10, paras. 9-12.

¹⁷⁷ See generally *2018 Communications Marketplace Report*, 33 FCC Rcd at 12663, para. 192, 12668-69, paras. 203-07.

¹⁷⁸ See FCC, Voice Telephone Services as of December 31, 2017, Tables: Nationwide and State-Level Data for 2008-present (Aug. 28, 2019), <https://www.fcc.gov/voice-telephone-services-report>.

¹⁷⁹ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6504, para. 3.

¹⁸⁰ *Triennial Review Remand Order*, 20 FCC Rcd at 2553, para. 35.

¹⁸¹ *Id.* at 2552, para. 34.

¹⁸² See, e.g., *2018 Communications Marketplace Report*, 33 FCC Rcd at 12668-69, paras. 203-07; see also Letter from Patrick R. Halley, Sr. V.P., Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 2-3 (filed June 20, 2019).

¹⁸³ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6504, paras. 2-3.

including the extensive intermodal competition present in the voice marketplace, the harmful marketplace distortions generated by outdated regulations, and the reduced incentives for both incumbent and competitive LECs to invest in their own facilities and to transition to next-generation networks.¹⁸⁴ We seek comment on this proposal.

56. Do the considerations in non-price cap areas differ from those in price cap areas with respect to these UNEs that can only be used to provision voice-grade service? Are any competitors purchasing these UNEs to provide voice services in non-price cap areas where other voice alternatives do not exist? Commenters should provide specific detail whether: (1) continued UNE Analog Loop requirements in non-price cap areas remain necessary to ensure that the charges, practices, classifications, or regulations are just and reasonable and are not unjustly or unreasonably discriminatory; (2) continued UNE Analog Loop requirements are necessary for the protection of consumers; and (3) forbearance from UNE Analog Loop requirements is consistent with the public interest.¹⁸⁵

57. Alternatively, should we find that competitors nationwide are no longer impaired without access to UNE Analog Loops in the face of the breadth of voice alternatives we described in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*?¹⁸⁶ Our conclusions in that *Order* were based on Form 477 data, which is collected on a nationwide basis.¹⁸⁷ Nevertheless, should we limit a non-impairment finding only to price cap areas where we have previously forbore? If so, what is the basis for such a limitation? We also seek comment on whether competitors in non-price cap areas remain impaired without access to these voice-grade only UNEs. Are there special or different circumstances we should consider for evaluating impairment in non-price cap incumbent LEC areas?

58. *Grandfathered 64 kbps Fiber Loops.* We propose to eliminate the requirement that competitive LECs continue to receive unbundled access to the previously grandfathered 64 kbps voice channels over fiber loops. We propose to reach this outcome whether evaluated under the impairment standard of section 251,¹⁸⁸ the forbearance criteria of section 10,¹⁸⁹ the general standards governing Commission action under provisions such as sections 4, 201(b), and 303(r),¹⁹⁰ or any combination thereof. We seek comment on this proposal. The Commission forbore from this requirement on a nationwide basis for all incumbent LECs in 2015, finding this unbundling burden on fiber deployment to be disproportionate to the “very limited” and decreasingly relevant purpose the requirement serves—to protect narrowband voice competition as networks transition from copper to fiber.¹⁹¹ At the same time, the Commission grandfathered the obligation as to existing UNE 64 kbps voice channels over fiber loops.¹⁹²

¹⁸⁴ See *id.* at 6508-12, paras. 11-18.

¹⁸⁵ 47 U.S.C. § 160(a).

¹⁸⁶ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509-10, paras. 12-13.

¹⁸⁷ See FCC, Voice Telephone Services as of June 30, 2017 (2019), <https://www.fcc.gov/voice-telephone-services-report>; see also *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509-10, paras. 12-13.

¹⁸⁸ See 47 U.S.C. § 251(d)(2) (“In determining what network elements should be made available for purposes of subsection (c)(3), the Commission shall consider, at a minimum, whether— . . . (B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.”).

¹⁸⁹ *Id.* § 160(a)(1)-(3) (setting forth the criteria for granting forbearance).

¹⁹⁰ See, e.g., *id.* §§ 154, 201(b), 303(r).

¹⁹¹ 2015 *USTelecom Forbearance Order*, 31 FCC Rcd at 6189-90, paras. 55, 57-58.

¹⁹² *Id.* at 6194, para. 66.

59. We propose to eliminate this grandfathered UNE 64 kbps voice channel obligation for two reasons. First, we believe it potentially delays the TDM-to-IP transition by locking incumbent LECs subject to the grandfathering provision into continuing to provide TDM service where they have upgraded their networks to fiber and advanced services are available. Second, we believe the continued cost to incumbent LECs of maintaining the legacy equipment and systems necessary to continue to support this obligation solely to protect narrowband legacy voice is no longer necessary in light of our prior findings about the state of the voice services marketplace. We seek comment on these views. Specifically, we seek comment on the effect the grandfathering requirement continues to have on incumbent and competitive LEC incentives to deploy next-generation networks and to transition customers to next-generation services that are available over such networks. In light of intermodal voice alternatives, would a reasonably efficient competitor deploy a narrowband network to provide voice service today?

60. To the extent competitors still rely on the grandfathered 64 kbps voice channel over fiber loops, we seek comment on whether such competitors remain impaired without access to this grandfathered requirement, and whether the three-part forbearance standard would be met for the same reasons they are met with respect to our UNE Analog Loop forbearance in price cap incumbent LEC service areas.¹⁹³ We believe that the respective costs already incurred by both incumbent and competitive LECs with respect to this grandfathered requirement is outweighed by the costs of continuing to obligate incumbent LECs to maintain and support this legacy equipment and service, and the societal costs that retaining this grandfathered unbundling obligation has on the transition to IP-based networks and services.¹⁹⁴ We seek comment on this belief, including what role it should play in our analysis. What benefits would be gained by eliminating this obligation? Would competitive LECs or consumers be harmed by eliminating their access to the grandfathered 64 kbps voice channel? Do any competitive LECs still use the grandfathered 64 kbps voice channel?

61. *TDM Capabilities of Hybrid Loops.* Hybrid loops are local loops “composed of both fiber optic cable, usually in the feeder plant, and copper wire or cable, usually in the distribution plant.”¹⁹⁵ Our rules currently require that incumbent LECs unbundle either (1) a TDM voice-grade capable 64 kbps channel or (2) a spare copper loop if the requesting carrier seeks to provide narrowband services, and only the TDM features, functions, and capabilities of hybrid loops if the requesting carrier seeks to provision broadband services.¹⁹⁶

62. For the same reasons we forbore from the UNE Analog Loop requirement in price cap incumbent LEC areas, we do not believe that UNE Hybrid Loops continue to be necessary for the provision of narrowband voice service. We thus propose granting nationwide forbearance from UNE Hybrid Loop requirements. We seek comment on this proposal. Are there circumstances specific to these hybrid loops that differ from UNE Analog Loops such that these unbundling requirements remain necessary for provisioning voice service? Commenters should provide specific detail why: (1) continued UNE Hybrid Loop requirements are necessary to ensure that the charges, practices, classifications, or regulations are just and reasonable and are not unjustly or unreasonably discriminatory; (2) continued

¹⁹³ See generally *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6516-6520, paras. 25-33.

¹⁹⁴ *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 66 (In grandfathering these UNEs already in use, the Commission noted: “[T]he incumbent has already incurred the equipment costs and related costs of provisioning the channel Meanwhile, a competitive LEC . . . will have reasonably incurred costs in putting the channel to use Relieving an incumbent of its unbundling obligation in these circumstances would risk stranding the competitor’s investment with no clear offsetting benefit to the incumbent.”).

¹⁹⁵ 47 CFR § 51.319(a)(2). In the *Triennial Review Order*, the Commission declined to order unbundling of the packet-based capabilities of hybrid loops. *Triennial Review Order*, 18 FCC Rcd at 17149-54, paras. 288-95, *aff’d*, *USTA II*, 359 F.3d at 579-82.

¹⁹⁶ 47 CFR § 51.319(a)(2)(ii)-(iii) (UNE Hybrid Loops).

UNE Hybrid Loop requirements are necessary for the protection of consumers; and (3) forbearance from UNE Hybrid Loop requirements is consistent with the public interest.¹⁹⁷ Do any competitive LECs today use the unbundled TDM capabilities of hybrid loops to provision any broadband services?

63. We note that no commenter has claimed to use the TDM capabilities of hybrid loops to provide broadband service. Is that correct? To the extent that any hybrid loops are currently being used to provide TDM-based broadband services, would nationwide relief for hybrid loop unbundling requirements better promote the transition to next-generation networks, including the replacement of the remaining copper in hybrid loops with fiber? Do incumbent LECs have hybrid loops in rural census blocks such that nationwide elimination of these UNEs would eliminate consumer access to broadband in those areas? If so, should we consider providing more limited geographic relief, such as only in urban census blocks, consistent with our proposals for UNE DS0 Loops above?

64. Alternatively, we seek comment on whether we should find that competitors are no longer impaired without unbundled access to the TDM-capabilities, features, and functionalities of hybrid loops. In the 2003 *Triennial Review Order*, the Commission concluded that competitors were impaired on a nationwide basis without access to these UNEs for serving mass market customers.¹⁹⁸ The Commission went on to note, however, that this impairment would diminish over time as more and more fiber is deployed.¹⁹⁹ Has sufficient fiber been deployed in the sixteen years since the *Triennial Review Order* such that competitors are no longer impaired without access to UNE Hybrid Loops for the purpose of serving mass market residential customers? In today's marketplace, would a reasonably efficient competitor using reasonably efficient technology seek to provide voice service using the TDM capabilities of hybrid loops? Would a reasonably efficient competitor using reasonably efficient technology seek to provide broadband service using the TDM capabilities of hybrid loops? Recognizing that hybrid loops are an important step in the deployment of fiber to the home, does any continued unbundling obligation with respect to these loops, either for broadband or narrowband services, threaten to frustrate deployment of and transition to next-generation networks and services? Commenters should specify whether any impairment or non-impairment faced by competitors occurs on a nationwide basis or only in certain geographic areas. Commenters should also provide data to support their contentions.

d. Subloops

65. Subloops are portions of a loop or "smaller included segment[s] of an incumbent LEC's local loop plant."²⁰⁰ Subloops are generally ordered with the intention of taking "the competitor all the way to the customer."²⁰¹ Our rules impose UNE obligations for two types of subloops—copper and multiunit premises subloops.²⁰² The Copper UNE Subloop is a portion of a copper loop, or hybrid loop, comprised entirely of copper wire or copper cable that acts as a transmission facility between any point of technically feasible access in an incumbent LEC's outside plant and the end-user customer premises.²⁰³ The Copper UNE Subloop includes inside wire owned or controlled by the incumbent LEC and the

¹⁹⁷ 47 U.S.C. § 160(a).

¹⁹⁸ *Triennial Review Order*, 18 FCC Rcd at 17148, para. 286.

¹⁹⁹ *Id.*

²⁰⁰ *Id.* at 17184-85, para. 343 (explaining it is "a portion of the loop from some technically accessible terminal beyond the incumbent LEC's central office and the network demarcation point, including that portion of the loop, if any, which the incumbent LEC owns and controls inside the customer premises").

²⁰¹ *Id.* at 17195, para. 353 n.1066.

²⁰² 47 CFR § 51.319(b)(1) (Copper UNE Subloop), (b)(2) (Multiunit Premises UNE Subloop). Subloop unbundling obligations only apply to incumbent LECs' distribution loop plant. *Triennial Review Order*, 18 FCC Rcd at 17132, para. 254; *see also id.* at 17141, para. 272 (declining to "attach unbundling requirements to the next-generation network capabilities of fiber-based local loops").

²⁰³ 47 CFR § 51.319(b)(1).

features, functions, and capabilities of the copper loop.²⁰⁴ Incumbent LECs must provide competitive LECs unbundled access to Copper UNE Subloops for the provision of narrowband and broadband services.²⁰⁵

66. The Commission's rules separately address Multiunit Premises UNE Subloops due to previously-found specific "impairments associated with facilities-based entry in multiunit buildings or campus environments."²⁰⁶ Incumbent LECs must offer unbundled access to these subloops necessary to access wiring at or near a multiunit customer premises, i.e., all incumbent LEC loop plant between the minimum point of entry at a multiunit premises and the point of demarcation.²⁰⁷ Unlike Copper UNE Subloops, the Multiunit Premises UNE Subloop includes the entirety of the loop plant regardless of the capacity level or type of loop the requesting carrier will provision to its customer, that is, including fiber or hybrid loops.²⁰⁸ Some competitive LECs state that they use Multiunit Premises UNE Subloops to "access loops otherwise unavailable because of fiber feeder."²⁰⁹ The Multiunit Premises UNE Subloop also includes any inside wiring owned and controlled by the incumbent LEC.²¹⁰

67. We propose to forbear or find no impairment with respect to UNE Subloops in the particular instances or geographic areas where we propose to eliminate the underlying loop to the customer's premises, either by forbearance or finding no impairment. We seek comment on this proposal. We base our proposal on the same factors and reasoning upon which we propose relief applicable to each of the underlying Copper UNE Loops discussed above.²¹¹ We do not believe the public interest would be served by maintaining Copper UNE Subloops in areas where the end-to-end UNE Loop obligations have been eliminated. We seek comment on this view.

68. We believe competitive LECs' ability to serve their current customer base with their own facilities-based network will be unaffected if we eliminate Copper UNE Subloop obligations, noting that incumbent LECs indicate that they sell a negligible number of Copper UNE Subloops.²¹² Do commenters agree? If not, commenters should specify which types of services, customers, and geographic areas they believe our Copper UNE Subloop unbundling proposal would impact. If these unbundled subloops are eliminated, will incumbent LECs still provide competitive LECs access to subloops on a commercial basis to the extent such access is sought? Are there alternatives for competitive LECs to reach their end-user customers if we eliminate Copper UNE Subloop obligations? We also believe that eliminating Copper UNE Subloops in the same instances where we propose to eliminate the underlying UNE Loop obligation will be administratively feasible. Do commenters agree? If not, how might we ease any administrative difficulties?

69. We seek more specific comment on the Multiunit Premises UNE Subloop. We note that these particular unbundling obligations largely came about to address issues related to facilities-based competitors accessing the customer's location where access to the premises was controlled or managed by

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ *Triennial Review Order*, 18 FCC Rcd at 17187, para. 345, 17189-93, paras. 347-51, 17195-96, paras. 354-55.

²⁰⁷ 47 CFR § 51.319(b)(2).

²⁰⁸ *Id.*; see also INCOMPAS et al. Opposition at 23 (noting that "[o]nly for subloops for access to multiunit premises wiring do incumbent LECs have to provide unbundled access without regard to the capacity level or type of loop").

²⁰⁹ INCOMPAS Reply in Support of Cox Motion, WC Docket No. 18-141, at 4 (filed Sept. 5, 2018).

²¹⁰ 47 CFR § 51.319(b)(2).

²¹¹ See *supra* Sections III.A.1.a-c.

²¹² See, e.g., AT&T July 23, 2018 *Ex Parte* Letter at 1.

someone other than the customer.²¹³ Should we treat the Multiunit Premises UNE Subloop differently from the Copper UNE Subloop? Competitive LECs assert that special barriers still exist to accessing multiunit premises.²¹⁴ Are they correct, and if so, do such barriers justify retaining unbundled access to subloops for multiunit premises wiring?²¹⁵ Are these barriers independent of accessing the Multiunit Premises UNE Subloop, such that retaining this unbundled element would still not enable competitive LECs to access customers in such premises? Are there alternatives to Multiunit Premises UNE Subloops to access multiunit premises? Do the Commission's rules prohibiting LECs from entering into exclusive access contracts with the owners of residential and commercial multi-tenant environments make unbundled access to these subloops unnecessary?²¹⁶ We seek comment on any issues we should consider in evaluating the extent to which Multiunit Premises UNE Subloops should remain available on an unbundled basis to best further the objectives of the Act.

2. UNE Dark Fiber Transport

70. Dark fiber transport is deployed fiber optic cable between incumbent LEC wire centers that has not been "lit" through the addition of optronic equipment that would make it capable of carrying telecommunications.²¹⁷ This dark fiber facility is typically referred to as "interoffice dark fiber." The Commission's transport unbundling rules define when an incumbent LEC is required to unbundle its interoffice dark fiber and make it available to a requesting carrier.²¹⁸ Where so obligated, the incumbent LEC must lease its unlit fiber, subject to availability, enabling the competitive LEC to use such dark fiber as if it were part of its own fiber network. Thus, after deploying its own electronics to light the dark fiber, the competitive LEC is able to provision service to end users served from the wire center to which the unbundled dark fiber transport terminates.²¹⁹

71. In the *Triennial Review Remand Order*, the Commission applied the impairment standard to limit the extent to which incumbent LECs are required to provide UNE Dark Fiber Transport.²²⁰ The Commission concluded that competitive LECs are not impaired without access to UNE Dark Fiber

²¹³ See *Triennial Review Order*, 18 FCC Rcd at 17190, para. 348; see also Cox Motion for Partial Summary Denial, WC Docket No. 18-141, at 6 (filed Aug. 6, 2018) (Cox Motion) (asserting "[m]ultiunit premises subloops enable competitors to access business and residential customers in commercial buildings with their own outside loop").

²¹⁴ See, e.g., INCOMPAS et al. Opposition at 28-29 ("As INCOMPAS explained in a separate proceeding, would-be competitive entrants have routinely had property owners refuse access to [MTEs] despite receiving unsolicited orders for highspeed broadband service from tenants that were dissatisfied by the choices presented to them[.] Furthermore, revenue-sharing arrangements between landlord and incumbent providers, which have become common, mean that landlords have no incentive to grant access to competitive providers when any subscriber gained by that provider means reduced income to the landlord.") (footnote and internal quotation marks omitted).

²¹⁵ See generally *Improving Competitive Broadband Access to Multiple Tenant Environments; Petition for Preemption of Article 52 of the San Francisco Police Code Filed by the Multifamily Broadband Council*, GN Docket No. 17-142, MB Docket No. 17-91, Notice of Proposed Rulemaking and Declaratory Ruling, 34 FCC Rcd 5702 (2019); see also *Promotion of Competitive Networks in Local Telecommunications Markets*, WT Docket No. 99-217, Report and Order, 23 FCC Rcd 5385 (2008); *Promotion of Competitive Networks in Local Telecommunications Market et al.*, WT Docket No. 99-217, CC Docket Nos. 96-98, 88-57, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 22983 (2000) (banning common carriers from entering into exclusive access contracts with premises owners).

²¹⁶ See 47 CFR § 64.2500.

²¹⁷ See *Triennial Review Remand Order*, 20 FCC Rcd at 2607, para. 133; see also *BDS Order*, 32 FCC Rcd at 3476-77, para. 35.

²¹⁸ See 47 CFR § 51.319(d)(2)(iv) (UNE Dark Fiber Transport).

²¹⁹ See *Triennial Review Remand Order*, 20 FCC Rcd at 2607-09, paras. 133-35; see also Verizon Comments at para. 30.

²²⁰ See *id.* at 2576, para. 66.

Transport when both wire centers are classified as either Tier 1 or Tier 2, reasoning that on such routes, “a reasonably efficient competitor has, or could, duplicate the facilities of the incumbent LEC.”²²¹ As a result, all UNE Dark Fiber Transport that is leased today involves at least one Tier 3 wire center end point.²²²

72. In the recent *UNE Transport Forbearance Order*, we unanimously forbore from UNE DS1/DS3 Transport obligations for price cap incumbent LECs at wire centers within a half mile of competitive fiber. We concluded that the presence of nearby competitive fiber creates a sufficiently dynamic marketplace as to protect competition and consumers as well as further the public interest, and forbearance was therefore warranted.²²³

73. Consistent with the analysis in the *UNE Transport Forbearance Order*, we propose finding that competitive LECs are not impaired without access to unbundled dark fiber transport to wire centers that are within a half mile of alternative fiber.²²⁴ We seek comment on this proposal. Our proposal is based on concluding that a reasonably efficient competitor within a half mile of alternative fiber would not be impaired without access to UNE Dark Fiber Transport because it should be able to obtain such transport, if available, on a commercial basis at competitive rates,²²⁵ or by building its own transport network.²²⁶ In the *BDS Order*, the Commission assumed that the presence of a second wireline provider, in addition to the incumbent LEC, is sufficient to discipline prices for transport in areas with high fixed costs.²²⁷ We affirmed this finding in the *BDS Remand Order*.²²⁸ We infer that this same assumption would apply with respect to dark fiber assuming both the incumbent LEC and the second provider having the nearby competitive fiber network each have dark fiber available for lease. Is this assumption reasonable? Our proposal is also informed by the Commission’s observation in the *Triennial*

²²¹ See *id.* at 2607-08, para. 134. For purposes of UNE Dark Fiber Transport, a Tier 1 wire center has at least four fiber-based collocators or at least 38,000 business lines, or both. 47 CFR § 51.319(d)(3)(i). A Tier 2 wire center is one that does not qualify as Tier 1 but has at least three fiber-based collocators or at least 24,000 business lines, or both. *Id.* § 51.319(d)(3)(ii). All other wire centers are Tier 3. *Id.* § 51.319(d)(3)(iii).

²²² See *Triennial Review Remand Order*, 20 FCC Rcd at 2607, para. 133 (“[C]ompeting carriers are not impaired without access to unbundled dark fiber transport on routes connecting wire centers where both of the wire centers are classified as either a Tier 1 or Tier 2 wire center because we recognize that competitive transport facilities have been or can be deployed between such wire centers.”). Tier 3 wire centers are all wire centers that are not classified as Tier 1 or Tier 2 wire centers. *Id.* at 2604, para. 123. The Commission has described Tier 3 wire centers as those that “show a generally low likelihood of supporting actual or potential competitive transport deployment.” *Id.* at 2597, para. 111. We refer to these Tier 3 wire centers as “UNE triggering” wire centers.

²²³ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5790-91, para. 52.

²²⁴ The wire centers that we propose would no longer be subject to UNE Dark Fiber Transport obligations are those for which the Commission granted forbearance from UNE DS1/DS3 Transport obligations in the *UNE Transport Forbearance Order*. See *id.* at 5795, para. 59 n.195; *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141, Public Notice, DA 19-733 (WCB Aug. 1, 2019) (releasing list of over 11,000 wire centers).

²²⁵ Cf. *Triennial Review Remand Order*, 20 FCC Rcd at 2593-94, paras. 101, 103, 2626-27, paras. 168-69 (explaining that the Commission adopted the tier classifications for wire centers as “proxies” for competition, particularly the presence of competitive fiber).

²²⁶ See *Covad Commc’ns Co.*, 450 F.3d at 546 (affirming Commission’s decision not to require unbundling for certain DS1 transport services because of the evidence of “availability of wholesale transport” and “the potential for CLECs to self-deploy DS1 transport”).

²²⁷ *BDS Order*, 32 FCC Rcd at 3484, para. 53, 3514-15, para. 120; see also *Restoring Internet Freedom Order*, 33 FCC Rcd at 384-85, para. 126.

²²⁸ *BDS Remand Order*, 34 FCC Rcd at 5776, para. 17.

Review Remand Order that “competing carriers that use UNE Dark Fiber transport actively seek out wholesale alternatives to the incumbent LEC’s fiber facilities.”²²⁹ Does this observation still hold?

74. Our forbearance analysis in the *UNE Transport Forbearance Order* relied on the proximity of a price cap incumbent LEC wire center to competitive lit fiber. Commenters in that proceeding claimed that lit fiber is no commercial substitute for dark fiber.²³⁰ However, we do not propose to consider the substitutability of lit and dark fiber to be relevant in an impairment analysis. While the Commission has previously differentiated lit from dark fiber,²³¹ that has no bearing on the fact that the existence of a nearby fiber network suggests the ability of a reasonably efficient competitor to self-provision its own fiber network in competition with the incumbent LEC, regardless of whether that network owner offers lit fiber services or dark fiber facilities.²³² We seek comment on whether our conclusion that the existence of a nearby competitive fiber network within a half mile necessarily implies an ability of at least one reasonably efficient competitor having the ability to deploy its own fiber such that we can reasonably infer no impairment for other competitors.

75. We also seek comment on whether we should supplement the list of incumbent LEC wire centers for which we propose to find non-impairment for UNE Dark Fiber Transport by adding any Tier 3 wire centers that are within a half mile—or potentially some longer distance—of Tier 1 or Tier 2 wire centers. Could we infer no impairment as to these wire centers, due to the proximity of either fiber-based competitors or business line density at the nearby Tier 1 and Tier 2 wire centers? We note that in the *BDS Order*, the Commission observed that competitive providers sometimes build “more circuitous route[s] in anticipation of additional demand” than the existing incumbent LEC’s route between wire centers.²³³ Moreover, we are cognizant of the *USTA II* court’s discussion of how we must consider “facilities deployment along similar routes when assessing impairment.”²³⁴ Should we consider this as a separate stand-alone proposal for unbundling relief from UNE Dark Fiber Transport obligations? We observe that some wire centers that are classified as Tier 3 facilities are apparently located in urban areas, which would suggest similar business line density and the likely presence of nearby Tier 1 or Tier 2 wire centers.²³⁵ If we were to undertake a one-time analysis to supplement the list based on existing Tier 3 wire centers, we do not believe this would be administratively difficult. Do commenters agree? Could we rely on the wire center locations as set forth in the Local Exchange Routing Guide to determine the necessary geocoordinates to conduct such an analysis? Are there other publicly available sources that would provide better wire center location information? We ask commenters to generally comment on any administrative burdens associated with wire centers for the purposes of this supplemental proposal.

76. Are there other alternative criteria upon which we should base an impairment analysis? For example, should we find that competitive LECs are not impaired without access to UNE Dark Fiber

²²⁹ *Triennial Review Remand Order*, 20 FCC Rcd at 2608, para. 134.

²³⁰ See, e.g., Sonic Telecom May 9, 2019 Comments at 5 (“[L]eased lit fiber services are not a reasonable substitute for the unbundled dark fiber. . . .”); INCOMPAS May 9, 2019 Comments at 19 n.48 (“In the case of dark fiber transport, there is not a comparable substitute, and wholesale lit transport is several orders of magnitude more expensive.”).

²³¹ *Triennial Review Remand Order*, 20 FCC Rcd at 2613, para. 144 (“[W]e find that ‘lit’ DS3 or OCn services are sufficiently different from dark fiber not to qualify as a ready substitute.”).

²³² Cf. Verizon May 9, 2019 Reply at 7 (“[T]he relevant inquiry is not whether other competitors are making available dark fiber to [competitive LECs], but whether competition exists.”).

²³³ *BDS Order*, 32 FCC Rcd at 3481, para. 42.

²³⁴ *USTA II*, 359 F.3d at 575.

²³⁵ See, e.g., <http://www.centurylink.com/wholesale/clecs/nta.html#nonimp> (Select an Attachment > Dedicated Transport and DS1, DS3 Loops) (indicating Tier 3 wire centers located, for example, in Denver, Colorado, and Seattle, Washington).

Transport at Tier 3 wire centers where some threshold percentage of end users served by the wire center has access to at least two facilities-based providers at 25/3 Mbps without the use of UNEs? If so, should we exclude satellite and mobile service providers from counting as a facilities-based provider for this test?²³⁶ Should we conclude that a reasonably efficient competitor that serves such end users could secure its own transport services without the benefit of UNE Dark Fiber Transport because at least one other non-incumbent LEC facilities-based provider has been able to serve end users without access to UNE Dark Fiber Transport? Are there advantages and disadvantages to using this test? Is it reasonable to infer that a confirmed 25/3 Mbps end user in a service area indicates the existence of transport alternatives to support a finding of non-impairment? What would be the appropriate number of, or percentage of, subscribers served by an individual wire center for us to make this determination? Should we aggregate subscribers at multiple wire centers in a geographic area? Is it necessary for the Commission to identify all Tier 3 wire centers *ex ante*, before concluding whether a finding of non-impairment is appropriate, and, if so, through what public sources would the Commission be able to create a comprehensive list of such wire centers?

77. Or, should we extend forbearance to UNE Dark Fiber Transport obligations for the same wire centers subject to our UNE DS1/DS3 Transport forbearance? What factors would differ in considering forbearance for unbundled dark fiber transport from forbearance for lit unbundled transport? In its 2018 forbearance petition, USTelecom initially sought nationwide forbearance relief from all transport unbundling obligations, including UNE Dark Fiber Transport.²³⁷ Before USTelecom withdrew its request for forbearance from UNE Dark Fiber Transport obligations,²³⁸ commenters provided sharply contrasting views as to whether the forbearance standard could be met for granting such relief.

78. Incumbent LECs generally disputed the relevance of UNE Dark Fiber Transport in today's marketplace, pointing to how few such UNEs are leased from the largest incumbent providers.²³⁹ Verizon, for example, claimed that it both buys a *de minimis* amount of UNE Dark Fiber Transport and sells very small volumes.²⁴⁰ USTelecom described competitive LECs' use of UNE Dark Fiber Transport as playing a "negligible role in the marketplace."²⁴¹ Moreover, USTelecom observed that the four largest incumbent LECs leased only 20,000 to 60,000 combined UNE Dark Fiber Transport miles to competitive LECs, compared to nearly 12 million dark fiber transport miles that were made available via commercial leasing.²⁴² Incumbent LECs also dispute that UNE Dark Fiber Transport is primarily used by competitive LECs to reach end users in rural areas.²⁴³

²³⁶ We would consider fixed wireless to the extent we do in our other residential competitive tests, as discussed in Section III.A.1.b above.

²³⁷ USTelecom Petition at 27; *see also* USTelecom Reply at 14-15 (discussing dark fiber transport).

²³⁸ *See Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141, Order, 34 FCC Rcd 5075 (WCB June 18, 2019) (granting withdrawal request).

²³⁹ Letter from Jonathan Banks, Sr. V.P., Law & Policy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed Sept. 4, 2018) (noting that fewer than 6,000 UNE dark fiber circuits are sold by the four largest incumbent LECs).

²⁴⁰ Verizon Comments at 16.

²⁴¹ Letter from Patrick R. Halley, Sr. V.P., Advocacy and Regulatory Affairs, USTelecom, et al., to Marlene H. Dortch, Secretary, FCC, WC Docket. No. 18-141, at 4 (filed May 24, 2019). For those competitive LECs that rely on UNE Dark Fiber Transport to provision service to a substantial number of end users, CenturyLink reasoned that such demand would justify deployment of its own facilities. *See CenturyLink Reply at 25.*

²⁴² USTelecom Reply at 15.

²⁴³ AT&T Reply at 30.

79. Competitive LECs, on the other hand, argued that access to UNE Dark Fiber Transport was essential to the provision of new service, often in rural markets.²⁴⁴ For example, one competitive LEC described its network buildout strategy, which first requires collocation in the incumbent LEC's central office followed by connection to its existing facilities-based network using UNE Dark Fiber Transport.²⁴⁵ This competitive LEC emphasized that its use of UNE Dark Fiber Transport required investment in collocation and optronics to operationalize the leased UNE Dark Fiber Transport.²⁴⁶ Other commenters contended that competitive LECs use UNE Dark Fiber Transport as "the critical middle-mile fiber to connect to their own last-mile facilities."²⁴⁷ We seek comment generally on all of these assertions and the potential application of section 10 forbearance criteria to UNE Dark Fiber Transport.

3. Other UNEs

a. Network Interface Devices

80. The network interface device, or NID, which is always located at the customer's premises,²⁴⁸ is defined as any means of interconnecting the incumbent LEC's distribution plant to wiring at a customer premises location.²⁴⁹ Apart from its obligation to provide the NID functionality as part of an unbundled loop or subloop,²⁵⁰ an incumbent LEC must also offer nondiscriminatory access to the NID on an unbundled, stand-alone basis to requesting carriers for the purpose of connecting the competitor's own loop facilities.²⁵¹ An incumbent LEC must permit a requesting carrier to connect its own loop facilities to on-premises wiring through the incumbent LEC's NID.²⁵² The need for unbundled access to an incumbent LEC's NID arose to address scenarios, typically in multiunit locations, where access to the inside wire on the premises was controlled by a premises owner that did not want additional NIDs installed on their premises,²⁵³ or a customer had no need for a duplicate NID.

81. Based on the record developed in the USTelecom forbearance proceeding, we propose to forbear from the UNE NID obligation because it appears that stand-alone NIDs are not necessary for competitive LECs to access potential customers. Competitive and incumbent LECs have described substantially changed circumstances in the last two-plus decades such that this network element may no longer serve any meaningful purpose. Competitive carriers are on record stating that "[a]s a practical matter, [they] do not purchase network interface device elements separate from unbundled loops."²⁵⁴

²⁴⁴ See INCOMPAS Motion for Summary Denial, WC Docket No. 18-141, at 20 & n.81 (filed Aug. 6, 2018); INCOMPAS May 9, 2019 Comments at 20 ("Unbundled dark fiber plays a critical role in bringing competition to those customers served by Tier 3, the most remote, wire centers. . .").

²⁴⁵ Letter from Julie A. Veach, Counsel to Sonic Telecom, LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed Oct. 15, 2018).

²⁴⁶ *Id.* at 2; see also *Triennial Review Remand Order*, 20 FCC Rcd at 2607, para. 133.

²⁴⁷ INCOMPAS May 9, 2019 Comments at 20.

²⁴⁸ *Triennial Review Order*, 18 FCC Rcd at 17186, para. 343.

²⁴⁹ 47 CFR § 51.319(c).

²⁵⁰ *Id.*; see also *id.* §§ 51.319(a), (b)(1)(i), (b)(2)(i). Forbearance from this obligation would necessarily coincide with and follow our forbearance proposals related to loops and subloops and previous forbearance grants related to loops. See *supra* Section III.A.1; see also generally *UNE Analog Loop and Resale Order*.

²⁵¹ 47 CFR § 51.319(c).

²⁵² *Id.*; see also INCOMPAS et al. Opposition at 23-24. The NID is a terminal endpoint for loops. INCOMPAS Motion at 20 & n.80 (noting that "[g]enerally, the NID is included in the unbundled loop charge as part of the loop, and is not charged or ordered separately").

²⁵³ See *Triennial Review Order*, 18 FCC Rcd at 17196-97, para. 356.

²⁵⁴ INCOMPAS et al. Opposition at 24.

AT&T is also on record stating it sells no UNE NIDs.²⁵⁵ We seek comment on our view that the lack of stand-alone UNE NIDs indicates that the obligation is not necessary to ensure just and reasonable rates and to protect consumers, thus justifying forbearance.

82. How often do competitive carriers use this UNE obligation to have access to stand-alone NIDs? How many stand-alone NIDs are currently purchased from incumbent LECs? Are there still cases where customer premises wire is not part of the incumbent LEC's network, i.e., not an inside wire subloop, and the NID is the sole means of accessing this customer premise's wire? If we eliminate UNE loop and subloop obligations, would competitive providers need to acquire access to NIDs on a stand-alone basis, and if so, are there competitive alternatives to this network element? In the absence of an unbundling obligation, would incumbent LECs still provide access to NIDs? As an alternative to forbearing from this requirement, should we instead find that competitive LECs are not impaired without access to NIDs? If so, on what basis could we make a finding of no impairment?

b. Operations Support Systems

83. Incumbent LECs must offer nondiscriminatory access to their operations support systems, or OSS, for qualifying services on an unbundled basis.²⁵⁶ OSS consists of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information.²⁵⁷ OSS is used for the provision of other UNEs, and it is also a separate stand-alone UNE that is used for interconnection and other purposes.²⁵⁸ The Commission required incumbent LECs to provide OSS on an unbundled basis in the *Triennial Review Order* because it found that "these functions are essential for carriers to serve mass market and enterprise customers"²⁵⁹ and competitive LECs providing these services are "impaired on a national basis without access to OSS."²⁶⁰

84. We propose to forbear from the standalone OSS unbundling obligation—i.e., when used for purposes other than managing other UNEs—because we believe its very limited use in today's marketplace is evidence that this standalone UNE is not necessary to ensure either just and reasonable rates or consumer protection and forbearance would be consistent with the public interest.²⁶¹ We seek comment on this proposal. CenturyLink asserts that "OSS are naturally coupled to the availability of the UNEs they support."²⁶² Does access to this UNE remain necessary to facilitate deployment of competitive carrier networks? How does this UNE obligation differ from other UNE obligations, and should it be treated differently than UNE loop and transport obligations, which may require more intrusive sharing of incumbent LEC networks?

85. If we were to eliminate the UNE OSS obligation, are there any alternative OSS providers on which competitive LECs could rely, to the extent they need to do so?²⁶³ We seek comment on the

²⁵⁵ AT&T July 23, 2018 *Ex Parte* Letter at 1.

²⁵⁶ 47 CFR § 51.319(f).

²⁵⁷ *Id.* The Commission previously found that the UNE OSS "requirement includes an ongoing obligation on the incumbent LECs to make modifications to existing OSS as necessary to offer competitive carriers nondiscriminatory access and to ensure that the incumbent LEC complies with all of its network element, resale and interconnection obligations in a nondiscriminatory manner." *Triennial Review Order*, 18 FCC Rcd at 17335, para. 562.

²⁵⁸ Cox Motion at 6 & n.21 (*citing Triennial Review Order*, 18 FCC Rcd at 17335, para. 562, 17336, para. 564); INCOMPAS Reply in Support of Cox Motion, WC Docket No. 18-141, at 4 (filed Sept. 5, 2018).

²⁵⁹ *Triennial Review Order*, 18 FCC Rcd at 17334, para. 561.

²⁶⁰ *Id.* at 17335, para. 562.

²⁶¹ 47 U.S.C. § 160(a).

²⁶² CenturyLink Reply at 26.

²⁶³ *Cf. USTA II*, 359 F.3d at 587 (upholding Commission determination "that CLECs are not impaired without unbundled access to ILEC databases . . . because of the abundance of alternative providers").

assertions by TPx and Socket that they rely on UNE OSS to serve their non-UNE based customers.²⁶⁴ Is there a more efficient way to provide nondiscriminatory access to OSS? Alternatively, regardless of whether the statutory elements for forbearance are met, are competitive LECs impaired without OSS, and should we make a finding of no impairment?

4. Other Considerations

86. For each network element or requirement discussed above, we seek comment on whether requesting carriers are no longer impaired without access to the element or requirement under section 251(d)(2), or whether the forbearance criteria are met under section 10. We also seek comment on whether additional considerations beyond impairment or forbearance would justify our proposals, or any alternatives, for each network element or requirement discussed above.

87. In particular, the D.C. Circuit has held that the Commission must “take into account not only the benefits but also the costs of unbundling (such as discouragement of investment in innovation),” which the Commission has done “with the costs of unbundling brought into the analysis under § 251(d)(2)’s ‘at a minimum’ language.”²⁶⁵ For example, when evaluating unbundling previously, the Commission has weighed the effects of unbundling on Congress’s exhortation in section 706 of the 1996 Act that it “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans” by removing barriers to infrastructure investment.²⁶⁶ The Commission more recently also has cited other potential costs or harms of unbundling when addressing requests for relief from a number of legacy wireline mandates imposed on incumbent LECs stemming from the 1996 Act. Such requirements can force incumbent LECs to maintain outdated TDM equipment even when they no longer desire to offer those services to their customers, undercutting the benefits of technology transitions.²⁶⁷ They can also distort the marketplace by imposing unnecessary costs on one class of competitors alone.²⁶⁸ The Commission has also reiterated Justice Breyer’s observation that “mandatory unbundling comes at a cost, including disincentives to research and development by both incumbent LECs, competitive LECs and the tangled management inherent in shared use of a common resource.”²⁶⁹ In addition, these requirements can create disincentives for competitors to invest in their own facilities-based networks and transition their customers to next-generation services.²⁷⁰ We seek comment on the full range of those and any other relevant considerations and how they should affect our analysis regarding each network element or requirement discussed above.

88. Additionally, to the extent that the Commission has cited a given network element or requirement discussed above as a continuing obligation that would remain when granting past regulatory forbearance, we seek comment on how that should affect our analysis here. Given that forbearance

²⁶⁴ Letter from William P. Hunt III, Sr. V.P., Gen. Counsel and Secretary, U.S. TelePacific Corp., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed Nov. 13, 2018); Letter from Tamar E. Finn and Patricia Cave, Morgan, Lewis & Bockius LLP, Counsel for U.S. TelePacific Corp. et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 2 (filed Dec. 11, 2018).

²⁶⁵ *USTA II*, 359 F.3d at 572.

²⁶⁶ *Triennial Review Order*, 18 FCC Rcd at 17087, para. 173.

²⁶⁷ See, e.g., *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6510, para. 14, 6518-19, paras. 29-30.

²⁶⁸ See, e.g., *id.* at 6511, para. 15, 6518-19, paras. 29-30; *UNE Transport Forbearance Order*, 34 FCC Rcd at 5791-92, para. 54, 5796, para. 63.

²⁶⁹ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5791-92, para. 54 (quoting *USTA I*, 290 F.3d at 429 (citing *Iowa Utils. Bd.*, 525 U.S. at 428 (Breyer, J., concurring in part and dissenting in part)) (internal quotation marks and alterations omitted)).

²⁷⁰ See, e.g., *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6511, para. 16, 6518-19, paras. 29-30; *UNE Transport Forbearance Order*, 34 FCC Rcd at 5796, para. 63.

petitions are addressed based on the record compiled in the relevant proceeding, we do not believe such past citations should alter our actions in this proceeding or require the continued imposition of particular requirements if the record here persuades us that relief is warranted. We seek comment on that view.

89. Conversely, we seek comment on how other aspects of our regulatory framework—such as the continued applicability of rate regulations for DS1s and DS3s in certain areas, the imposition of a reasonable comparability benchmark for voice services in areas supported by our high-cost Universal Service Fund, or the continuing obligation of all local exchange carriers “not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of its telecommunications services”²⁷¹—should weigh in our analysis.

90. In addition to a number of specific proposals discussed above, we also seek comment on alternative approaches for relief with respect to each network element or requirement discussed above, either through the impairment standard under section 251(d)(2) or forbearance under section 10. For example, is relief justified in a broader or narrower range of geographic areas? Are there different competitive conditions than those identified above that should inform our grant of relief, and if so, how should that relief be tailored to those competitive conditions? In addition, are there considerations flowing from the network deployment by incumbent LECs and/or competitive LECs in a given area—such as the extent of the providers’ progress in implementing technology transitions—that should inform the scope of, and triggers for, relief? Further, how should administrability concerns inform the scope and mechanics of any relief we grant? We also seek comment on whether special considerations apply to small businesses with respect to each of our proposals above.

B. Avoided-Cost Resale

91. Except where we have forborne from such obligations, incumbent LECs must make available at regulated wholesale rates telecommunications services that they make available to their own non-carrier retail customers.²⁷² In the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, we granted price cap incumbent LECs relief from the Avoided-Cost Resale requirement.²⁷³

92. We propose to extend to non-price cap incumbent LEC service areas the forbearance previously granted with respect to Avoided-Cost Resale in price cap incumbent LEC service areas. We seek comment on this proposal. We base our proposal on the same reasons we stated for granting such forbearance to price cap LECs—i.e., “the breadth of the voice service marketplace and the number of wholesale input alternatives to competitive LECs seeking to continue serving customers currently served by Avoided-Cost Resale.”²⁷⁴

93. Are there reasons why non-price-cap areas may differ from price cap areas with respect to the Avoided-Cost Resale requirement that is only used to provision voice-grade service? Commenters should provide specific detail as to why continued Avoided-Cost Resale requirements are or are not necessary (1) to ensure that charges, practices, classifications, or regulations are just and reasonable and are not unjustly or unreasonably discriminatory; (2) to ensure the protection of consumers; and (3) to serve the public interest.²⁷⁵ We also seek comment on the respective costs and benefits of this proposal versus retaining the status quo, as well as whether special considerations apply to small businesses.

²⁷¹ 47 U.S.C. § 251(b)(1).

²⁷² *Id.* § 251(c)(4).

²⁷³ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6523, para. 38.

²⁷⁴ *Id.*

²⁷⁵ 47 U.S.C. § 160(a).

C. Cost-Benefit Analysis

94. For the purpose of conducting a cost-benefit analysis of the various proposals and alternatives for which we seek comment in this Notice, as to each network element or requirement addressed herein, we seek comment on how many UNEs or Avoided-Cost resold services are currently being purchased, and at what prices. In the absence of unbundling and resale obligations, we seek comment on what proportion of these arrangements would likely shift to alternative commercial services offered by incumbent LECs or other competitors, or would be self-provisioned, and at what prices or costs. If commenters expect that prices for commercial alternatives for UNEs or resold services will be higher or lower than the current rates, we seek comment on why that would be so. If competitive LECs were to self-provision UNE replacements, how should we estimate their market prices?

95. What are the expected impacts to investment of each network element or requirement discussed above? If incumbent LECs or competitive LECs increase their investment in fiber or next-generation services as result of any relief, how should we account for such increased investment in any cost-benefit analysis? To the extent that the elimination of certain UNEs and resold services would have economic effects on end users, we seek comment as to the magnitude of these effects and how we should quantify them. For example, how can we quantify the benefits of migrating users to next-generation services or higher speed networks? Should we confine our analysis to consumers that currently rely on UNEs or resold services (presumably indirectly) or take into account the network effects that migrations to new networks could have on all consumers?

96. We also seek comment on the benefits of lower compliance costs for incumbent LECs and other parties, and any other benefits and costs of our proposed actions. More generally, for each network element or requirement discussed above, we seek comment on the respective costs and benefits of particular alternative rules or approaches as compared to retaining the current unbundling requirement.

D. Transition Plan

97. We propose, for all UNE and Avoided-Cost Resale relief that we provide, a three-year transition period for existing customers. We seek comment on whether we should include a six-month transition period for new orders, and if so, for what elements of relief. We seek comment on this proposal.

98. Our proposal is consistent with the *UNE Transport Forbearance Order* and the *UNE Analog Loop and Avoided-Cost Resale Order*, both of which provide three-year transition periods. In those orders, we reasoned that three years was sufficient “to fully ensure that current *and* potential competition plays its expected role” to ensure just and reasonable rates,²⁷⁶ and for competitive LECs “to replace their embedded base of legacy TDM customer premises equipment and other increasingly obsolete TDM-based peripheral devices with new IP-capable equipment.”²⁷⁷ Similarly, the *BDS Order* provided a uniform transition period of three years to allow existing customers to facilitate their transition to alternative facilities or arrangements.²⁷⁸ Here, consistent with those orders, we also propose a three-year transition for any eliminated UNE and Avoided-Cost Resale obligations, whether we grant such relief through a finding of non-impairment or through forbearance. We believe that this transition period supplies the necessary incentives for both incumbent and competitive LECs alike to deploy their own next-generation networks as expeditiously as possible, while ensuring that end users do not experience undue service disruption.

99. What conditions, if any, should apply to a transition period? Are there special circumstances that require longer or shorter transition periods for any particular UNEs? Should we

²⁷⁶ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61

²⁷⁷ *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6516, para. 23.

²⁷⁸ *BDS Order*, 32 FCC Rcd at 3533-34, paras. 166-70.

provide different transition periods for UNEs that we grant relief for based on a non-impairment finding vs. those based on forbearance?²⁷⁹ Should we provide a longer grandfathering period for Puerto Rico, for reasons similar to the unique Puerto Rico transition periods adopted in our recent forbearance orders?²⁸⁰

100. We recognize that the transition mechanism is simply a default process and carriers remain free to negotiate alternative arrangements superseding this transition period.²⁸¹ Any transition mechanism would not replace or supersede any commercial arrangements carriers have reached for the continued provision of facilities or services.²⁸²

101. Alternatively, we seek comment on a transition period that is shorter than three years for existing customers. In the *BDS Order*, the Commission found that the presence of a nearby potential BDS competitor would be expected to provide reasonably competitive outcomes for DS1 and DS3 services over three to five years.²⁸³ In the *UNE Transport Forbearance Order*, we concluded that “connecting nearby fiber . . . is unlikely to take a full three years for any individual alternative transport link,” but also noted that two years had elapsed since the *BDS Order* and a three-year transition would coincide with the outer bound of the Commission’s three to five year expectation in the *BDS Order*;²⁸⁴ in the *UNE Analog Loop and Avoided-Cost Resale Order*, we noted that a three-year period was consistent with prior Commission action and “should provide more than enough time for competitive LECs and their customers to transition.”²⁸⁵ Should we set a transition deadline of August 2, 2022, which would align the transition period with those of the *UNE Transport Forbearance Order* and the *UNE Analog Loop and Avoided-Cost Resale Order*?²⁸⁶ If so, should we tie this shorter transition period to only some relief or all relief granted? What are the administrative benefits of syncing the transitions? Are such benefits outweighed by what would be a shorter transition for those UNE and Avoided-Cost Resale obligations that we seek comment on today?

102. We note that in the *Triennial Review Remand Order*, after finding non-impairment, the Commission provided a transition period of twelve months for high-capacity loops and DS1 and DS3 transport for existing customers and eighteen months for UNE Dark Fiber Transport for existing customers.²⁸⁷ What, if any, weight should we place on this prior transition timeframe with respect to current UNE obligations that are eliminated through a finding of non-impairment? Commenters should provide any other input or considerations that should factor into our transition timeframe determinations.

²⁷⁹ See, e.g., *Triennial Review Remand Order*, 20 FCC Rcd at 2612-15, paras. 141-44, 2639-41, paras. 195-98 (providing 12-month transition for high-capacity loops and 18-month transition for dark fiber transport after non-impairment finding).

²⁸⁰ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5800-01, paras. 73-74; see also *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6521-22, paras. 36-37.

²⁸¹ *Triennial Review Remand Order*, 20 FCC Rcd 2613-14, para. 145, 2640-41, para. 198; see also *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61 n.201; *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6516, para. 24.

²⁸² *Triennial Review Remand Order*, 20 FCC Rcd 2613-14, para. 145, 2640-41, para. 198; see also *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61 n.201; *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6516, para. 24.

²⁸³ *BDS Order*, 32 FCC Rcd at 3467, para. 13.

²⁸⁴ See *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61 & n.203 (“Notably, the three-year transition will expire almost five years from the effective date of the *BDS Order*.”).

²⁸⁵ *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6514-16, paras. 23-24.

²⁸⁶ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5804, para. 88 (transition ending July 12, 2022); *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6533, para. 67 (transition ending August 2, 2022).

²⁸⁷ *Triennial Review Remand Order*, 20 FCC Rcd at 2612-14, paras. 142-45 (transport), 2639-41, paras. 195-98 (loops).

IV. PROCEDURAL MATTERS

103. *Paperwork Reduction Act of 1995 Analysis.* This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

104. *Initial Regulatory Flexibility Analysis.* An initial regulatory flexibility analysis (IRFA) is contained in Appendix B. Comments to the IRFA must be identified as responses to the IRFA and filed by the deadlines for comments on the Notice of Proposed Rulemaking. The Commission will send a copy of the Notice of Proposed Rulemaking, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

105. *Filing Instructions.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.
 - Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
 - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
 - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
 - U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington, DC 20554.
- *People with Disabilities:* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

106. *Ex Parte Information.* This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and summarize all data presented and arguments made during the presentation. If

the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with section 1.1206(b) of the Commission's rules. In proceedings governed by section 1.49(f) of the Commission's rules or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

107. *Contact Person.* For further information about this proceeding, please contact Michele Levy Berlove, FCC Wireline Competition Bureau, Competition Policy Division, Room 5-C313, 445 12th Street, S.W., Washington, D.C. 20554, at (202) 418-1477, Michele.Berlove@fcc.gov.

V. ORDERING CLAUSES

108. Accordingly, IT IS ORDERED that, pursuant to sections 1-4, 10, 201, 202, and 251 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, and 251, this Notice of Proposed Rulemaking IS ADOPTED.

109. IT IS FURTHER ORDERED that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

DRAFT PROPOSED RULES FOR PUBLIC COMMENT

The Federal Communications Commission amends 47 CFR part 51 as follows:

PART 51 – INTERCONNECTION

1. The authority citation for part 51 continues to read as follows:

Authority: 47 U.S.C. §§ 151-55, 201-05, 207-09, 218, 225-27, 251-52, 271, 332 unless otherwise noted.

2. Section 51.319 is amended by revising paragraph (a)(1), (a)(4)(i), (a)(5)(i), (b), and (d), removing paragraph (a)(3)(iii)(C), removing paragraph (c), and redesignating paragraph (d) through (f) as paragraph (c) through paragraph (e), to read as follows:

§ 51.319 Specific unbundling requirements.

(a) * * *

(1) *Copper loops.* An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to the copper loop in census blocks defined as rural by the Census Bureau on an unbundled basis. A copper loop is a stand-alone local loop comprised entirely of copper wire or cable. Copper loops include two-wire and four-wire analog voice-grade copper loops, digital copper loops (*e.g.*, DSOs and integrated services digital network lines) as well as two-wire and four-wire copper loops conditioned to transmit the digital signals needed to provide digital subscriber line services, regardless of whether the copper loops are in service or held as spares. The copper loop includes attached electronics using time division multiplexing technology, but does not include packet switching capabilities as defined in paragraph (a)(2)(i) of this section. The availability of DS1 and DS3 copper loops is subject to the requirements of paragraphs (a)(4) and (5) of this section.

* * * * *

(3) * * *

(iii) * * *

* * * * *

~~(C) [Deleted]—An incumbent LEC that retires the copper loop pursuant to paragraph (a)(3)(iv) of this section shall provide nondiscriminatory access to a 64 kilobits per second transmission path capable of voice grade service over the fiber to the home loop or fiber to the curb loop on an unbundled basis.~~

* * * * *

(4) *DS1 loops.* (i) Subject to the cap described in paragraph (a)(4)(ii) of this section, an incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to a DS1 loop on an unbundled basis to any building not served by a wire center with at least 60,000 business lines and at least four fiber-based collocators. Once a wire center exceeds both the business line and fiber-based collocator thresholds, no future DS1 loop unbundling will be

required in that wire center. In addition, a DS1 loop only is available to a building located in one or more of the following: (A) any county or portion of a county served by a price cap incumbent LEC that is not included on the list of counties that have been deemed competitive pursuant to the competitive market test established under 49 CFR 69.803; (B) any study area served by a rate-of-return incumbent LEC provided that study area is not included on the list of competitive study areas pursuant to the competitive market test established under 47 CFR 61.50; or (C) any census block defined as rural by the Census Bureau if being requested solely to serve residential customers. A DS1 loop is a digital local loop having a total digital signal speed of 1.544 megabytes per second. DS1 loops include, but are not limited to, two-wire and four-wire copper loops capable of providing high-bit rate digital subscriber line services, including T1 services.

* * * * *

(5) *DS3 loops.* (i) Subject to the cap described in paragraph (a)(5)(ii) of this section, an incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to a DS3 loop on an unbundled basis to any building not served by a wire center with at least 38,000 business lines and at least four fiber-based collocators. Once a wire center exceeds the business line and fiber-based collocator thresholds, no future DS3 loop unbundling will be required in that wire center. In addition, a DS3 loop only is available to a building located in one of the following: (A) any county served by a price cap incumbent LEC that is not included on the list of counties that have been deemed competitive pursuant to the competitive market test established under 49 CFR 69.803; or (B) any study area served by a rate-of-return incumbent LEC provided that study area is not included on the list of competitive study areas pursuant to the competitive market test established under 47 CFR 61.50. A DS3 loop is a digital local loop having a total digital signal speed of 44.736 megabytes per second.

* * * * *

(b) *Subloops.* An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to subloops on an unbundled basis in accordance with section 251(c)(3) of the Act and this part and as set forth in paragraph (b) of this section, provided that the underlying loop is available as set forth in paragraph (a) of this section.

* * * * *

(d) * * *

* * * * *

(2) *Availability.*

* * * * *

(iv) *Dark fiber transport.* Dark fiber transport consists of unactivated optical interoffice transmission facilities. Incumbent LECs shall unbundle dark fiber transport between any pair of incumbent LEC wire centers except where, through application of tier classifications described in paragraph (d)(3) of this section, where both wire centers defining the route are either Tier 1, Tier 2, or a Tier 3 wire center identified on the list of wire centers that has been found to be within a half mile of alternative fiber pursuant to the Report and Order on Remand and Memorandum Opinion and Order in WC Docket No. 18-14, FCC 19-66 (released July 12, 2019). An incumbent LEC must unbundle dark fiber transport if a wire center on either end of a requested route is a Tier 3 wire center that is not on the published list of wire centers.

* * * * *

APPENDIX B

INITIAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Notice of Proposed Rulemaking (Notice). The Commission requests written public comments on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided on the first page of the Notice. The Commission will send a copy of the Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the Notice and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. In the Notice, we propose to modernize our unbundling and related rules for local loops and dark fiber transport, as well as other types of network elements. Specifically, the Commission proposes to eliminate UNE DS1 and DS3 loop obligations in counties and study areas deemed competitive in the *BDS Order* and the *RoR BDS Order*, UNE loops in urban census blocks, unbundled dark fiber transport to wire centers that are within a half mile of alternative fiber, UNE subloops in the particular instances or geographic areas where we propose to find no impairment for UNE DS0 loops for the underlying loop to the customer's premises, the UNE Analog Loop obligation where it still applies, the unbundling requirement for the narrowband frequencies of hybrid loops, the stand-alone UNE network interface device (NID) obligation, the operations support systems (OSS) unbundling obligation, except in the case where it is used for managing other UNEs, and avoided-cost resale obligations in non-price cap areas.

B. Legal Basis

3. The legal basis for any action that may be taken pursuant to the Notice is contained in sections 1-4, 10, and 201, 202, and 251 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, and 251.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

4. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules and by the rule revisions on which the Notice seeks comment, if adopted.⁴ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."⁵ In addition, the term "small business" has the same meaning as the term "small-business concern" under the Small Business Act.⁶ A "small-business concern" is one which: (1) is independently

¹ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See 5 U.S.C. § 603(a).

³ See 5 U.S.C. § 603(a).

⁴ See 5 U.S.C. § 603(b)(3).

⁵ See 5 U.S.C. § 601(6).

⁶ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity

(continued....)

owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁷

1. Total Small Entities

5. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.⁸ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA's Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.⁹ These types of small businesses represent 99.9% of all businesses in the United States which translates to 30.2 million businesses.¹⁰

6. Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."¹¹ Nationwide, as of August 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS).¹²

7. Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand."¹³ U.S. Census Bureau data from the 2012 Census of Governments¹⁴ indicates that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁵ Of this number there were

(Continued from previous page) _____

for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

⁷ See 15 U.S.C. § 632.

⁸ See 5 U.S.C. § 601(3)-(6).

⁹ See SBA, Office of Advocacy, "Frequently Asked Questions, Question 1 – What is a small business?" <https://www.sba.gov/sites/default/files/advocacy/Frequently-Asked-Questions-Small-Business-2018.pdf> (Aug. 2018).

¹⁰ See SBA, Office of Advocacy, "Frequently Asked Questions, Question 2- How many small businesses are there in the U.S.?" <https://www.sba.gov/sites/default/files/advocacy/Frequently-Asked-Questions-Small-Business-2018.pdf> (Aug. 2018).

¹¹ 5 U.S.C. § 601(4).

¹² Data from the Urban Institute, National Center for Charitable Statistics (NCCS) reporting on nonprofit organizations registered with the IRS was used to estimate the number of small organizations. Reports generated using the NCCS online database indicated that as of August 2016 there were 356,494 registered nonprofits with total revenues of less than \$100,000. Of this number 326,897 entities filed tax returns with 65,113 registered nonprofits reporting total revenues of \$50,000 or less on the IRS Form 990-N for Small Exempt Organizations and 261,784 nonprofits reporting total revenues of \$100,000 or less on some other version of the IRS Form 990 within 24 months of the August 2016 data release date. See <http://nccs.urban.org/sites/all/nccs-archive/html/tablewiz/tw.php> where the report showing this data can be generated by selecting the following data fields: Report: "The Number and Finances of All Registered 501(c) Nonprofits"; Show: "Registered Nonprofits"; By: "Total Revenue Level (years 1995, Aug to 2016, Aug)"; and For: "2016, Aug" then selecting "Show Results".

¹³ 5 U.S.C. § 601(5).

¹⁴ See 13 U.S.C. § 161. The Census of Government is conducted every five (5) years compiling data for years ending with "2" and "7". See also Program Description Census of Government <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadate.xhtml?lang=en&type=program&id=program.en.CO.G#>.

¹⁵ U.S. Census Bureau, Statistical Abstract of the United States: 2012 at 267, tbl. 428 (2011), <http://www2.census.gov/library/publications/2011/compendia/statab/131ed/2012-statab.pdf> (citing data from 2007).

37,132 general purpose governments (county¹⁶, municipal and town or township¹⁷) with populations of less than 50,000 and 12,184 special purpose governments (independent school districts¹⁸ and special districts¹⁹) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local government category shows that the majority of these governments have populations of less than 50,000.²⁰ Based on these data we estimate that at least 49,316 local government jurisdictions fall in the category of “small governmental jurisdictions.”²¹

2. Broadband Internet Access Service Providers

8. *Internet Service Providers (Broadband)*. Broadband Internet service providers include wired (e.g., cable, DSL) and VoIP service providers using their own operated wired telecommunications infrastructure fall in the category of Wired Telecommunication Carriers.²² Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.²³ The SBA size standard for this category classifies a business as small if it has 1,500 or fewer employees.²⁴ U.S. Census data for 2012 show that there were

¹⁶ See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>. There were 2,114 county governments with populations less than 50,000.

¹⁷ See U.S. Census Bureau, 2012 Census of Governments, Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States – States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>. There were 18,811 municipal and 16,207 town and township governments with populations less than 50,000.

¹⁸ See U.S. Census Bureau, 2012 Census of Governments, Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. There were 12,184 independent school districts with enrollment populations less than 50,000.

¹⁹ See U.S. Census Bureau, 2012 Census of Governments, Special District Governments by Function and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG09.US01>. [The U.S. Census Bureau data did not provide a population breakout for special district governments.](#)

²⁰ See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States - <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>; Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States–States - <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>; and Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. [While U.S. Census Bureau data did not provide a population breakout for special district governments, if the population of less than 50,000 for this category of local government is consistent with the other types of local governments the majority of the 38, 266 special district governments have populations of less than 50,000.](#)

²¹ *Id.*

²² See, 13 CFR § 121.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition show the NAICs code as 517311. See, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>

²³ *Id.*

²⁴ *Id.*

3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.²⁵ Consequently, under this size standard, the majority of firms in this industry can be considered small.

3. Wireline Providers

9. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”²⁶ The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.²⁷ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.²⁸ Thus, under this size standard, the majority of firms in this industry can be considered small.

10. *Incumbent Local Exchange Carriers (Incumbent LECs).* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LEC services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers as defined above. Under that size standard, such a business is small if it has 1,500 or fewer employees.²⁹ According to Commission data, 3,117 firms operated in that year. Of this total, 3,083 operated with fewer than 1,000 employees.³⁰ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by the rules and policies adopted. A total of 1,307 firms reported that they were incumbent local exchange service providers.³¹ Of this total, an estimated 1,006 have 1,500 or fewer employees.³²

11. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate NAICS Code category is Wired Telecommunications Carriers, as defined above. Under that

²⁵ See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

²⁶ U.S. Census Bureau, *NAICS Search*, <https://www.census.gov/eos/www/naics/index.html> (last visited June 21, 2017)

²⁷ 13 CFR § 121.201 (NAICS Code 517110).

²⁸ See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

²⁹ 13 CFR § 121.201 (NAICS Code 517110).

³⁰ See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

³¹ See Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

³² See Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

size standard, such a business is small if it has 1,500 or fewer employees.³³ U.S. Census data for 2012 indicate that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees.³⁴ Based on this data, the Commission concludes that the majority of Competitive LECS, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers, are small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.³⁵ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees.³⁶ In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.³⁷ Also, 72 carriers have reported that they are Other Local Service Providers.³⁸ Of this total, 70 have 1,500 or fewer employees.³⁹ Consequently, based on internally researched FCC data, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities.

12. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.”⁴⁰ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.⁴¹ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

13. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a definition for Interexchange Carriers. The closest NAICS Code category is Wired Telecommunications Carriers as defined above. The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁴² U.S. Census data for 2012 indicates that 3,117 firms operated during

³³ 13 CFR § 121.201 (NAICS Code 517110).

³⁴ See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016) http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

³⁵ See Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

³⁶ Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

³⁷ Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

³⁸ Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

³⁹ Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁴⁰ 5 U.S.C. § 601(3).

⁴¹ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (filed May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

⁴² 13 CFR § 121.201 (NAICS Code 517110).

that year. Of that number, 3,083 operated with fewer than 1,000 employees.⁴³ According to internally developed Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.⁴⁴ Of this total, an estimated 317 have 1,500 or fewer employees.⁴⁵ Consequently, the Commission estimates that the majority of IXC's are small entities that may be affected by our proposed rules.

14. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry.⁴⁶ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁷ Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.⁴⁸ Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities.

15. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a definition for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable NAICS Code category is for Wired Telecommunications Carriers as defined above. Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.⁴⁹ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.⁵⁰ Thus, under this category and the associated small business size standard, the majority of Other Toll Carriers can be considered small. According to internally developed Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.⁵¹ Of these, an estimated 279 have 1,500 or fewer employees.⁵² Consequently, the Commission estimates that most

⁴³ See U.S. Census Bureau, American Fact Finder (Jan. 08, 2016), http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

⁴⁴ See Fed. Commc'n's Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁴⁵ Fed. Commc'n's Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁴⁶ U.S. Census Bureau, *2012 NAICS Definition*, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012> (last visited Mar. 26, 2018).

⁴⁷ 13 CFR § 121.201 (NAICS code 517911).

⁴⁸ See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table (last visited Mar. 26, 2018).

⁴⁹ 13 CFR § 121.201 (NAICS code 517110).

⁵⁰ See U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

⁵¹ Fed. Commc'n's Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁵² Fed. Commc'n's Comm'n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

Other Toll Carriers are small entities that may be affected by rules adopted pursuant to the Second Further Notice.

16. *Operator Service Providers (OSPs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵³ According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees.⁵⁴ Consequently, the Commission estimates that the majority of OSPs are small entities.

4. Wireless Providers – Fixed and Mobile

17. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.⁵⁵ The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁵⁶ For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year.⁵⁷ Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.⁵⁸ Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

18. According to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service, and Specialized Mobile Radio Telephony services.⁵⁹ Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.⁶⁰ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

19. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for

⁵³ 13 CFR § 121.201, NAICS code 517311.

⁵⁴ *Trends in Telephone Service*, tbl. 5.3.

⁵⁵ See U.S. Census Bureau, *American Fact Finder—About the Data*, <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en/ECN.NAICS2012.517210> (NAICS Code 517210).

⁵⁶ 13 CFR § 121.201 (NAICS code 517210).

⁵⁷ U.S. Census Bureau, *American Fact Finder* (Jan 08, 2016), https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table (NAICS 51720, “Subject Series - Estab & Firm Size: Employment Size of Establishments for the U.S.: 2012”).

⁵⁸ U.S. Census Bureau, *American Fact Finder* (Jan 08, 2016), https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table (NAICS 51720, “Subject Series - Estab & Firm Size: Employment Size of Establishments for the U.S.: 2012”). Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

⁵⁹ See Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁶⁰ See Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁶¹ The SBA has approved these definitions.⁶²

20. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).⁶³ Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁶⁴ According to Commission data, 413 carriers reported that they were engaged in wireless telephony.⁶⁵ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.⁶⁶ Therefore, a little less than one third of these entities can be considered small.

21. *All Other Telecommunications.* “All Other Telecommunications” is defined as follows: This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.⁶⁷ The SBA has developed a small business size standard for “All Other Telecommunications,” which consists of all such firms with gross annual receipts of \$32.5 million or less.⁶⁸ For this category, census data for 2012 show that there were 1,442 firms that operated for the entire year. Of these firms, a total of 1,400 had gross annual receipts of less than \$25 million.⁶⁹ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

22. The Notice propose changes to, and seeks comment on, the Commission’s unbundling and related rules for local loops and dark fiber transport, as well as other types of network elements. The objective of the proposed modifications is to encourage the deployment of next-generation networks and unburden incumbent LECs where there is substantial evidence of facilities-based competition and market

⁶¹ *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

⁶² See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (filed Dec. 2, 1998) (*Alvarez Letter 1998*).

⁶³ 13 CFR § 121.201 (NAICS code 517210).

⁶⁴ 13 CFR § 121.201 (NAICS code 517210).

⁶⁵ Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁶⁶ Fed. Commc’ns Comm’n, *Trends in Telephone Service*, 5-5, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁶⁷ U.S. Census Bureau, *NAICS Search*, <https://www.census.gov/eos/www/naics/index.html> (last visited June 21, 2017) (enter 2012 NAICS code 517919).

⁶⁸ 13 CFR § 121.201 (NAICS Code 517919).

⁶⁹ U.S. Census Bureau, *American Fact Finder* (Jan. 08, 2016), http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ4&prodType=table (2012 NAICS Code 517919, “Estab & Firm Size: Receipts Size of Firms for the U.S.”).

entry. Beyond the benefits that providers will enjoy from a decreased regulatory burden on their day-to-day operations, these changes would not affect the reporting, recordkeeping, and other compliance requirements of carriers, some of which are small entities.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

23. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rules for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.⁷⁰

24. The rule changes proposed by the Notice would reduce the economic impact and market distortions of the Commission's unbundling rules on incumbent LECs and would increase the incentives for incumbent LECs and new entrants to invest in new facilities and deploy new technologies. We seek comment as to any additional economic burden incurred by small entities that may result from the rule changes proposed in the Notice.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

25. None.

⁷⁰ 5 U.S.C. § 603(c)(1)-(c)(4).