

FACT SHEET*
Modernizing Unbundling and Resale Requirements
in an Era of Next-Generation Networks and Services
Report and Order – WC Docket No. 19-308

Background:

The Telecommunications Act of 1996 (the 1996 Act) changed the focus of telecommunications law and policy from the regulation of monopolies to the encouragement of robust intermodal competition. In the nearly quarter-century since the passage of the 1996 Act, the telecommunications marketplace has transformed to a marketplace characterized by competition and technological innovation. Former monopolist incumbent local exchange carriers (LECs) are now one of many intermodal competitors, facing fierce competition from competitive LECs, cable providers, and wireless providers, among others.

The Commission has repeatedly adjusted the incumbent LEC-specific obligations in the 1996 Act, including unbundling and resale requirements, to account for changed circumstances. With this *Report and Order*, the Commission would continue to modernize these requirements and would end unbundling and resale requirements where they stifle technology transitions and broadband deployment. The *Report and Order* would preserve unbundling requirements where they are still necessary to realize the 1996 Act's goal of robust competition benefiting all Americans.

What the Report and Order Would Do:

- Eliminate unbundling requirements, subject to reasonable transition periods, for: enterprise DS1 and DS3 loops in areas with sufficient evidence of competition; broadband-capable DS0 loops and subloops in the most densely populated areas; voice-grade narrowband loops nationwide; multiunit premises subloops and network interface devices nationwide; and operations support systems nationwide except for the purposes of managing other unbundled network elements, number portability, and interconnection.
- Preserve the unbundling requirements for DS0 loops in less densely populated areas and DS1 and DS3 loops in areas without sufficient evidence of competition.
- Eliminate unbundling requirements for dark fiber transport provisioned from wire centers within a half-mile of competitive fiber networks, but provide an eight-year transition period for existing circuits so as to avoid stranding investment and last-mile deployment by competitive LECs that may harm consumers.
- Forbear from the Avoided-Cost Resale obligation where it continues to exist, subject to a three-year transition period.

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

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

REPORT AND ORDER*

Adopted: ☐

Released: ☐

By the Commission:

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* This document has been circulated for tentative consideration by the Commission at its October 2020 open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Chairman has determined that, in the interest of promoting the public’s ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC’s *ex parte* rules apply and presentations are subject to “permit-but-disclose” *ex parte* rules. *See, e.g.*, 47 C.F.R. §§ 1.1206, 1.1200(a). Participants in this proceeding 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(a), 1.1203.

I. INTRODUCTION

1. The Telecommunications Act of 1996 (the 1996 Act) changed the focus of telecommunications law and policy from the regulation of monopolies to the encouragement of robust intermodal competition. Few of its effects were as consequential as ending the local exchange monopolies held by incumbent local exchange carriers (LECs) and opening local markets to competition. To facilitate new entry into the local exchange market, the 1996 Act imposed special obligations on incumbent LECs, including requirements to offer these new competitive carriers unbundled network elements and retail telecommunications services for resale, both on a rate-regulated basis.

2. In the nearly quarter-century since the passage of the 1996 Act, the telecommunications marketplace has transformed from a marketplace dominated by monopolies to a marketplace characterized by competition and technological innovation. Former monopolist incumbent LECs are now one of many intermodal competitors, facing fierce competition from competitive LECs, cable providers, and wireless providers, among others. And that competition has itself shifted from siloed markets to the Internet, as increasingly local and long distance voice, data, video, and nearly all communications technologies are delivered via broadband connections. The Commission has repeatedly adjusted the incumbent LEC-specific obligations in the 1996 Act to account for changed circumstances.

3. Today, we continue on that path of modernizing our unbundling and resale regulations. We eliminate unbundling requirements, subject to a reasonable transition period, for enterprise-grade DS1 and DS3 loops where there is evidence of actual and potential competition, for broadband-capable DS0 loops in the most densely populated areas, and for voice-grade narrowband loops nationwide. But we preserve unbundling requirements for DS0 loops in less densely populated areas and DS1 and DS3 loops in areas without sufficient evidence of competition. We eliminate unbundled dark fiber transport provisioned from wire centers within a half-mile of competitive fiber networks, but provide an eight-year transition period for existing circuits so as to avoid stranding investment and last-mile deployment by competitive LECs that may harm consumers. In all, we end unbundling and resale requirements where they stifle technology transitions and broadband deployment, but preserve unbundling requirements where they are still necessary to realize the 1996 Act's goal of robust intermodal competition benefiting all Americans.

II. BACKGROUND

4. The 1996 Act¹ and implementing Commission regulations imposed a number of obligations on incumbent LECs to promote competitive entry into the telecommunications marketplace, including obligations to unbundle network elements to other carriers on a rate-regulated basis and to offer telecommunications services for resale on a rate-regulated basis.² In the 24 years since the passage of the 1996 Act, the Commission has continually reviewed and, when warranted, reduced incumbent LEC unbundling and resale obligations to encourage competition and development of advanced telecommunications capability within the changing communications marketplace. The Commission has consistently aimed to promote sustainable facilities-based competition, recognizing that permanent unbundling obligations can reduce incentives for both incumbent and competitive LECs to deploy next-generation networks.³

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

² 47 U.S.C. § 251(c)(3)-(4); *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Notice of Proposed Rulemaking, 11 FCC Rcd 14171, 14177, para. 10 (1996) (*First Local Competition NPRM*).

³ 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 (adopted 2004, released 2005) (*Triennial Review Remand Order*), *aff'd* *Covad Commc'ns Co. v. FCC*,

(continued....)

A. The 1996 Act's Market-Opening Provisions

5. Before the enactment of the 1996 Act, incumbent LECs controlled more than 99% of the local voice marketplace because of their “virtually ubiquitous” networks and subsequently low relative incremental costs.⁴ To open this monopolized market, Congress required, among other things, incumbent LECs to offer their competitors unbundled network elements and telecommunications services for resale on a discounted basis.⁵

6. *Unbundled Network Elements.* Section 251(c)(3) of the Communications Act of 1934, as amended⁶ (the Act) sets forth incumbent LECs’ unbundling obligations.⁷ Following Congress’s directive that the Commission determine which network elements should be subject to the unbundling rules,⁸ the Commission created a list of unbundled network elements (UNEs) that competitive LECs can lease from incumbent LECs in order to provide competitive local service. When identifying network elements subject to unbundling obligations, 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.”⁹ The identified UNEs were then to be made available at cost-based rates.¹⁰

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.¹¹ The Commission presumes that the reasonably efficient competitor would use “reasonably efficient technologies and take advantage of existing alternative

450 F.3d 528 (D.C. Cir. 2006); *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) (*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 (2019) (*UNE Analog Loop and Avoided-Cost Resale Forbearance Order*), appeal pending in *Comptel et al. v. FCC*, No. 19-1164 et al. (D.C. Cir.).

⁴ *First Local Competition NPRM*, 11 FCC Rcd at 14174-75, para. 6.

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

⁶ The 1996 Act amended the Communications Act of 1934, 47 U.S.C. § 151 *et seq.*

⁷ 47 U.S.C. § 251(c)(3).

⁸ *Id.* § 251(d)(2).

⁹ *Id.* § 251(d)(2). The statute also requires that the Commission determine whether access to proprietary network elements is “necessary.” *Id.* However, the Commission does not currently require incumbent LECs to make any proprietary network elements available on an unbundled basis.

¹⁰ *Id.* § 252(a). Parties may negotiate agreed-upon rates for UNEs, which the state must then approve. *Review of the Commission’s Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173, Notice of Proposed Rulemaking, 18 FCC Rcd 18945, 18952, para. 15 (2003). If the parties cannot come to an agreement, the rates are set by state arbitration and will be “based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element” and “may include a reasonable profit.” *Id.* (quoting 47 U.S.C. § 252(a)); see also *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 et al.*, First Report and Order, 11 FCC Rcd 15499, 15515, para. 29 (1996) (*First Local Competition Order*) (subsequent history omitted) (determining that “the prices that new entrants pay for . . . unbundled elements should be based on the local telephone companies Total Service Long Run Incremental Cost of a particular network element, which the Commission calls “Total Element Long-Run Incremental Cost” (TELRIC), plus a reasonable share of forward-looking joint and common costs. States will determine, among other things, the appropriate risk-adjusted cost of capital and depreciation rates.”).

¹¹ *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.”¹² The impairment 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.¹³ The Commission’s impairment determinations 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.”¹⁴ Furthermore, the courts and the Commission have interpreted section 251(d)(2)’s “at a minimum” language to allow the Commission to consider other factors “rationally related to the goals of the Act,” even where impairment exists.¹⁵ The Commission has identified broadband deployment, as called for by section 706 of the 1996 Act,¹⁶ as one such goal.¹⁷

8. When first implementing section 251(d)(2) and adopting the unbundling requirements, the Commission acknowledged that the availability of UNEs to competitive LECs “is a necessary precondition to the development of self-provisioned network facilities.”¹⁸ Consistent with its preference for facilities-based competition,¹⁹ the Commission expected UNEs to provide competitors a means to enter the local marketplace in order to obtain a sufficient subscriber base and revenue to support the development of their own competitive facilities.²⁰ The Commission also recognized that rural areas face higher deployment costs and longer deployment timeframes.²¹

9. *Avoided-Cost Resale.* In addition to unbundling obligations, section 251 includes 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.”²² Congress defined the methodology to determine wholesale rates 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.”²³ Avoided-Cost Resale services are

¹² *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*).

¹³ *Triennial Review Remand Order*, 20 FCC Rcd at 2547, para. 28.

¹⁴ *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.

¹⁵ *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.

¹⁶ 47 U.S.C. § 1302.

¹⁷ *Triennial Review Order*, 18 FCC Rcd at 16984, paras. 3-4.

¹⁸ *UNE Remand Order*, 15 FCC Rcd at 3700, para. 5.

¹⁹ *Triennial Review Order*, 18 FCC Rcd at 16984, para. 3; *Triennial Review Remand Order*, 20 FCC Rcd at 2537, para. 2.

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

²¹ *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.

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

²³ 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, Counsel for Granite Telecommunications, LLC et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-

(continued....)

predominately used by competitive LECs today to provision legacy TDM voice services to business and government customers.²⁴

10. *Forbearance.* Section 10 of the Act, as amended by the 1996 Act, requires the Commission to forbear from applying any requirement of the Act or one of its 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.”²⁵ Forbearance is warranted only if all three criteria are satisfied.²⁶ 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.”²⁷

11. 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.”²⁸ When the Commission undertakes a competitive analysis, “the statute imposes no particular mode of market analysis or level of geographic rigor.”²⁹ In addition, the Commission can consider the section 706 goal of fostering the deployment of advanced telecommunications capabilities in making forbearance decisions.³⁰ 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”³¹ Furthermore, the Commission may forbear without conducting a competitive analysis when changed circumstances have rendered a regulatory requirement unnecessary for other reasons.³²

12. *Unbundling and Resale Obligations Since 1996.* Pursuant to the provisions of the 1996 Act, the Commission has over the years reassessed and, when warranted, reduced its unbundling and resale requirements to account for changes in communications service markets where competition among incumbent and competitive LECs has flourished. Congress expressly authorized the Commission to

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.

²⁴ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6505, para. 5.

²⁵ 47 U.S.C. § 160(a).

²⁶ *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).

²⁷ 47 U.S.C. § 160(b).

²⁸ *Earthlink v. FCC*, 462 F.3d 1, 8 (D.C. Cir. 2006); *UNE Transport Forbearance Order*, 34 FCC Rcd at 5799, para. 70.

²⁹ *Earthlink v. FCC*, 462 F.3d at 8.

³⁰ *Id.*

³¹ *Id.* at 11.

³² *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*).

forbear from any regulatory obligations, including section 251(c) obligations, once the agency determined that they are no longer necessary, and encouraged the Commission to use forbearance and other means to encourage deployment of advanced telecommunications capability and remove barriers to infrastructure deployment.³³

13. In its initial orders implementing section 251(c)(3), the Commission adopted nationwide unbundling obligations for local loops used to serve mass market and enterprise customers on a technology-neutral basis, for dedicated and shared interoffice transport, and various other network elements. The courts rejected these initial attempts, in whole or in part, for a variety of reasons, including that overly-broad unbundling is inappropriate.³⁴ For example, the Supreme Court vacated the Commission's first order implementing broad unbundling regulations because it failed "to apply *some* limiting standard, rationally related to the goals of the Act," as the Act requires.³⁵ In a separate opinion, Justice Breyer observed that "given the Act's basic purpose, it requires a convincing explanation of why facilities should be shared or unbundled where a new entrant could compete effectively without the facility, or where practical alternatives to that facility are available."³⁶ Justice Breyer went on to explain that unbundling "by itself does not automatically mean increased competition. It is in the *un* shared, not in the shared, portions of the enterprise that meaningful competition would likely emerge."³⁷ The D.C. Circuit later vacated and remanded the Commission's next attempt to adopt unbundling rules, because, among other things, the agency failed to weigh potential negative effects of unbundling on incentives to invest in facilities-based competition, failed to analyze impairment on a sufficiently granular level, and did not adequately consider the role of intermodal competition.³⁸ Citing Justice Breyer's separate opinion, the D.C. Circuit explained 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."³⁹

14. Following the D.C. Circuit's remand, the Commission issued the *Triennial Review Order* in 2003, at the same time as the local markets were seeing the increased deployment of next-generation fiber-based loops. Considering section 251(c)(3)'s "at a minimum" language, the Commission declined to require unbundling for most fiber-based loops because it seemed likely to undermine important goals of the 1996 Act, specifically the exhortation in section 706 to encourage deployment of advanced telecommunications capability to all Americans by removing barriers to investment.⁴⁰ The Commission recognized that unbundling fiber-based loops could reduce incentives for both incumbent and competitive

³³ See 47 U.S.C. §§ 160(a), 1302(a). With respect to forbearing from section 251(c), Congress first required that section to be fully implemented. 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) (*Qwest Phoenix Order*), *aff'd*, *Qwest Corp. v. FCC*, 689 F.3d 1214 (10th Cir. 2012).

³⁴ 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.

³⁵ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. at 388-92 (vacating 47 CFR § 51.319).

³⁶ *Id.* at 428-29 (Breyer, J., concurring in part and dissenting in part) (internal quotation marks and alterations omitted)).

³⁷ *Id.*

³⁸ See *USTA I*, 290 F.3d at 422, 425-30 (vacating and remanding *UNE Remand Order*, 15 FCC Rcd 3696).

³⁹ *Id.* at 422, 425-30.

⁴⁰ *Triennial Review Order*, 18 FCC Rcd at 17087-88, para. 173.

LECs to deploy advanced facilities.⁴¹ The Commission reasoned that refraining from imposing such obligations would increase incentives for incumbent LECs to develop and deploy innovative new networks, while forcing competitive LECs to “seek innovative network access options to serve end users and to fully compete against incumbent LECs in the mass market,” with consumers benefitting from the race to build next-generation networks and increased competition in broadband service.⁴² The Court of Appeals for the D.C. Circuit affirmed the Commission’s decision not to require the unbundling of fiber-based loops, but remanded many other aspects of the *Triennial Review Order*, including the Commission’s nationwide impairment determinations with respect to dedicated transport elements and its decision that wireless carriers were impaired without access to unbundled dedicated transport.⁴³

15. In 2004, in response to the D.C. Circuit’s remand,⁴⁴ the Commission adopted the *Triennial Review Remand Order*. Acknowledging that certain markets were already sufficiently competitive and that competition could be expected to develop in markets with similar characteristics, the Commission limited incumbent LECs’ DS1 and DS3 loop unbundling obligations to buildings served by incumbent LEC wire centers without sufficient competitive presence and service demand.⁴⁵ It also limited the DS1, DS3, and dark fiber interoffice transport unbundling obligations depending on the level of current and anticipated competition by classifying wire centers into tiers “based on indicia of the potential revenues and suitability for competitive transport deployment.”⁴⁶ 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 the presence of pervasive competition in those markets that occurred without reliance on UNEs.⁴⁷ Although the Commission declined to eliminate unbundling requirements for competitors seeking to offer local telephone service, despite 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.”⁴⁸ The Commission ultimately imposed unbundling obligations only in those situations where it found unbundling “does not frustrate sustainable, facilities-based competition.”⁴⁹

16. While the *Triennial Review Remand Order* was the last time the Commission applied its impairment inquiry to consider the extent to which unbundling obligations should apply, the Commission has refined and reduced its unbundling rules by forbearing from UNE loop and transport obligations where there is evidence of facilities-based deployment and competition, or that continued unbundling requirements slow the transition to next-generation services.⁵⁰ For example, in 2005, the Commission granted the incumbent LEC Qwest relief from UNE loop and transport obligations in portions of its

⁴¹ *Id.* at 17071, para. 141, 17229, para. 404.

⁴² *Triennial Review Order*, 18 FCC Rcd at 17141-42, para. 272.

⁴³ *USTA II*, 359 F.3d 554 at 594-95.

⁴⁴ *See generally USTA II*, 359 F.3d 554.

⁴⁵ *Triennial Review Remand Order*, 20 FCC Rcd at 2627-28, para. 170, 2629-30, para. 174, 2632, para. 178.

⁴⁶ *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).

⁴⁷ *Triennial Review Remand Order*, 20 FCC Rcd at 2536, para. 3.

⁴⁸ *Id.* at 2556, n.116.

⁴⁹ *Id.* at 2535, para. 2.

⁵⁰ *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 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.

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.⁵¹ The Commission relied on the “substantial intermodal competition” presented by the cable competitor, Cox, over its “own extensive facilities” and, though noting that it had earlier determined that intermodal competition from cable providers “had not blossomed into a full substitute” for wireline voice service, determined that Cox had changed those circumstances within the Omaha MSA as a result of its investment in the network infrastructure in that area.⁵² In 2007, the Commission granted similar relief to ACS of Anchorage in wire centers located 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.”⁵³ In 2015, to further its goal of advancing the TDM to IP transition for next generation networks and services, the Commission eliminated one of the last unbundling requirements applicable to next-generation networks by granting forbearance on a forward-looking basis to incumbent LECs from the requirement to make available a 64 kbps voice-grade channel over overbuilt fiber loops.⁵⁴

17. More recently, in 2019, in response to USTelecom’s petition for forbearance,⁵⁵ we granted forbearance from certain loop and transport unbundling and resale obligations that had become increasingly outdated due to competitive fiber deployment, technological change, and intermodal competition.⁵⁶ In two orders, we determined that forbearance from unbundling obligations was warranted for: (1) DS1/DS3 dedicated interoffice transport (UNE DS1/DS3 Transport) between price cap incumbent LEC wire centers within a half mile of competitive fiber network deployment;⁵⁷ (2) two-wire and four-wire analog voice-grade copper loops, including the attached equipment (UNE Analog Loops) for price cap incumbent LECs throughout the entirety of their service areas;⁵⁸ and (3) Avoided-Cost Resale obligations throughout the entirety of price cap incumbent LECs’ service areas.⁵⁹ 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

⁵¹ *Qwest Omaha Order*, 20 FCC Rcd at 19417, para. 2 (quoting *Triennial Review Order*, 18 FCC Rcd at 17127, para. 245).

⁵² *Id.* at 19444, para. 59.

⁵³ *ACS Anchorage*, 22 FCC Rcd at 1960, paras. 1-2 (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”).

⁵⁴ See *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6189, para. 55, 6190, para. 57, 6194, para. 66.

⁵⁵ 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).

⁵⁶ See *UNE Transport Forbearance Order*, 34 FCC Rcd 5767; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd 6503. Throughout this Order, 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*.

⁵⁷ See *UNE Transport Forbearance Order*, 34 FCC Rcd at 5769, para. 4.

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

⁵⁹ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6504, para. 3.

the voice marketplace.⁶⁰ We further found that “the public interest is no longer served by maintaining these legacy regulatory obligations and their associated costs.”⁶¹

18. *Current Unbundling and Resale Requirements.* Currently, the Commission’s unbundling rules, subject to forbearance as 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 service 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 adopted in the *Triennial Review Remand Order* reflecting current and potential competition (UNE DS1 and DS3 Loops); (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 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.⁶² Incumbent LECs are also required to maintain access to a 64 kbps channel over fiber loops for existing customers.⁶³ The Commission has not found impairment with respect to any new unbundled network elements since 2004. In addition, non-price cap incumbent LECs must offer Avoided-Cost Resale to requesting carriers in their local exchange service areas.⁶⁴

19. In November 2019, we adopted the *Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services Notice of Proposed Rulemaking (Notice)* to comprehensively reexamine the Commission’s current unbundling rules in light of the substantial changes in voice and broadband service competition in the communications landscape. The *Notice* sought comment on proposals to modernize and update incumbent LECs’ remaining unbundling and resale obligations to better reflect the current marketplace realities of intermodal voice and broadband competition.⁶⁵ The sole unbundling obligation that the *Notice* did not propose to modify or eliminate is the requirement to unbundle 911/E911 databases.⁶⁶ The Commission also sought comment on the costs and benefits of its proposals, as well as proposed transition time frames.⁶⁷

20. Various parties, particularly incumbent and competitive LECs, vigorously debated the issues raised by the *Notice* in comments and reply comments filed in February and March 2020, and in *ex parte* letters filed thereafter.⁶⁸ On August 5, 2020, INCOMPAS, USTelecom, and many of their respective members (Joint Parties),⁶⁹ “in recognition of the current state of competition in the

⁶⁰ *Id.* at 6504, para. 3.

⁶¹ *Id.*

⁶² 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.

⁶³ *Id.* 51.319(a)(3)(iii)(C); *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 66.

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

⁶⁵ *Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services*, WC Docket No. 19-308, Notice of Proposed Rulemaking, 34 FCC Rcd 11290 (2019) (*UNE/Resale Notice* or *Notice*).

⁶⁶ 47 CFR § 51.319(e).

⁶⁷ *UNE/Resale Notice*, 34 FCC Rcd at 11325-27, paras. 94-102.

⁶⁸ See generally WC Docket No. 19-308.

⁶⁹ Specifically, aside from the trade associations, INCOMPAS and USTelecom, the parties to this agreement include: many of USTelecom’s incumbent LEC members—AT&T Services, Inc., CenturyLink, Inc. (now Lumen), Consolidated Communications, Inc., Frontier Communications Corp., and Verizon Communications Inc.—and many of INCOMPAS’ competitive LEC members—Allstream Business US, LLC, Digital West, First Communications, LLC, Biddeford Internet Corporation d/b/a GWI, IdeaTek Telecom, Mammoth Networks and

(continued....)

communications marketplace,” filed a compromise resolution (Compromise Proposal) in this docket for the Commission to consider regarding whether and to what extent incumbent LECs must continue to provide access to unbundled DS0 loops and associated copper subloops, DS1 loops, DS3 loops, and OSS.⁷⁰ The Joint Parties emphasized that the Compromise Proposal was a “bargained-for, negotiated outcome that reflects trade-offs and concessions between” nearly every interested competitive LEC and incumbent LEC in this docket that have previously disputed the appropriate scope of the Commission’s unbundling rules at the Commission, in this proceeding and in other proceedings, and in court.⁷¹ The Joint Parties further noted that the Compromise Proposal “necessarily departs in at least some ways from the specific positions each individual signatory has advanced in this proceeding,” but each proposal is a direct response to the record in this proceeding.⁷² The Joint Parties also assert that these resolutions are lawful and are logical outgrowths of the *Notice* proposals, “within the reasonable range of conclusions supported by the record,” and in the public interest.⁷³

21. On September 14, 2020, INCOMPAS, USTelecom, and many of their respective members, representing a majority of buyers and sellers of UNE Dark Fiber Transport, additionally reached a compromise proposal with regard to UNE Dark Fiber Transport. The parties agreed that the Commission should forbear and find non-impairment vis-a-vis Tier 3 wire centers located within half a mile of alternative fiber, subject to an eight-year transition period for existing UNE Dark Fiber Transport.⁷⁴

B. Today’s Communications Marketplace

22. The communications marketplace has dramatically transformed since Congress passed the 1996 Act. Incumbent LECs controlled 99.7% of the local telephone service market at that time.⁷⁵ Incumbent LECs’ wireline voice subscriptions now account for only approximately 39% of all wireline voice subscriptions and only 9% of all voice subscriptions across all technologies.⁷⁶ The fixed voice marketplace, once monopolized by incumbent LECs, now includes cable companies offering VoIP, fixed wireless providers, over-the-top VoIP providers, as well as competitive and incumbent LECs.⁷⁷ As for

Visionary Broadband, SnowCrest ISP & SnowCrest Telephone, Socket Telecom, LLC, TelNet Worldwide, Inc., and TPx Communications. Windstream Services, LLC signed as a member of both trade associations, in its capacity as an incumbent LEC and competitive LEC.

⁷⁰ Letter from INCOMPAS and USTelecom and Their Respective Members, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308 (filed Aug. 5, 2020) (INCOMPAS-USTelecom Compromise Proposal) (noting the compromise is only with regard DS0 loops and associated copper subloops, DS1 loops, DS3 loops, and OSS). The Joint Parties discussed but did not reach a compromise regarding dark fiber transport at that time and avoided-cost resale. The Joint Parties did not discuss UNE Analog Loops in non-price cap areas, 64 kbps voice-grade channels over last-mile fiber loops, Multiunit Premises UNE Subloops, NIDs, and the TDM capabilities, features, and functionalities of hybrid loops.

⁷¹ *Id.* at 1.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ Letter from INCOMPAS and USTelecom and Their Respective Members, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308 (filed Sept. 14, 2020) (INCOMPAS-USTelecom Dark Fiber Compromise Proposal).

⁷⁵ See *First Local Competition NPRM*, 11 FCC Rcd at 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.

⁷⁶ FCC Form 477 Voice Subscription Data, preliminary data as of December 31, 2019, Tbl. 1, Voice Subscriptions – Total for US, Reference Lines 1, 4, and 5. See generally, FCC Office of Economics and Analytics, Industry Analysis Division, Voice Telephone Services: Status as of December 31, 2018, at Table 1, Reference Lines 1, 4, and 5.

⁷⁷ See, e.g., *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509, para. 12.

fixed broadband, incumbent LECs are just one of many intermodal competitors, providing only about 22% of residential broadband subscriptions at or above 25/3 Mbps, which the Commission has defined as advanced telecommunications capability.⁷⁸ As of December 31, 2019, 99% of Americans had access to three providers of mobile voice and broadband.⁷⁹ Finally, as the Commission found in the *BDS Order*, the enterprise market is subject to “intense competition,”⁸⁰ with 95% of census blocks with business data services demand in price cap MSAs, representing 99% of business establishments, featuring at least one competitive provider in addition to the incumbent LEC.⁸¹

23. The communications marketplace has also seen rapid technological change. In the enterprise services marketplace, DS1 and DS3 loops, dominated by incumbent LECs, have been increasingly replaced by packet-based services, provided by a range of providers who benefit from a “considerably more level playing field” compared to TDM-based services.⁸² The copper-to-fiber and TDM-to-IP transitions have also increasingly reached residential consumers, as incumbent LECs have been retiring last-mile copper and replacing it with fiber or fixed wireless technologies.⁸³ And of course, American consumers have themselves transitioned to newer technologies, increasingly moving from fixed legacy voice to fixed or nomadic voice over Internet protocol (VoIP) and mobile voice services, and from DSL to broadband provided over fiber and fixed and mobile wireless.⁸⁴ The widespread deployment of 5G wireless networks will only accelerate this process.⁸⁵

III. DISCUSSION

24. Today, we modernize our unbundling rules in light of the dramatic changes to the communications marketplace since 2004, when the Commission last examined unbundling obligations through the impairment lens. We eliminate, subject to a transition period, unbundling obligations for loops, transport, and other elements where record evidence shows that they are no longer necessary for reasonably efficient competitors to enter the market. Recognizing that some unbundling obligations have continued benefits in providing competitive telecommunications services and broadband access in rural areas, where competitive entry is harder because of entry barriers to fixed broadband services, including sunk costs,⁸⁶ we maintain several unbundling requirements, including for mass market broadband-capable loops in less densely populated areas.

⁷⁸ Commission staff calculations based on Form 477 data as of December 31, 2019. Cable providers provide approximately 74% of 25/3 Mbps residential subscriptions. *Id.*; see also *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509, para. 12; *2018 Communications Marketplace Report*, Report, GN Docket No. 18-231 et al., 33 FCC Rcd 12558, 12649, para. 180 (2018) (*2018 Communications Marketplace Report*).

⁷⁹ FCC Form 477 data as of December 31, 2019. As of the date of this Order, December 2019 is the latest data available to the Commission, so we cannot report coverage after the T-Mobile/Sprint merger, and this data treats T-Mobile and Sprint as separate providers.

⁸⁰ *BDS Order*, 32 FCC Rcd at 3460, para. 1.

⁸¹ See *id.* at 3481, para. 42.

⁸² See *id.* at 3468, para. 16, 3490-91, paras. 67-68, 3498, para. 83.

⁸³ See generally <https://www.fcc.gov/wireline-competition/general/section-251-wireline-network-changes> (listing carrier network change notices, many of which involve the retirement of copper to be replaced with fiber).

⁸⁴ See *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All American in a Reasonable and Timely Fashion*, GN Docket No. 19-285, 2020 Broadband Deployment Report, 35 FCC Rcd 8986, 9031-32, paras. 91-92 (Apr. 24, 2020) (*2020 Broadband Deployment Report*); *2018 Communications Marketplace Report*, 33 FCC Rcd at 12668-69, paras. 205-07.

⁸⁵ See *2020 Broadband Deployment Report*, 35 FCC Rcd at 8987, para. 2, 8990, para. 11, 9031-32, para. 91; *2018 Communications Marketplace Report*, 33 FCC Rcd at 12589, para. 35, 12667, para. 200.

⁸⁶ Sunk costs are investments that have no scrap value or value in an alternative use, e.g., a fiber cable connecting a customer’s location to the provider’s network. Most wireline network costs are sunk for at least twenty years. See

(continued....)

A. UNE Loops

25. Loops are the “last mile of a carrier’s network,” connecting end-users to the network to access voice, broadband, and other technologies.⁸⁷ Under existing law, incumbent LECs must provide at least some limited unbundled access nationwide to (1) DS1 and DS3 loops and associated subloops, (2) DS0 loops and associated subloops, and (3) the TDM-capabilities, features, and functionalities of hybrid copper-fiber loops.⁸⁸ Subject to previous grants of forbearance, incumbent LECs must also provide unbundled access to UNE Analog Loops in non-price cap incumbent LEC service areas and to 64-kbps channels over fiber loops that were ordered before 2015.⁸⁹

1. UNE DS1 and DS3 Loops

26. We proposed in the *Notice* to find that competitive LECs are no longer impaired in those counties and study areas deemed competitive in the *BDS Order*⁹⁰ and *RoR BDS Order*⁹¹ (collectively, Competitive Counties), subject to a carve-out for UNE DS1 Loops used for residential purposes.⁹² Based on the record in this proceeding, as well as the Commission’s findings in the *BDS Order*, we adopt a modified version of this proposal and find that unbundled access to DS1 and DS3 loops in the Competitive Counties,⁹³ where demand for business data services is most highly concentrated, is unwarranted because competitive LECs are no longer impaired without access to these UNEs, and thus, incumbent LECs no longer need to provide unbundled access in these locations.⁹⁴ Moreover, we find that continued unbundling of those network elements is not warranted because it frustrates the congressionally mandated policy goal of ensuring the deployment of next-generation networks and services.⁹⁵ Further,

BDS Order, 32 FCC Rcd at 3517-19, paras. 127-28; *Triennial Review Order*, 18 FCC Rcd at 17028-29, para. 75. In addition, entrants may face other entry barriers including achieving scale economies and absolute cost disadvantages. Scale economies can be a barrier to entry if entrants are likely to attract fewer customers than competitors, making it more difficult for the entrant to compete against its competitors if it faces higher average cost and the market retail price is close to its competitor’s average cost. *Triennial Review Order*, 18 FCC Rcd at 17028-29, para. 75. Absolute cost advantages can occur if the incumbent providers have privileged access to resources. *Id.* An incumbent firm may also have other first mover advantages, e.g., because they have a relatively high penetration rate for their services and consumers face high costs in switching providers. *See generally id.*

⁸⁷ *UNE/Resale Notice*, 34 FCC Rcd at 11301, para. 25 (quoting *Triennial Review Remand Order*, 20 FCC Rcd at 2614-15, para. 147 (internal quotation marks omitted)).

⁸⁸ 47 CFR § 51.319(a).

⁸⁹ *Id.*; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6504, paras. 2-3 (describing scope of UNE Analog Loop forbearance); *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 66 (describing grandfathering of 64 kbps channel).

⁹⁰ *BDS Order*, 32 FCC Rcd 3459.

⁹¹ *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. 16-143 et al., Report and Order, Second Further Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 33 FCC Rcd 10403 (2018) (*RoR BDS Order*).

⁹² *UNE/Resale Notice*, 34 FCC Rcd at 11302, para. 27.

⁹³ A list of the Competitive Counties can be found at <https://docs.fcc.gov/public/attachments/DOC-344863A1.pdf>.

⁹⁴ *See infra* Section III.F.

⁹⁵ *See* 47 U.S.C. § 1302(a); *see also USTA II*, 359 F.3d at 580 (holding that “the Commission reasonably interpreted § 251(c)(3) 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 (declining to require unbundling for fiber-based loops because even if “some level of impairment may exist,” “unbundling appeared likely to undermine important goals of the 1996 Act,” including Congress’s mandate in section 706 that the Commission encourage the deployment of advanced telecommunications capability to all Americans by removing barriers to investment).

independent of our non-impairment finding, we find that forbearance from these obligations in the Competitive Counties is warranted. The record overwhelmingly supports this conclusion. INCOMPAS, USTelecom, and most of their members participating in this proceeding agree that both a non-impairment finding and forbearance is appropriate for the Competitive Counties.⁹⁶ None of these findings, however, apply to non-competitive counties, where UNE DS1 and DS3 Loops will remain available, subject to the limits established in the *Triennial Review Remand Order*.⁹⁷ Finally, we decline to adopt a residential carve-out for UNE DS1 Loops, finding that the costs and burdens associated with such an exemption outweigh the benefits.

27. *Background.* Our rules require that incumbent LECs make DS1 and DS3 loops, which are predominantly used to provision service to enterprise customers, available as UNEs on a limited basis.⁹⁸ The Commission adopted these unbundling requirements for DS1 and DS3 loops more than 16 years ago.⁹⁹ The Commission based its impairment analysis at that time on two factors: the existence of actual competition and the inference to be drawn from the potential for competition in similar markets.¹⁰⁰ The Commission found that “the presence of fiber-based collocations in a wire center service area is a good indicator of the potential for competitive deployment of fiber rings” and “a wire center service area’s business line count is indicative of its location in or near a large central business district, which is likely to house multiple competitive fiber rings (and thus numerous splice points) with laterals to multiple buildings.”¹⁰¹ When viewed together, the Commission explained, these characteristics “are likely to correspond with actual self-deployment of competitive LEC loops or to indicate where deployment would be economic and potential deployment likely.”¹⁰² It thus found that competitive LECs were not impaired without unbundled access to DS1 loops only in wire centers where there are at least 60,000 business lines and four or more fiber-based collocators.¹⁰³ It also found that competitive LECs were not impaired without unbundled access to DS3 loops in wire centers where there are at least 38,000 business lines and four or more fiber-based collocators.¹⁰⁴

28. In explaining these findings, the Commission noted that its “selection of specific criteria is not an exact science, and the Commission may exercise line-drawing discretion when rendering determinations based on agency expertise, our reading of the record before us, and a desire to provide an easily implemented and reasonable bright-line rule to guide the industry.”¹⁰⁵ The Commission limited the availability of these UNEs to ten UNE DS1 Loops and one UNE DS3 Loop per building, respectively,¹⁰⁶ finding that competitors are more likely to self-provision higher capacity loops at a certain level of bandwidth demand because of the greater economic feasibility resulting from the fact that “revenue opportunities increase with the capacity level.”¹⁰⁷ It also indicated that even these revised unbundling

⁹⁶ INCOMPAS-USTelecom Compromise Proposal at 2-3.

⁹⁷ See *Triennial Review Remand Order*, 20 FCC Rcd at 2631, para. 177 (limiting UNE DS3 Loop availability to one loop per building), 2632, para. 181 (limiting UNE DS1 Loop availability to ten loops per building).

⁹⁸ 47 CFR §§ 51.319(a)(4) and (a)(5). These loops operate at a total digital signal speed of 1.544 Mbps and 44.736 Mbps, respectively. *Id.*

⁹⁹ *Triennial Review Remand Order*, 20 FCC Rcd at 2629-33, paras. 174-81.

¹⁰⁰ *Id.* at 2586-88, paras. 87-92.

¹⁰¹ *Id.* at 2625, para. 167.

¹⁰² *Id.* at 2626, para. 167.

¹⁰³ *Id.* at 2632, para. 179.

¹⁰⁴ *Id.* at 2629, para. 174, 2632, para. 178; see also 47 CFR §§ 51.319(a)(4) and (a)(5).

¹⁰⁵ *Triennial Review Remand Order*, 20 FCC Rcd at 2627, para. 169.

¹⁰⁶ See 47 CFR §§ 51.319(a)(4)-(5).

¹⁰⁷ *Triennial Review Remand Order*, 20 FCC Rcd at 2616, para. 149.

obligations were designed to be removed “over time as carriers deploy their own networks and downstream local exchange markets exhibit the same robust competition that characterizes the long distance and wireless markets.”¹⁰⁸

29. In the more recent *BDS Order*, the Commission undertook a comprehensive analysis of the business data services market.¹⁰⁹ This analysis focused extensively on the market for TDM-based DS1 and DS3 channel terminations, which are functionally identical products to UNE DS1 and DS3 Loops.¹¹⁰ The Commission found that “[t]o a large extent in the business data services market, the competition envisioned in the [1996 Act] has been realized,”¹¹¹ and “any prior advantage an incumbent might have enjoyed at lower bandwidths is now less competitively relevant in light of customer demand that attracts a number of traditional and non-traditional competitors that are improving legacy cable networks and expanding with new facilities to meet demand.”¹¹²

30. Relying upon the most comprehensive data collected from both purchasers and providers of BDS services to date, including circuit-based and packet-based BDS providers and significant providers of best-efforts services,¹¹³ and Form 477 data,¹¹⁴ the Commission created a Competitive Market Test to determine which counties are competitive for purposes of business data services.¹¹⁵ The Commission determined that combining these two data sets would “approximate the full spectrum of competition in the business data services market, including competition from medium-term entrants.”¹¹⁶

¹⁰⁸ See *id.* at 2535-36, para. 3.

¹⁰⁹ See generally *BDS Order*, 32 FCC Rcd 3459. “Business data services refers to the dedicated point-to-point transmission of data at certain guaranteed speeds and service levels using high-capacity connections.” *Id.* at 3643, para. 6.

¹¹⁰ See, e.g., USTelecom Comments at 9; Verizon Comments at 7-8; see also 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”).

¹¹¹ *BDS Order*, 32 FCC Rcd at 3462, para. 5.

¹¹² *Id.* at 3498, para. 84; see also *id.* at 3506, para. 96 (“The market for these services is declining as customers opt for more flexible packet-based business data service offerings.”).

¹¹³ See *id.* at 3506, para. 103. Best-efforts services are Internet access services generally marketed to residential and small business consumers, rather than enterprise consumers. Unlike dedicated packet-based BDS, best-efforts services often provide asymmetrical speeds and lack service performance guarantees. *Id.* at 3474, para. 30. While the Commission found in the *BDS Order* that best-efforts services generally did not directly compete with fiber-based BDS, the Commission found that the underlying facilities used to provision best-efforts services were being modernized to provide competitive BDS. *Id.* at 3475, para. 31.

¹¹⁴ Providers report their broadband deployment to the Commission semi-annually using FCC Form 477. See generally *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Report and Order, 28 FCC Rcd 9887 (2013); *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, 15 FCC Rcd 7717 (2000).

¹¹⁵ *BDS Order*, 32 FCC Rcd at 3502-06, paras. 94-107. The Eighth Circuit upheld the portion of the *BDS Order* adopting the Competitive Market Test, while remanding other portions of the *BDS Order* on notice grounds. See *Citizens Telecommunications Co. of Minnesota, LLC v. FCC*, 901 F.3d 991, 1007-10 (8th Cir. 2018) (*Citizens Telecom. v. FCC*).

¹¹⁶ *BDS Order*, 32 FCC Rcd at 3521, para. 134 (referring to traditional competitive providers and cable providers). The Commission determined that basing the Competitive Market Test on “the geographic unit of a county or county-equivalent” would “significantly reduce[] the over-and-under-inclusivity issue posed by MSAs [metropolitan statistical areas] . . . and avoid[] the administrability issues posed by smaller geographic units of measure.” *Id.* at

(continued....)

The Commission determined that a county will be deemed competitive when either (1) at least 50% of the locations with BDS demand within the county are within a half mile of a competitive provider's network, or (2) a cable competitor's network serves at least 75% of the census blocks with BDS demand within the county.¹¹⁷

31. *Impairment Analysis.* UNE DS1 and DS3 Loops are functionally equivalent to DS1 and DS3 BDS end-user channel terminations, with the only real difference being their respective prices.¹¹⁸ Indeed, UNE DS1 and DS3 Loops and DS1 and DS3 BDS end-user channel terminations use the very same incumbent LEC facilities.¹¹⁹ So where there is evidence that competition for BDS DS1 and DS3 end-user channel terminations exists, as demonstrated by the Competitive Market Test, such competition also exists for UNE DS1 and DS3 Loops. And that competition includes packet-based alternatives to DS1 and DS3 Loops, which are more versatile and capable of handling the increasingly higher bandwidth needs of business customers,¹²⁰ thus demonstrating that DS1 and DS3 loops are no longer a reasonably efficient technology to enter the enterprise marketplace in the Competitive Counties. The existence of actual and potential competition, intermodal or otherwise, in the Competitive Counties leads us to conclude that unbundling DS1 and DS3 loops is unwarranted even in the face of some level of impairment.¹²¹ Finally, continuing the unbundling obligations for DS1 and DS3 loops is at odds with Congress's mandate in section 706 that we take action to encourage the deployment of advanced telecommunications capabilities. Thus, consistent with our proposal in the *Notice*, we find that where the Commission in the *BDS* proceeding found actual or potential competition, competitive LECs seeking to enter the business data services market are no longer impaired without unbundled access to DS1 and DS3 Loops, and those UNE requirements are no longer necessary.

32. Given the demands for ever-increasing broadband speeds,¹²² and packet-based services,¹²³ we find that a reasonably efficient competitor would not use UNE DS1 and DS3 Loops as a

3503, para. 97; *see also id.* at 3508, para. 108. It went on to determine that “nearby [non-incumbent LEC wireline] competitors” with “nearby networks” are “effective competitor[s] in meeting BDS demand at a location if it either delivers BDS to a location or has a network within one half mile of the location with BDS demand, and/or is a cable company with a widespread HFC [hybrid fiber coax] network that surrounds the location with BDS demand.” *Id.* at 3513-14, para. 119.

¹¹⁷ *Id.* at 3521-27, paras. 135-44.

¹¹⁸ *See id.* at 3476, para. 32 (finding that UNE DS1 and DS3 Loops and DS1 and DS3 BDS channel terminations “are particularly close substitutes”); *see also* USTelecom Comments at 9; Verizon Comments at 7-8; AT&T Reply at 8-9; CenturyLink Reply at 14 (noting that “the Commission’s competitive findings in the *BDS Order* and *BDS Remand Order* were based on data for business data services deemed to be interchangeable with their UNE counterparts”); USTelecom Comments at 9; AT&T Comments at 10; CenturyLink Comments at 27; Puerto Rico Tel. Co. Comments at 5; Verizon Comments at 7-8. We specifically sought comment in the *Notice* about whether there are any other differences, *see UNE/Resale Notice*, 34 FCC Rcd at 11303, para. 29, and commenters did not point us to any differences other than price. Because the UNE DS1 and DS3 Loops and DS1 and DS3 BDS channel terminations are functionally the same other than as to price, and in light of the vibrant intermodal competition discussed below, we find that elimination of these unbundling requirements will not impact the provision of 9-1-1 service. *See* NASUCA Reply at 8; *see also* California PUC Comments at 4-5; Michigan PSC Reply at 5 (both asserting that the Commission must consider public safety considerations).

¹¹⁹ *See, e.g., Qwest Omaha Order*, 20 FCC Rcd at 19449, para. 68 (finding that “with regard to the enterprise market, Qwest has provided evidence that a number of carriers have had success competing for enterprise services using DS1 and DS3 special access channel terminations obtained from Qwest.”).

¹²⁰ *BDS Order*, 32 FCC Rcd at 3470-71, para. 23.

¹²¹ *See Triennial Review Remand Order*, 20 FCC Rcd at 2555-56, para. 37.

¹²² *BDS Order*, 32 FCC Rcd at 3461, para. 3; *RoR BDS Order*, 33 FCC Rcd at 10404, para. 2; *BDS Remand Order*, 34 FCC Rcd at 5782, para. 31.

¹²³ *BDS Order*, 32 FCC Rcd at 3503, para. 96.

reasonably efficient technology for entering the enterprise services market in the Competitive Counties.¹²⁴ The communications marketplace today is dramatically different from the one that existed when the Commission last addressed impairment over a decade ago.¹²⁵ Indeed, the Commission found in the *BDS Order* that “[f]unctionally, TDM and packet-based services are broadly interchangeable in the business data services realm as both are used to provide connectivity for data network and point-to-point transmissions and both services can be delivered over the same network infrastructure.”¹²⁶ It thus went on to find that “legacy TDM business data services suppliers would be constrained by the threat of potential customer loss to packet-based business data services suppliers.”¹²⁷ One competitive LEC commenter in this proceeding made this clear when it noted that the bandwidth available through bonding multiple DS1 loops “might let a small business survive until another solution can be found.”¹²⁸ But where competition, or the potential for competition,¹²⁹ exists, such other solution has, by definition, been found because that competition comes from facilities-based providers using non-incumbent LEC facilities. And that competition includes packet-based services, which are scalable for the ever-increasing bandwidth needs of enterprise customers. In light of this next-generation competition, we find that a reasonably efficient competitor would not use UNE DS1 and DS3 Loops when seeking to enter the enterprise marketplace in the Competitive Counties. Thus, where the Competitive Market Test has shown that a particular county or study area is competitive,¹³⁰ we no longer require incumbent LECs to make UNE DS1 and DS3 Loops available after an appropriate transition period.

33. This actual and potential competition comes in many forms, including from cable and fixed wireless providers who entered, or are entering, the market without reliance on UNEs. The record demonstrates that cable providers are even more significant competitors for enterprise services today than they were when the Commission explained their significance three years ago in the *BDS Order*.¹³¹ And while the Commission previously found that fixed wireless had a limited role in the BDS marketplace, it noted “the promise of 5G technology to provide quality high-bandwidth fixed wireless services to businesses in urban areas” and found that “fixed wireless services should be included in the product market

¹²⁴ See, e.g., R Street Institute Comments at 6-8; CenturyLink Reply at 40.

¹²⁵ See *supra* Section II.A.2.; see also CenturyLink Reply at 1. Incumbent LECs were the dominant providers of TDM-based DS1s and DS3s in 2004, *BDS Order*, 32 FCC Rcd at 3461, para. 3, and cable was only beginning to make inroads into the enterprise services market at that time. Today, TDM-based DS1 and DS3 loops are becoming obsolete in the face of increasing bandwidth demands and the transition to IP-based networks and services. *Id.*; *RoR BDS Order*, 33 FCC Rcd at 10404, para. 2. Their availability will become further constrained as incumbent LECs move forward with retiring their copper facilities, deploying packet-based services, and phasing out TDM services like DS1 and DS3 business data services.

¹²⁶ *BDS Order*, 32 FCC Rcd at 3471, para. 46; see also CenturyLink reply at 11 (asserting that CenturyLink has incentive to keep competitive LECs on their networks rather than on the networks of their facilities-based competitors).

¹²⁷ *BDS Order*, 32 FCC Rcd at 3472, para. 26; see also CenturyLink reply at 11 (asserting that CenturyLink has incentive to keep competitive LECs on their networks rather than on the networks of their facilities-based competitors). And it noted the diminishing use and availability of UNE DS1 and DS3 Loops. *BDS Order*, 32 FCC Rcd at 3476, paras. 32-34; see also CenturyLink Reply at 12-13.

¹²⁸ Socket Declaration at para. 78.

¹²⁹ See *Triennial Review Remand Order*, 20 FCC Rcd at 2536-37, para. 5, 2625, para. 166; *BDS Order*, 32 FCC Rcd at 3503, paras. 96-97.

¹³⁰ See *BDS Order*, 32 FCC Rcd at 3512-13, 3519-27, paras. 118-19, 130-44.

¹³¹ CenturyLink Comments at 8, 26-27 (explaining that CenturyLink’s revenues for TDM-based BDS have fallen significantly since 2015 and are expected to continue to do so, while its Ethernet purchases rise); Puerto Rico Tel. Co. Comments at 6; USTelecom Comments at 13-14 (collecting evidence of cable investment in BDS); Verizon Comments at 9-10. Cable providers account for 65% of the 2.9 million non-consumer connections meeting a 25/3 Mbps speed threshold. FCC Form 477 data as of December 31, 2019.

discussion because they may have a competitive effect on the market.”¹³² This is the competition envisioned by the 1996 Act,¹³³ and we would be remiss to not take into account competition from these providers.¹³⁴ Indeed, to ignore this competition and to allow continued reliance on UNEs in these areas would slow the transition to next-generation services, in contravention of the goals of section 706 and our preference for sustainable facilities-based competition, goals we are permitted to consider based on our “at a minimum” authority.¹³⁵

34. We realize that the *BDS Order* examined competition on a county level,¹³⁶ whereas the Commission made its 2004 impairment findings based on an analysis of the smaller geographical level of wire centers.¹³⁷ The Commission specifically found that “basing the competitive market test at the county level strikes the best balance between being sufficiently granular and administratively feasible,”¹³⁸ a finding upheld by the Eighth Circuit.¹³⁹ This concept of striking a balance between granularity and administrability is equally relevant and important in the UNE context.¹⁴⁰ We infer from the level of

¹³² *BDS Order*, 32 FCC Rcd at 3479, para. 38.

¹³³ See *AT&T v. Iowa Utils. Bd.*, 525 U.S. at 429 (Breyer, J., concurring in part and dissenting in part) (“Increased sharing by itself does not automatically mean increased competition. It is in the *un* shared, not in the shared, portions of the enterprise that meaningful competition would likely emerge.” (Emphasis in original)).

¹³⁴ Indeed, in the context of affirming the Commission’s decision not to require incumbent LECs to unbundle the broadband capabilities of hybrid loops, the D.C. Circuit stated “we agree with the Commission that robust intermodal competition from cable providers . . . means that even if all CLECs were driven from the broadband market, mass market consumers will still have the benefits of competition between cable providers and ILECs.” *USTA II*, 359 F.3d at 582; see also *USTA I*, 290 F.3d at 428-29; *Triennial Review Order*, 18 FCC Rcd at 17151-52, para. 292 (“A primary benefit of unbundling hybrid loops - that is, to spur competitive deployment of broadband services to the mass market - appears to be obviated to some degree by the existence of a broadband service competitor with a leading position in the marketplace.”); CenturyLink Reply at 7-8.

¹³⁵ See 47 U.S.C. § 251(d)(2); 47 U.S.C. § 1302(a); see also *USTA II*, 359 F.3d at 580 (affirming the Commission’s decision to interpret “§ 251(c)(3) to allow it to withhold unbundling orders, even in the face of some impairment, where such unbundling would pose excessive impediments to infrastructure investment”).

¹³⁶ *BDS Order*, 32 FCC Rcd at 3508-09, para. 109.

¹³⁷ *Triennial Review Remand Order*, 20 FCC Rcd at 2619-23, paras. 155-61.

¹³⁸ *BDS Order*, 32 FCC Rcd at 3508, para. 108.

¹³⁹ See *Citizens Telecom. v. FCC*, 901 F.3d at 1011 (rejecting challenges to competitive market test).

¹⁴⁰ See, e.g., *AT&T v. Iowa Utils. Bd.*, 525 U.S. at 429-30 (Breyer, J., concurring in part and dissenting in part) (“The upshot, in my view, is that the statute’s unbundling requirements, read in light of the Act’s basic purposes, require balance.”); see also GTA Comments at 5 (“When it comes to measures such as unbundling and resale obligations, there is a balance between promoting competition and stifling growth and improvement.”); Puerto Rico Tel. Co. Comments at [9] (“PRTC urges the Commission to apply as part of its impairment analysis the same geographical area that applied to DS1 and DS3 Channel Terminations in the *BDS Order*. The Commission correctly concluded in the *BDS Order* that, as it related to DS1 and DS3 Channel Terminations, counties were “granular enough to capture reasonably similar competitive conditions yet large enough to be administratively feasible.” The same logic should hold here when dealing with UNE DS1 and DS3 Loops, which are functional equivalents from a technical and operational perspective. It also would foster administrative efficiency to determine on an ongoing basis the regulatory status of these functionally equivalent services based on the same geographic area.”). But see INCOMPAS/NWTA Comments at 22 (“There is no reason to eliminate the existing, more granular wire-center-based approach. The current unbundling rules limit 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’ (at least 60,000 business lines and four facilities-based collocators for UNE DS1 Loops and at least 38,000 business lines and four-based collocators for UNE DS3 Loops). And while collocations as a part of this test may need to be revisited to find a more suitable proxy, the idea of developing proxies to ‘capture[] areas characterized by high revenue opportunities and the likely presence of multiple competitive fiber rings’ such that entry barriers could be anticipated to be lower was and remains sound.”).

competition in the Competitive Counties now and the growth in competitive providers deploying in areas previously outside their footprints that these locations will ultimately become competitive. Thus, while some customers within a Competitive County may not currently have available to them the competition relied on by the Commission in deeming that county to be competitive,¹⁴¹ that number will be relatively small and will likely shrink over time. Indeed, the Commission noted in the *BDS Order* that it expected as much.¹⁴² This approach is consistent with the Commission's use of the impairment inquiry in 2004, when the Commission "dr[e]w reasonable inferences regarding the prospects for competition in one geographic market based on the state of competition in other, similar markets."¹⁴³

35. Some competitive LEC commenters assert that the Commission's reliance on the *BDS Order*'s competitive findings is at odds with "the level of competition required by the [*Triennial Review Remand Order*'s] findings."¹⁴⁴ We disagree. As the Commission specifically found in the *BDS Order*, for the purposes of enterprise services, "the largest benefits from competition come from the presence of a second provider, with added benefits of additional providers falling thereafter, in part because, consistent with other industries with large sunk costs, the impact of a second provider is likely to be particularly profound in the case of wireline network providers."¹⁴⁵ Moreover, the competitive findings in the *BDS Order* support our findings of (1) no impairment, (2) the existence of intermodal competition supporting unbundling even in the face of some level of impairment,¹⁴⁶ and (3) that eliminating this unbundling obligation furthers the goal of advancing deployment of next-generation facilities and services.¹⁴⁷ The Commission found in the *BDS Order*, "[t]o a large extent in the business data services market, the competition envisioned in the Telecommunications Act of 1996 . . . has been realized."¹⁴⁸ The existence of wireline competitors in the Competitive Counties demonstrates that market entry and thus competition without UNE DS1 and DS3 Loops is possible in these areas. Indeed, we found in last year's *BDS Remand Order* that the vast majority of business locations in Competitive Counties are served by wire centers within a half-mile of competitive fiber.¹⁴⁹ And the Commission found in the *BDS Order* that the level of competition based on the Competitive Market Test was likely understated and that it will only

¹⁴¹ See, e.g., *BDS Order*, 32 FCC Rcd at 3516, para. 124; see also Allstream Comments at 19-20.

¹⁴² *BDS Order*, 32 FCC Rcd at 3532, para. 162.

¹⁴³ *Triennial Review Remand Order*, 20 FCC Rcd at 2536, para. 5.

¹⁴⁴ Joint INCOMPAS/NWTA Comments at 23-24; see also Cloud Communications Alliance Reply at 8 (asserting that a duopoly does not provide a sufficient level of competition). We note that INCOMPAS, along with the majority of its members that have filed comments in this proceeding, signed the Compromise Proposal that states that the competitive providers are no longer impaired in the Competitive Counties without access to UNE DS1 and DS3 Loops. See INCOMPAS-USTelecom Compromise Proposal at 2-3.

¹⁴⁵ *BDS Order*, 32 FCC Rcd at 3514, para. 120. This is consistent with 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. See *Restoring Internet Freedom Order*, 33 FCC Rcd at 384-85, para. 126.

¹⁴⁶ See *Triennial Review Remand Order*, 20 FCC Rcd at 2555-56, para. 37 ("Where a requesting carrier seeks access to a UNE in order to provide a telecommunications service where competition has evolved without access to such a UNE, we find the costs cognizable under the Act of unbundling that UNE outweigh the benefits of unbundling, even if some level of impairment might be present. We believe this application of our at a minimum authority is the most faithful implementation of *USTA II*. There, the court recognized that the structure of the Act 'suggests that "impair" must reach a bit beyond natural monopoly,' and thus, before making an unbundling determination, the Commission reasonably may examine the full context of that decision, including the costs of unbundling, under the 'at a minimum' language of section 251(d)(2).").

¹⁴⁷ See 47 U.S.C. § 1302(a).

¹⁴⁸ *BDS Order*, 32 FCC Rcd at 3462, para. 5.

¹⁴⁹ *BDS Remand Order*, 34 FCC Rcd at 5777, para. 20.

continue to grow,¹⁵⁰ and the competition that existed at the time of the 2015 Data Collection will not recede because those competitors have already incurred substantial sunk costs.¹⁵¹ Those competitors, including intermodal competitors providing advanced telecommunications capability over next-generation networks, did not need to rely on UNE DS1 and DS3 Loops to enter these markets. We thus disagree with commenters who assert that a reasonably efficient competitor would still need to rely on UNE DS1 and DS3 Loops to enter a new market.¹⁵²

36. We also disagree with competitive LEC objections to the Commission taking into consideration competition from cable providers in conducting its impairment analysis.¹⁵³ Cable providers are much more significant competitors for enterprise services than they were 15 years ago when the Commission initially considered their role in the marketplace for determining unbundling obligations for DS1 and DS3 loops.¹⁵⁴ Indeed, only three years later in the *Qwest Omaha Order*, the Commission viewed such providers as a source of competition for forbearance purposes.¹⁵⁵ Fast forward almost a decade to the *BDS Order*, and the Commission noted the dramatic strides of cable providers in becoming “formidable competitors” over their own fiber and hybrid facilities in the business data services market.¹⁵⁶

¹⁵⁰ See *BDS Order*, 32 FCC Rcd at 3515, para. 122 (“We also distinguish our analysis here from that which the Commission employed in the *Qwest Phoenix* order. Although our competitive market test takes into account competition only from providers of copper, fiber, and coax last-mile facilities, in many locations there are likely more competitors present than the two captured by the test, such as providers of fixed wireless last-mile services, including providers of emerging 5G last-mile transmission technology, which promises to be widespread. Thus, technological changes that have occurred or are likely to occur in the near future make the Commission’s reasoning in the *Qwest Phoenix* decision inapposite.”); see also *id.* at 3461, para. 1, 3482, para. 44, 3501, para. 91 (in the context of transport), 3493-94, para. 75.

¹⁵¹ See *id.* at 3484, para. 54, 3490, n.209, 3507, para. 106, 3515, para. 121; see also *Triennial Review Order*, 18 FCC Rcd at 17107, para. 205; *Triennial Review Remand Order*, 20 FCC Rcd at 2616, para. 150.

¹⁵² See, e.g., Socket Decl. ¶ 78; First Communications Comments at paras. 8–10; see also *BDS Order*, 32 FCC Rcd at 3503, para. 96 (“The market for these services is declining as customers opt for more flexible packet-based business data service offerings.”).

¹⁵³ See, e.g., INCOMPAS/NWTA Comments at 3-4, 24.

¹⁵⁴ See *Triennial Review Remand Order*, 20 FCC Rcd at 2556-57, para. 39 (noting that at that time, “cable companies predominantly compete in the mass market for broadband services throughout the country,” and that “[t]o the extent that they compete in other product markets, like the enterprise services market, such competition is evolving more slowly and in more limited geographic areas”); see also *Qwest Omaha Order*, 20 FCC Rcd at 19446-48, paras. 63-66.

¹⁵⁵ See, e.g., *Qwest Omaha Order*, 20 FCC Rcd at 19948, para. 66 (“While Cox has captured a larger share of mass market customers to date, in light of record evidence of Cox’s strong success in the mass market, its possession of the necessary facilities to provide enterprise services, its technical expertise, its economies of scale and scope, its sunk investments in network infrastructure, its established presence and brand in the Omaha MSA, and its current marketing efforts and emerging success in the enterprise market, we must conclude that Cox poses a substantial competitive threat to Qwest for higher revenue enterprise services as well.”), 19452, para. 71 (“[W]e disagree with commenters who contend that forbearing from application of unbundling obligations to Qwest will result in a duopoly. In the present context, we believe that the facilities-based competition between Qwest and Cox, in addition to the actual and potential competition from established competitors which can rely on the wholesale access rights and other rights they have under sections 251(c) and section 271 from which we do not forbear, minimizes the risk of duopoly and of coordinated behavior or other anticompetitive conduct in this market. We note that the Commission previously has rejected arguments ‘that a fully competitive wholesale market is a mandatory precursor to a finding that section 10(a)(1) is satisfied.’”); see also *Qwest Corp. v. FCC*, 689 F.3d 1214, 1232 (10th Cir. 2012) (accepting the Commission’s view of a cable provider as a competitor in the provision of special access services).

¹⁵⁶ See *BDS Order*, 32 FCC Rcd at 3461, para. 2 (“Cable providers have also emerged as formidable competitors in this market. Cable business data services are reported to have grown at approximately 20 percent annually for the past several years and, increasingly, they have emphasized Internet access and managed services, which directly compete with the products being offered by the incumbent and other competitive LECs.”); see also *id.* at 3473-74,

(continued....)

Cable providers now offer robust enterprise-grade business services that were not widely available in 2004, as found by the Commission in the *BDS Order*,¹⁵⁷ including for multi-regional customers with low to medium bandwidth needs who still require enterprise-grade features.¹⁵⁸ The Commission previously also found that 5G networks “have the potential to represent a significant additional source of competition for the provision of business data services.”¹⁵⁹ And the BDS marketplace has only become more competitive in the seven years since the data collected in the 2015 Data Collection.¹⁶⁰

37. We also reject commenter arguments concerning the *Triennial Review Remand Order*’s finding that the availability of UNEs at that time served to constrain business data service pricing (such services were called special access services at the time).¹⁶¹ Today, the widespread intermodal competition and entry for enterprise services constrains pricing, making “synthetic” UNE-based competition unnecessary, particularly as the continued obligation to provide UNEs in Competitive Counties could reduce investment incentives for packet-based services.¹⁶² We reiterate that the 1996 Act’s market-opening provisions were intended to foster competition, not support specific competitors or business models.¹⁶³ We find the evidence of facilities-based competition for products and services here to be

paras. 27-29, 3488, para. 62, 3490-91, para. 68; *BDS Remand Order*, 34 FCC Rcd at 5780, para. 26 (“Cable now competes for the full range of BDS In recent years, cable operators have invested billions of dollars in their hybrid fiber coax (HFC) networks which are now available in most areas where there is BDS demand and which can be repurposed to provide various levels of BDS with only incremental investment.”).

¹⁵⁷ See, e.g., *BDS Order*, 32 FCC Rcd at 3461, para. 2 (“Cable business data services are reported to have grown at approximately 20 percent annually for the past several years and, increasingly, they have emphasized Internet access and managed services, which directly compete with the products being offered by the incumbent and other competitive LECs.”), 3485, para. 55 (cable providers “now offer over fiber carrier-grade reliability, scalability, and quality of service functionality to compete for the largest enterprise customers across the country and also offer Carrier Ethernet services with symmetrical speeds up to 10 Mbps over their within-footprint near ubiquitous DOCSIS 3.0 EoHFC [ethernet over hybrid-fiber-coax] networks”).

¹⁵⁸ See, e.g., *id.* at 3473, para. 28.

¹⁵⁹ See, e.g., *id.* at 3479, para. 38.

¹⁶⁰ See, e.g., USTelecom Comments at 12 (noting that “the number of BDS Competitive Counties and Study Areas is growing”); AT&T Reply at 10 (noting that “the *BDS Order* already reflects a conservative approach toward estimating competition, given that it largely reflects competition on the ground as of the end of 2013 and does not account for later developments, such as hybrid fiber-coaxial (“HFC”) networks” and that “[c]ompetition has also become more diverse and intensified since then”); CenturyLink Reply at 15.

¹⁶¹ TPx Comments at 27-28 (citing *Triennial Review Remand Order*, 20 FCC Rcd at 2574-75, para. 65).

¹⁶² See *USTA I*, 290 F.3d at 424 (noting that unbundling may create only “synthetic competition” without a proper consideration of investment incentives).

¹⁶³ See *USTA II*, 359 F.3d at 582 (in the context of upholding the Commission’s decision not to unbundle the broadband capabilities of hybrid loops, stating “even if all CLECs were driven from the broadband market, mass market consumers will still have the benefits of competition between cable providers and ILECs”); *BDS Order*, 32 FCC Rcd at 3583, para. 290 (“[B]ut [o]ur statutory duty is to protect efficient competition, not competitors.”) (quoting *Bell Atlantic Mobile Systems, Inc. and NYNEX Mobile Communications Company*, Memorandum Opinion and Order, 12 FCC Rcd 22280, 22288, para. 16 (1997)); *Triennial Review Remand Order*, 20 FCC Rcd at 2548, para. 26 (“In analyzing entry from the perspective of the reasonably efficient competitor, we do not attach weight to the individualized circumstances of the actual requesting carrier.”); *Triennial Review Order*, 18 FCC Rcd at 17056-57, para. 115 (“We will not, as some commenters urge, evaluate whether individual requesting carriers or carriers that pursue a particular business strategy are impaired without access to UNEs. We recognize that section 251(d)(2) refers to “the telecommunications carrier seeking access,” but such a subjective, individualized approach could give some carriers access to elements but not others, and could reward those carriers that are less efficient or whose business plans simply call for greater reliance on UNEs. Providing UNEs to carriers with more limited business strategies would also disregard the availability of scale and scope economies gained by providing multiple services to large groups of customers. Thus, an entrant is not impaired if it could serve the market in an economic fashion

(continued....)

sufficient to demonstrate that reasonably efficient competitors have the ability to deploy their own services without the use of UNEs. While certain competitive LEC commenters may wish to continue relying on UNE DS1 and DS3 Loops for their business models, this does not mean that a reasonably efficient competitor is impaired without access to those UNEs. Indeed, the business data services on which these commenters rely are now subject to competition from other business data services, including through cable deployment that developed without the reliance on UNEs,¹⁶⁴ an indication that there is no longer impairment.

38. We are further unpersuaded by commenter assertions that the findings in the *BDS Order* are flawed because they are based on Form 477 data, which have recently been the subject of challenges regarding their accuracy.¹⁶⁵ As the Commission made clear in the *BDS Order*, its findings were not based solely on Form 477 data. Rather, its findings were based largely on the 2015 Data Collection (with respect to traditional competitive LECs). The Commission used the Form 477 data to supplement the 2015 Data Collection with respect to cable providers,¹⁶⁶ which added only an additional 0.5% of all competitive counties and county equivalents.¹⁶⁷

39. *Forbearance Analysis.* Independent of our finding of non-impairment for UNE DS1 and DS3 Loops, we find that the forbearance criteria are met for UNE DS1 and DS3 Loop requirements in the same geographical areas—i.e., the Competitive Counties. In doing so, we have the flexibility to conduct our forbearance analysis based on the specific circumstances at issue.¹⁶⁸ Although we forbear from our UNE DS1 and DS3 Loop requirements in the Competitive Counties, we conclude that competitive LECs will be able to obtain DS1 and DS3 services as business data services or through section 251(b)(1) resale. And because the marketplace for DS1 and DS3 BDS channel terminations is competitive, the marketplace will discipline the prices of those services.

40. *Section 10(a)(1).* We conclude that enforcement of UNE DS1 and DS3 Loop obligations is not necessary to ensure just and reasonable rates. To the extent competitive LECs seek to continue purchasing DS1 and DS3 services, they are able to do so through commercial offerings. The Commission found in the *BDS Order* that market pressure from competitive alternatives, including packet-based services, will ensure reasonable prices.¹⁶⁹ Thus, the existence of competitive alternatives already available or that could economically be made available will ensure reasonable prices and no harm to consumers.¹⁷⁰ Indeed, we find that competition will more effectively ensure just and reasonable rates more effectively than maintenance of these UNE requirements.¹⁷¹ Accordingly, although these UNE obligations may have served to constrain DS1 and DS3 prices at reasonable levels 16 years ago, they no longer serve that purpose.¹⁷²

using its own facilities, considering the range of customers that could reasonably be served and the services that could reasonably be provided with those facilities.” (Emphasis in original.)).

¹⁶⁴ See, e.g., AT&T Comments at 19-20; CenturyLink Comments at 8; AT&T Reply at 15.

¹⁶⁵ See, e.g., INCOMPAS/ NWTa Comments at 3, 6, 8.

¹⁶⁶ *BDS Order*, 32 FCC Rcd at 3503, para. 97.

¹⁶⁷ *Id.* at 3526, para. 142.

¹⁶⁸ *Earthlink v. FCC*, 462 F.3d at 8.

¹⁶⁹ *BDS Order*, 32 FCC Rcd at 3467-68, paras. 13-14, 3494, para. 75, 3498, para. 83, 3505-06, para. 102.

¹⁷⁰ See, e.g., AT&T Reply at 10 (“The *BDS Order*’s findings turn on whether at least one CLEC has either *already* deployed competitive facilities *or* whether the CLEC could economically extend those facilities to other relevant locations. The price discipline, therefore, stems directly from the fact that CLECs have either already overcome, or could readily overcome, any barriers to entry that might have otherwise existed.”).

¹⁷¹ See *UNE Transport Forbearance Order*, 34 FCC Rcd at 5796, para. 62.

¹⁷² See *Triennial Review Remand Order*, 20 FCC Rcd at 2574, paras. 65; see also TPx Comments at 28.

41. *Section 10(a)(2)*. We find that the evolving marketplace and the statutory and regulatory safeguards that work to ensure just and reasonable rates also ensure that consumers will not be harmed by forbearance from enforcement of the UNE DS1 and DS3 Loops obligations. And as with ensuring just and reasonable rates, we find that competition will better protect consumers—in this instance, enterprise customers—from harm than continued enforcement of these outdated unbundling obligations.¹⁷³ Moreover, absent the availability of UNE DS1 or DS3 Loops, competitors will still be able to purchase DS1 and DS3 end-user channel terminations as business data services via commercial agreements or pursuant to section 251(b)(1) resale,¹⁷⁴ albeit at a higher price.¹⁷⁵ Such higher prices, resulting from marketplace dynamics rather than regulatory mandates, will serve to encourage end-user customers to migrate to next-generation services, thus helping to advance Congress’s goal as stated in section 706.¹⁷⁶ The rules adopted in 2004 and still in force today placed limits on UNE DS1 and DS3 Loop availability, both by wire center characteristics and by the numerical cap.¹⁷⁷ Competitors, including incumbent LECs outside of their incumbent territories, already use DS1 and DS3 BDS end-user channel terminations to compete,¹⁷⁸ including facilities purchased from other competitive LECs and from cable providers.¹⁷⁹ And DS1 and DS3 end-user channel terminations are increasingly becoming obsolete in light of the pressure for applications requiring increasing bandwidth.¹⁸⁰ Indeed, the Commission found in the *BDS Order* that “use and availability of UNEs is diminishing.”¹⁸¹

42. *Section 10(a)(3)*. Finally, we find that forbearing from the UNE DS1 and DS3 Loop obligations in Competitive Counties is in the public interest as it promotes the policy of ensuring the deployment of next-generation networks and services. The Commission has found that “[p]acket-based services represent the future of business data services” and “will lead to greater returns on investment and in turn, greater incentives for facilities-based entry into the business data services market.”¹⁸² Continuing to enable reliance on legacy lower-speed technologies unnecessarily reduces incentives and thus slows this deployment in the face of competitive alternatives as well as commercially available DS1 and DS3 products at market-based prices. We find that the benefit of encouraging the deployment of advanced

¹⁷³ See *UNE Transport Forbearance Order*, 34 FCC Rcd at 5796, para. 62.

¹⁷⁴ 47 U.S.C. § 251(b)(1); see also USTelecom Comments at 10-11; Verizon Comments at 9; CenturyLink Reply at 11.

¹⁷⁵ *BDS Order*, 32 FCC Rcd at 3476, para. 33.

¹⁷⁶ See *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518, para. 28 (“[R]egulations that subsidize end-user customers to remain on legacy services and technologies run counter to the Commission’s goal of facilitating technology transitions to the long-term benefit of all consumers. As end users transition from TDM to new technologies and services as a result of the forbearance we grant today, they will experience the benefits the Commission has recognized as flowing from that transition. These include not only the benefits from the technologies themselves but also from the vibrant competition associated with next-generation [] services.”).

¹⁷⁷ See *Triennial Review Remand Order*, 20 FCC Rcd at 2631, para. 177, 2633, para. 181; 47 CFR §§ 51.319(a)(3) and (a)(4).

¹⁷⁸ See, e.g., CenturyLink Reply at 11; see also *Qwest Omaha Order*, 20 FCC Rcd at 19449, para. 68 (finding that “with regard to the enterprise market, Qwest has provided evidence that a number of carriers have had success competing for enterprise services using DS1 and DS3 special access channel terminations obtained from Qwest”).

¹⁷⁹ See, e.g., CenturyLink Reply at 11.

¹⁸⁰ See *BDS Order*, 32 FCC Rcd at 3461, para. 3, 3503, para. 96; *RoR BDS Order*, 33 FCC Rcd at 10404, para. 2.

¹⁸¹ *BDS Order*, 32 FCC Rcd at 3476, para. 32.

¹⁸² *Id.* at 3498, para. 83.

telecommunications capabilities and next-generation networks outweighs any loss of competitors in the market as long as some level of competition remains.¹⁸³

43. *UNE DS1/DS3 Loops in Non-Competitive and Grandfathered Counties.* We decline to extend our DS1 and DS3 loop unbundling relief to non-competitive and grandfathered counties, consistent with our proposal in the *Notice*.¹⁸⁴ A number of incumbent LEC commenters take the position that we should eliminate unbundling obligations for DS1 and DS3 loops in non-competitive counties as well, arguing that the existence of continued price cap regulation in those counties obviates the need for UNE DS1 and DS3 Loops.¹⁸⁵ However, the fact that price cap regulation continues in these counties does not demonstrate that either the non-impairment or forbearance standard has been met. The Commission's findings in the *BDS Order* about actual and potential competition in these areas indicate that there is insufficient evidence to conclude that competition in the enterprise market currently exists or is likely to exist in the near future without the use of UNEs, and the continued existence of price cap regulation does not undermine those findings.¹⁸⁶ Nor is there sufficient evidence in this proceeding to conclude that reasonably efficient competitors could enter in these areas without the use of UNE DS1 and DS3 Loops. And UNE DS1 and DS3 requirements in these locations continue to be necessary for the protection of consumers and for the public interest, based on the limited degree of competition found in those areas in the *BDS Order*.¹⁸⁷

44. We also decline to eliminate UNE DS1 and DS3 requirements in grandfathered counties, as one commenter requests.¹⁸⁸ The *BDS Order* did not find these counties competitive based on the Competitive Market Test, but rather refrained from imposing new price cap regulation because they were previously granted Phase II pricing flexibility. In the *BDS Order*, the Commission determined not to reimpose price cap regulation in these counties because it favored a "conservative" approach to avoid regulatory disruption, rather than on other considerations, such as the underlying conditions when those areas were granted Phase II pricing flexibility.¹⁸⁹ The interest in a conservative approach to regulatory disruption weighs in favor of retaining UNE DS1 and DS3 Loops in the grandfathered counties, as those UNEs are currently available in these locations and were not affected by Phase II pricing flexibility.

45. *No DS1 Residential Exemption.* In the *Notice*, we proposed exempting from any non-impairment findings UNE DS1 Loops used for providing mass market broadband in rural census blocks of Competitive Counties.¹⁹⁰ We decline to adopt such an exemption. The record in this proceeding does not support such an exemption, and we find that the burdens to incumbent LECs of administering any such exemption outweigh any benefits.¹⁹¹ The number of existing UNE DS1 Loops in rural census blocks of Competitive Counties is exceedingly small in the first place,¹⁹² and the subset of such loops used for

¹⁸³ See *id.* at 3510, para. 117, 3514-15, paras. 120-21 (finding that a single wireline competitor has a "substantial competitive effect.").

¹⁸⁴ *UNE/Resale Notice*, 34 FCC Rcd at 11302, para. 27 & n. 108. The grandfathered counties appear at the end of the list of Competitive Counties found at <https://docs.fcc.gov/public/attachments/DOC-344863A1.pdf>.

¹⁸⁵ See, e.g., AT&T Reply at 11-12; CenturyLink Reply at 39, 43; Frontier Reply at 8-9.

¹⁸⁶ See *BDS Order*, 32 FCC Rcd at 3505, para. 101.

¹⁸⁷ See *id.* at 3537-38, paras. 178-79.

¹⁸⁸ See AT&T Comments at 10 n.23.

¹⁸⁹ See *BDS Order*, 32 FCC Rcd at 3520, para. 131.

¹⁹⁰ See *UNE/Resale Notice*, 34 FCC Rcd at 11304-05, para. 32.

¹⁹¹ See, e.g., AT&T Comments at 15-18; Verizon Comments at 13-15; CenturyLink Reply at 41.

¹⁹² See, e.g., AT&T Comments at 16 (noting that fewer than 5% of the UNE DS1 Loops it sells are located in rural census blocks within Competitive Counties); CenturyLink Comments at 41 (stating that only 5% of the UNE DS1 Loops it currently sells in Competitive Counties are in rural areas); Verizon Comments at 14. Two commenters

(continued....)

residential purposes is orders of magnitudes smaller.¹⁹³ This is not surprising given that competitive LECs use UNE DS1 and DS3 Loops almost exclusively to provision service to enterprise customers. Moreover, to administer the proposed exemption on a going forward basis, incumbent LECs would be required to make costly modifications to their processes, which they would then need to update and monitor.¹⁹⁴ Some incumbent LECs state they would also have to manually validate whether each new address, of which they receive hundreds daily, qualified for the exemption.¹⁹⁵ One incumbent LEC commenter describes in detail the system changes necessary for a carrier to implement such an exemption and the substantial cost involved in implementing those changes.¹⁹⁶ Indeed, the cost per provider for implementing such changes could be “at least hundreds of thousands of dollars.”¹⁹⁷ While INCOMPAS and NWTa point to one competitive LEC’s use of UNE DS1 Loops to serve some residential customers based upon filings made in the 2018 USTelecom forbearance proceeding,¹⁹⁸ neither this competitive LEC nor any other individual competitive LEC indicated any such use in their filings in this proceeding or supported such an exemption.¹⁹⁹ Because of the negligible benefits and significant costs, we decline to provide a residential DS1 exemption.

46. *Transition Period.* In the *Notice*, we proposed a uniform transition period for UNE DS1 and DS3 Loops that would provide a 36-month transition period for existing UNE DS1 and DS3 Loops without a period for new orders.²⁰⁰ Based on the record, we find that different transition plans for UNE DS1s and UNE DS3 Loops are warranted. Instead, for UNE DS1 Loop obligations, we adopt a two-part transition of 24 months for new orders and 42 months for existing UNE DS1 Loops. For existing UNE

proposed expanding the proposed rural exemption to include businesses. See INCOMPAS/NWTa Reply at 31, 33; NASUCA Reply at 4. We find that the small number of these UNEs used in rural areas does not warrant such treatment, particularly because the *BDS Order* found these specific areas to be competitive for DS1 and DS3 channel terminations.

¹⁹³ According to AT&T, fewer than one percent of the UNE DS1 Loops it sells in rural census blocks within Competitive Counties serve residential addresses. AT&T Comments at 16; AT&T Reply at 19; see also Verizon Comments at 14 (stating that less than 0.1% of the UNE DS1 and DS3 Loops it sold as of January 2019 “appear to be even possibly used for residential customers”); CenturyLink Comments at 41 (stating that only 5% of the UNE DS1 Loops it currently sells in Competitive Counties are in rural areas, with 99% of the UNE DS1 Loops it currently sells in rural areas of Competitive Counties terminate at known business addresses).

¹⁹⁴ See, e.g., Verizon Comments at 14; AT&T Comments at 6-17; Verizon Reply at 7; AT&T Reply at 20; Letter from Frederick Moacdieh, Exec. Director, Fed. Reg. & Legal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308, at 6 (June 4, 2020) (Verizon June 4, 2020 *Ex Parte* Letter).

¹⁹⁵ See, e.g., Verizon Reply at 7.

¹⁹⁶ For example, Verizon describes the changes it would have to implement in order to accommodate a rural residential DS1 exemption, “at a minimum”: (1) “Create a new “yes/no” field in its provisioning and inventory systems to determine whether each individual end user address in Verizon’s territory (millions of addresses) is located in census blocks subject to relief . . . [and] constantly update this data, including to incorporate the hundreds of new addresses added on a daily basis;” (2) “Build intelligence into the ordering system to limit the availability of the [DS1] UNE loops to only census blocks not subject to relief; (3) “Modify billing systems if required to bill the UNE loops subject to relief at a different rate from those loops not subject to relief (e.g., a different rate during a transition period);” and (4) “validating the residential and broadband classification of the circuit.” Verizon June 4, 2020 *Ex Parte* Letter at 6.

¹⁹⁷ Verizon June 4, 2020 *Ex Parte* Letter at 6.

¹⁹⁸ See INCOMPAS/NWTa Reply at 31-32.

¹⁹⁹ See generally Sonic Comments. INCOMPAS and NWTa also pointed to Virginia Global, but that citation suffers from the same infirmities as the citation to Sonic. See INCOMPAS/NWTa Reply at 31-32. While INCOMPAS initially called for expanding the proposed exemption to enterprise customers, it was a party to the Compromise Proposal, which did not provide a DS1 exemption for residential or enterprise customers in the Competitive Counties.

²⁰⁰ *UNE/Resale Notice*, 34 FCC Rcd at 11325-26, para. 97.

DS3 Loops, consistent with our proposal in the *Notice*, we adopt a single transition period of 36 months with no additional period for placing new orders.²⁰¹

47. Our decision to adopt modified and different transition timeframes for these enterprise UNE loops is based on both record evidence and the Compromise Proposal between and among a majority of incumbent and competitive LEC stakeholders and participants in this proceeding,²⁰² each of which individually would have preferred a shorter or longer transition period having different accompanying conditions than what their compromise proposal suggests.²⁰³ We find the transition periods contained in the Compromise Proposal to be reasonable and in the public interest, based both on the record in this proceeding and because the proposal has been advanced by most of the major buyers and sellers of these UNEs. We therefore adopt the following transition timeframes for eliminating the availability of UNE DS1 and DS3 Loops.²⁰⁴

48. First, we permit competitive LECs to order new UNE DS1 Loops for 24 months after the effective date of this order.²⁰⁵ This timeframe will enable competitive LECs to continue to execute short-term business plans and honor contractual obligations with new or existing customers, including small businesses, while they determine which alternative voice service option will best serve their customers’

²⁰¹ Carriers may not convert existing special access circuits to UNEs after the effective date of this Order. See INCOMPAS-USTelecom Compromise Proposal at 3.

²⁰² *Id.*

²⁰³ See, e.g., USTelecom Comments at 65-66 (proposing a transition period of 18 months or, in the alternative, ending no later than the transition periods adopted in WC Docket No. 18-141); AT&T Comments at 33-34 (proposing to align any transition period in this proceeding with the transition periods adopted in WC Docket No. 18-141); Verizon Comments at 26 (proposing a transition period concurrent with the transition periods adopted in WC Docket No. 18-141); CenturyLink Comments at 64-65 (proposing a transition period of 18 months or, in the alternative, ending no later than August 2, 2022); Puerto Rico Tel. Co. Comments at 23-24 (proposing a transition period of less than three years); Frontier Reply at 14 (proposing a transition period ending no later than August 2, 2022); INCOMPAS/NWTA Reply at 42 (proposing a seven-year transition period). The Commission has long found compromise proposals negotiated by interested parties representing different interests to be reasonable and to serve the public interest. See, e.g., *Access Charge Reform*, CC Docket No. 96-262 *et al.*, Sixth Report and Order, 15 FCC Rcd 12962, para. 48 (2000) (finding that “the fact that the resolution of these issues was achieved through a joint proposal among a cross-section of LECs and IXC provides us with some indication that the proposal is within a zone of reasonableness”), Order on Remand, 18 FCC Rcd 14976, 14996 (“As the Commission noted in the CALLS Order, the fact that both net payers and net recipients of universal service support agreed to the \$650 million amount as members of CALLS also indicates strongly that the CALLS plan appropriately balanced the various and divergent interests implicated in access charge reform.”); *Carriage of Digital Television Broadcast Signals: Amendment to Part 76 of the Commission’s Rules*, Sixth Report and Order, 30 FCC Rcd 6653, 6655, para. 4 (2015) (finding that “it would serve the public interest to adopt the joint proposal put forth by ACA and NAB” given the “differing views” expressed by the organizations regarding various issues); *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Fifth Memorandum Opinion and Order and Third Further Notice of Proposed Rulemaking, 24 FCC Rcd 12258, 12258, para. 2 (2009) (adopting a “compromise proposal” that “balance[d] the concerns of both educators and commercial lessees”). We acknowledge, however, the need to base our findings on an independent rationale. See *Texas Office of Public Utility Counsel v. FCC*, 265 F.3d 313, 328 (5th Cir. 2001).

²⁰⁴ We also reject Verizon’s assertion that we should modify the “provision-then-dispute” process adopted in the *Triennial Review Remand Order* as we significantly reduce the availability of UNEs in this Order only to areas where they remain necessary, and there is no evidence in the record to support changing the process for obtaining UNEs in the limited areas where they remain. See Verizon Comments at 26 (citing *Triennial Review Remand Order*, 20 FCC Rcd at 2665-66, para. 234).

²⁰⁵ See INCOMPAS-USTelecom Compromise Proposal at 3 (agreeing on 24-month period for new orders of UNE DS1 Loops).

needs.²⁰⁶ Second, we adopt a 42-month grandfathering period for UNE DS1 Loops for all competitive LEC customers.²⁰⁷ We adopt a 36-month grandfathering period for UNE DS3 Loops for all competitive LEC customers, with no period included for new orders.²⁰⁸ The record demonstrates that demand for UNE DS3 Loops is *de minimis*, justifying a shorter grandfathering period and no transition period for new orders, as compared to UNE DS1 Loops.²⁰⁹

49. We reject proposals for either a longer transition period²¹⁰ or a shorter transition period²¹¹ and find the Compromise Proposal to be reasonable. We find that these transition periods will provide competitive LECs with sufficient time to make alternative arrangements, particularly given the availability of DS1 and DS3 BDS channel terminations as discussed above, without continuing to impose these burdensome and costly requirements on incumbent LECs for longer than necessary.

50. The 42-month transition timeframe within which all UNE DS1 Loops (including any new UNE DS1 Loops ordered during the first 24 months) and the 36-month transition timeframe within which all UNE DS3 Loops must be transitioned to alternative arrangements will commence on the effective date of this order. These transition periods should provide more than enough time for competitive LECs and their customers to transition to alternative voice and broadband service arrangements as evidenced by the willingness of the major competitive LEC trade association and the majority of its members to support this timeframe.²¹² Moreover, the fact that the major incumbent LECs currently subject to these unbundling obligations have agreed to support this transition timeframe suggests the burdens they claim

²⁰⁶ See *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61; *BDS Order*, 32 FCC Rcd at 3533, para. 167.

²⁰⁷ See INCOMPAS-USTelecom Compromise Proposal at 3 (agreeing on 42-month grandfathering period for UNE DS1 Loops).

²⁰⁸ See *id.* (agreeing on 36-month grandfathering period and no new orders for UNE DS3 Loops).

²⁰⁹ See, e.g., CenturyLink Comments at n. 136 (stating that CenturyLink only sells 13 DS3 UNE Loops in its incumbent LEC territory); USTelecom Reply at ii, 17-18; Puerto Rico Tel. Co. Comments at 7; AT&T Reply at 13; Declaration of Douglas Denney, Allstream ¶ 16 (filed Mar. 20, 2020) (Allstream Mar. 20, 2020 Decl.).

²¹⁰ See, e.g., INCOMPAS/NWTA Comments at 18 (advocating for a 7-year transition period); TPx Reply at 30 (advocating for a transition period of no less than three years).

²¹¹ See, e.g., USTelecom Comments at 65-67 (advocating for a transition period of no more than 18 months and no new orders); CenturyLink Comments at 64-65 (advocating for a transition period of no more than 18 months); AT&T Reply at 38 (advocating for a transition period ending no later than August 2, 2022); CenturyLink Reply (advocating for a transition period of no more than 18 months or one ending no later than August 2, 2022); Frontier Reply at 14 AT&T Reply at 38 (advocating for a transition period ending no later than August 2, 2022).

²¹² See generally INCOMPAS-USTelecom Compromise Proposal; see also *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61; *BDS Order*, 32 FCC Rcd at 3533, para. 167. Competitive LECs that have provided record information about the length of their customer contracts have typically referenced contract lengths of a minimum of three years with business or government customers. See, e.g., TPx Comments at 34; Allstream Mar. 20, 2020 Decl. ¶ 16; see also Letter from Thomas A. Jones, Willkie Farr & Gallagher, Counsel for Granite Telecommunications et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 4 (filed June 14, 2019) (Granite et al. June 14, 2019 *Ex Parte* Letter); Letter from Thomas A. Jones, Willkie Farr & Gallagher, Counsel for Granite Telecommunications et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 2 (filed July 18, 2019) (Granite et al. July 19, 2019 *Ex Parte* Letter); Letter from 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 June 27, 2019) (TPx June 27, 2019 *Ex Parte* Letter); Letter from H. Edward Wynn, Exec. Chairman, and Christopher Surdenick, CEO, Call One Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 2-3 (filed July 10, 2019) (Call One July 10, 2019 *Ex Parte* Letter) (both customer and supplier contracts). To the extent competitive LECs have entered into longer-term contracts with their customers without securing long-term contracts with their suppliers, they have done so at their own risk like any other business does, and we see no reasonable basis for accommodating that risk.

to incur as a result of continuing to provide such UNEs during the transition are outweighed by the benefit of a compromised transition proposal.

51. In addition, during the relevant transition periods for any competitive LEC customer, any UNE DS1 and DS3 Loops that a competitive LEC leases as of the effective date of this order shall be available for lease from the incumbent LEC at regulated UNE rates.²¹³ Of course, the transition mechanism we adopt is simply a default process, and competitive LECs and price cap LECs remain free to negotiate different arrangements superseding this transition period and replacing UNE DS1 and DS3 Loop arrangements with negotiated commercial arrangements at any earlier time. We find this approach will ensure an orderly transition for end-user customers of affected competitive LECs by mitigating any immediate rate changes that could otherwise be experienced by these end users if current rates for UNE DS1 and DS3 Loops were immediately eliminated.²¹⁴ The transition timeframes we adopt will also work to ensure that consumers do not experience any undue service disruption as a result.

2. UNE DS0 Loops and Associated UNE Copper Subloops

52. We proposed in the *Notice* to find that competitive LECs are no longer impaired in urban census blocks without unbundled access to DS0 loops.²¹⁵ Based on the record in this proceeding, as well as Commission data, we adopt a modified version of this proposal and find that unbundled access to DS0 loops and their associated copper subloops in urbanized areas (areas of 50,000 or more people), the most densely populated areas of the country,²¹⁶ is unwarranted because competitive LECs are no longer impaired without unbundled access to these UNEs.²¹⁷ The record overwhelmingly supports this conclusion. We decline to extend unbundling relief in census blocks in rural areas and urban clusters.²¹⁸

53. Section 51.319(a)(1) of our rules requires incumbent LECs to make available on an unbundled basis digital copper loops and two-wire and four-wire copper loops conditioned to transmit

²¹³ Such rates are established either through negotiated interconnection agreements or through state-commission-arbitrated rates applying certain Commission-developed pricing formulas. See 47 U.S.C. §§ 251, 252; 47 CFR § 51.501 *et seq.* Our forbearance action is not intended to upset pre-existing interconnection agreements or other contractual arrangements that may currently exist nor pre-existing state-commission-arbitrated rates during the transition period (including any already-adopted state commission scheduled changes in UNE rates), which should quell concerns of those fearing near-term price increases for UNE DS1 and DS3 Loops resulting from this Order. See *Triennial Review Remand Order*, 20 FCC Rcd at 2613-14, para. 145; see also TEXALTEL Reply, WC Docket No. 18-141, at 9-10 (rec. Sept. 5, 2018) (TEXALTEL Sept. 5, 2018 Reply); TPx Opposition, WC Docket No. 18-141, at 27 (rec. Aug. 6, 2018) (TPx Aug. 6, 2018 Opposition); Letter from Jonathan Banks, Sr. Vice Pres., Law & Policy, USTelecom, et al., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 1 (filed June 21, 2018) (USTelecom June 21, 2018 *Ex Parte* Letter); Letter from John T. Nakahata, Harris, Wiltshire and Grannis LLP, Counsel for INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 2 (filed June 28, 2019) (INCOMPAS June 28, 2019 *Ex Parte* Letter).

²¹⁴ See *Triennial Review Remand Order*, 20 FCC Rcd at 2613-14, para. 145.

²¹⁵ *UNE/Resale Notice*, 34 FCC Rcd at 11306, para. 38.

²¹⁶ The Census Bureau divides the country into approximately eleven million census blocks, the smallest unit of geography for which the Census Bureau provides demographic data. See What are census blocks, Katy Rossiter, U.S. Census Bureau, <https://www.census.gov/newsroom/blogs/random-samplings/2011/07/what-are-census-blocks.html>. Census blocks are classified as being located in an urbanized area (where populations are over 50,000) or an urban cluster (where populations range from 2,500-50,000). Locations with fewer than 2,500 people are considered rural. See 2010 Census Urban Area FAQs, https://www2.census.gov/geo/pdfs/reference/ua/2010ua_faqs.pdf. As of the 2010 Census, 71.2% of Americans lived in urbanized areas, 9.5% lived in urban clusters, and 19.3% lived in rural areas. See 2010 Census Urban and Rural Classification and Urban Area Criteria, <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html>.

²¹⁷ See *infra* Section III.F.

²¹⁸ See *id.*

digital signals (collectively, DS0s or UNE DS0 Loops).²¹⁹ UNE DS0 Loops are used predominantly to serve residential and small and medium businesses.²²⁰ UNE Copper Subloops are the portions of the copper DS0 loops that are used to connect certain end-user premises with local loops.²²¹

54. USTelecom, INCOMPAS, and most of their members participating in this proceeding agree that competitive LECs are no longer impaired without access to UNE DS0 Loops in urbanized areas.²²² We agree with this assessment. We also find that continued unbundling of those network elements in urbanized areas frustrates the goal of ensuring deployment of advanced communications capability. Independently, we conclude that forbearance from the UNE DS0 Loop obligation is warranted in urbanized areas. Our findings of non-impairment and forbearance from UNE DS0 Loops and UNE Copper Subloops requirements do not apply to UNE DS0 Loops and associated UNE Copper Subloops in less densely populated urban clusters or rural areas where the record and Commission data do not provide sufficient evidence of entry by facilities-based competitors, intermodal or otherwise, without the use of UNE DS0 Loops.

55. *Background.* The current unbundling requirements for DS0 loops and copper subloops were adopted more than 17 years ago.²²³ At that time, the Commission found nationwide impairment without unbundled access to DS0 loops. In doing so, it noted that fiber deployment for the mass market was still in its infancy,²²⁴ wireless was not yet a suitable option for providing mass market broadband,²²⁵ and cable telephony had not developed sufficiently to be considered a substitute for traditional wireline telephony.²²⁶

56. In the past 17 years, the communications marketplace has dramatically changed. The most recent data at the time that the DS0 unbundling requirements were adopted showed that wireline switched access was the leading form of telecommunications, and incumbent LECs were the dominant providers of wireline switched access. It followed that unbundling requirements were focused on providing competitive LECs with the network elements, such as local loops, to provide wireline switched access in competition with incumbent LECs. The data available in early 2003 reported 187.5 million wireline switched access lines,²²⁷ with incumbent LECs providing approximately 167.5 million of those lines, about 88% of the total.²²⁸ Other forms of wireline voice lines, including interconnected VoIP, were so negligible that they were unreported. Over the last 17 years, wireline switched access lost its role as

²¹⁹ 47 CFR § 51.319(a)(1). We exclude from the purview of this term UNE Analog Loops, which are addressed separately below.

²²⁰ See, e.g., *Triennial Review Order*, 18 FCC Rcd at 17109, para. 209; Sonic Comments at 10; Socket Decl. ¶¶ 82-83; USTelecom Comments at 31.

²²¹ See 47 CFR § 51.319(b)(1); *Triennial Review Order*, 18 FCC Rcd 17184-85, paras. 343, 353 n. 1066.

²²² INCOMPAS-USTelecom Compromise Proposal at 2.

²²³ *Triennial Review Order*, 18 FCC Rcd at 17110-41, paras. 211-71 (DS0s/mass market loops); *id.* at 17122, para. 236 (subloops).

²²⁴ *Id.* at 17115, paras. 222.

²²⁵ *Id.* at 17120, para. 230.

²²⁶ *Id.* at 17118-19, para. 229.

²²⁷ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, Local Telephone Competition: Status as of December 31, 2002, Tbl. 1 (June 2003), <https://www.fcc.gov/general/local-telephone-competition-reports>. We refer to the data here as December 2002 data.

²²⁸ *Triennial Review Order*, 18 FCC Rcd at 17116, para. 224. Cable providers reported serving only 2% of all switched access lines (via coaxial cable) in the reported data available when the Commission adopted the *Triennial Review Order*. FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, Local Telephone Competition: Status as of December 31, 2002, Tbl. 5 (June 2003), <https://www.fcc.gov/general/local-telephone-competition-reports>.

the leading technology for telecommunications. The most recent data reported 38.4 million total wireline switched access lines, with incumbent LECs providing 29.9 million of those lines,²²⁹ less than one-fifth of the wireline switched access lines they provided in 2003.²³⁰ In the interim, interconnected VoIP went from being irrelevant and thus unreported until 2008, to the most recent data showing 69.1 million interconnected VoIP lines reported,²³¹ outnumbering wireline switched access lines from all providers. Wireline switched access lines now account for just 8% of all retail voice subscriptions across all technologies, and those provided by incumbent LECs are only about 39% of all wireline end-user subscriptions (both switched access and interconnected VoIP).²³² Overall, incumbent LECs serve over fixed lines only 9% of all voice subscriptions across all technologies.²³³ At the same time wireline switched access line counts were decreasing, wireless voice subscribership was increasing. December 2002 data reported 136.2 million mobile wireless subscribers.²³⁴ As of December 31, 2019, that number had nearly tripled, reaching 355.7 million.²³⁵ And according to the Centers for Disease Control, most adults live wireless-only households, having increased from 45% to 61.3% between 2014 and 2019 and accounting for more than 80% of Americans between the ages of 25 and 34 and 73% of Americans between the ages of 35 and 44.²³⁶

57. The change over 17 years has been even more dramatic for broadband. In 2003, the Commission defined advanced services as transmission speeds of more than 200 kbps both upstream and downstream, and found just over 20 million mass market advanced service lines in use.²³⁷ The

²²⁹ FCC Form 477 Local Voice Subscription Data, preliminary data as of December 31, 2019, Tbl. 1, Reference Lines 13 and 14; *see also* FCC, Office of Economics and Analytics, Industry Analysis Division, Voice Telephone Services: Status as of December 31, 2018, at 2, Fig. 1 (Mar. 2020), <https://www.fcc.gov/voice-telephone-services-report>.

²³⁰ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, Local Telephone Competition: Status as of December 31, 2002, Tbl. 5 (June 2003), <https://www.fcc.gov/general/local-telephone-competition-reports>.

²³¹ FCC Form 477 Local Voice Subscription Data, preliminary data as of December 31, 2019, Tbl. 1, Reference Line 22; *see also* FCC, Office of Economics and Analytics, Industry Analysis Division, Voice Telephone Services: Status as of December 31, 2018, at 5, Fig. 3 (Mar. 2020), <https://www.fcc.gov/voice-telephone-services-report>.

²³² FCC Form 477 Local Voice Subscription Data, preliminary data as of December 31, 2019, Tbl. 1, Reference Lines 1, 4, 5, and 13; *see also* FCC, Office of Economics and Analytics, Industry Analysis Division, Voice Telephone Services: Status as of December 31, 2018, at 2, Fig. 1 (Mar. 2020), <https://www.fcc.gov/voice-telephone-services-report>.

²³³ *See* FCC Form 477 Local Voice Subscription Data, preliminary data as of December 31, 2019, Tbl. 1, Reference Lines 1, 4, and 5.

²³⁴ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, Local Telephone Competition: Status as of December 31, 2002, Tbl. 13 (June 2003), <https://www.fcc.gov/general/local-telephone-competition-reports>.

²³⁵ FCC Form 477 Local Voice Subscription Data, preliminary data as of December 31, 2019, Tbl. 1, Reference Line 1; *see also* FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, Local Telephone Competition: Status as of December 31, 2002, Tbl. 1 (June 2003), <https://www.fcc.gov/general/local-telephone-competition-reports>.

²³⁶ *See 2018 Communications Marketplace Report et al.*, 33 FCC Rcd at 12569-70, para. 13; Stephen J. Blumberg, Ph.D., and Julian V. Luke, Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July-December 2019, Division of Health Interview Statistics, National Center for Health Statistics, Tbls. 1 and 2, <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless202009-508.pdf>; Stephen J. Blumberg, Ph.D., and Julian V. Luke, Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July-December 2014, Division of Health Interview Statistics, National Center for Health Statistics, Tbl. 1. <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201506.pdf>.

²³⁷ *Availability of Advanced Telecommunications Capability in the United States*, GN Docket No. 04-54Fourth Report to Congress, FCC 04-208, at 10 (2004) (*2004 Broadband Deployment Report*).

Commission now defines fixed broadband as speeds of at least 25/3 Mbps, and it was available to more than 96% of all Americans by the end of 2019.²³⁸ Further, more than 87% of Americans had access to fixed speeds of 250/25 Mbps by the end of 2019.²³⁹ Deployment of last-mile fiber loops, which was not widespread in 2003, has expanded extensively.²⁴⁰ Between 2014 and 2019, residential subscription to a fiber based broadband service more than doubled, increasing from 8.3 million to 16.7 million.²⁴¹ And mobile broadband, provided via LTE technology, which did not even exist in 2004, is now available in geographic areas covering virtually all Americans.²⁴² More than 96% of Americans now have access to both 25/3 Mbps terrestrial broadband and 5/1 Mbps Mobile LTE broadband.²⁴³

58. *Continuing Marketplace Changes.* Competition in the mass market communications space is likely to continue to grow, as barriers to entry have rapidly fallen for broadband providers using fixed wireless technology in densely populated areas.²⁴⁴ Industry analysts and incumbent wireline providers believe that 5G may allow wireless providers to capture a significant share of the residential broadband marketplace.²⁴⁵ T-Mobile committed, as a condition of its merger with Sprint, to roll out an

²³⁸ FCC Form 477 Broadband Deployment Data as of December 31, 2019. We exclude Barrier Communications Corporation's deployment data from our analysis because of inaccuracies and overstatements in that company's Form 477 filings. See *Barrier Communications Corp. d/b/a BarrierFree*, Notice of Apparent Liability for Forfeiture, FCC 20-123, at 1-2, para. 2 (Sept. 2, 2020); see also *2020 Broadband Deployment Report*, 35 FCC Rcd at 9003, para. 36; *2018 Communications Marketplace Report*, 33 FCC Rcd at 12689, Fig. G-1. While the Commission does not yet consider satellite broadband to be a substitute for wireline broadband, the Commission found that "[i]f we include satellite service in our estimate, the December 2018 data shows that fixed 25/3 Mbps service is deployed to nearly every American." *2020 Broadband Deployment Report*, 35 FCC Rcd at 9003, para. 36; see also *2018 Communications Marketplace Report*, 33 FCC Rcd at 12689, para. 249.

²³⁹ FCC Form 477 Broadband Deployment Data as of December 31, 2019; see also *2020 Broadband Deployment Report*, 35 FCC Rcd at 8987, para. 2.

²⁴⁰ See, e.g., *2020 Broadband Deployment Report*, 35 FCC Rcd at 8987, para. 2 ("In 2019 alone, fiber broadband networks became available to roughly 6.5 million additional unique homes, the largest one-year increase ever, with smaller providers accounting for 25% of these new fiber connections."); AT&T Comments at 20.

²⁴¹ FCC Form 477 data as of December 31, 2014 and as of December 31, 2019, Technology Code 50.

²⁴² *2020 Broadband Deployment Report*, 35 FCC Rcd at 9004, para. 37; *2018 Communications Marketplace Report*, 33 FCC Rcd at 12689, para. 250.

²⁴³ FCC Form 477 Broadband Deployment Data as of December 31, 2019; see also *2020 Broadband Deployment Report*, 35 FCC Rcd at 9005-06, para. 38.

²⁴⁴ See, e.g., R Street Institute Comments at 3; CenturyLink Reply at 5; Verizon Comments at 18 n.60 (citing to the *UNE/Resale Notice*, 34 FCC Rcd at 11311, para. 50).

²⁴⁵ AT&T Comments at 20-21; Comcast Corp., Annual Report (Form 10-K) at 10-20 (Dec. 31, 2019) (stating that "[w]ireless internet services, such as 4G and 5G wireless broadband services, satellite-delivered internet services and Wi-Fi networks, and devices such as smartphones, tablets, wireless data cards, and mobile and fixed wireless routers that connect to such services, also may compete with our highspeed internet services, particularly as wireless technology evolves"), available at <https://www.cmcsa.com/static-files/d3de7993-a16b-42bf-bebd-a45b938dcbfc>; Charter Communications, Annual Report (Form 10-K), at 10 (Dec. 31, 2019) ("Various mobile phone companies offer wireless Internet services delivered over networks which they continue to enhance to deliver faster speeds. AT&T, Verizon, Sprint Corporation ("Sprint") and T-Mobile US, Inc. ("T-Mobile") all began deploying fifth generation (5G) mobile services in 2019, although generally in limited geographies, with plans to expand 5G more broadly in 2020. In April 2018, Sprint and T-Mobile announced their intent to merge. If the transaction closes, the resulting company would be one of the nation's largest mobile carriers bringing increased competition with a stated intent of pursuing broad 5G network deployment and offering fixed wireless broadband service."), available at <https://www.sec.gov/Archives/edgar/data/1091667/000109166720000024/chtr12312019-10k.htm>; Comcast Corp., Annual Report (Form 10-K) at 10-11 (Dec. 31, 2018) (stating that 5G wireless broadband services "could negatively impact the demand for [Comcast's] high-speed internet services."), available at <https://www.sec.gov/Archives/edgar/data/902739/000116669119000005/cmcsa-12312018x10k.htm>; Altice USA,

(continued....)

in-home broadband service in millions of households, with a goal of serving the majority of zip codes by 2024.²⁴⁶ These 5G plans, and those of the other two national wireless providers, are most advanced in dense urbanized areas where the deployment business case is most compelling.²⁴⁷ Other providers, including Starry, are also deploying fixed wireless technologies to serve urban areas in different frequency bands.²⁴⁸ And wireless as an intermodal alternative to wireline voice and broadband service is only going to increase further as 5G deployment progresses, further pushing DSO loops into

Annual Report (Form 10-K), at 10-11, (“Our broadband services face competition from broadband communications companies’ [DSL], [FTTH] and wireless broadband offerings Current and future fixed and wireless Internet services, such as 4G, LTE and 5G (and variants) wireless broadband services and WiFi networks, and devices such as wireless data cards, tablets and smartphones, and mobile wireless routers that connect to such devices, may also compete with our broadband services both for in premises broadband service and mobile broadband. All major wireless carriers have started to offer unlimited data plans, which could, in some cases, become a substitute for the fixed broadband services we provide.”), available at <http://d18rn0p25nwr6d.cloudfront.net/CIK-0001702780/270833fe-3f17-4cd7-b6a4-bfaa40455731.pdf>; *5G FWA to Enable Wireless Broadband: Market Overview and Projections*, Microwave J. (Aug. 1, 2019), <https://www.microwavejournal.com/articles/32641-g-fwa-to-enable-wirelessbroadband-everywhere; see also Mike Dano, Is 5G fixed wireless getting ready for its comeback?>, available at https://www.lightreading.com/5g/is-5g-fixed-wireless-getting-ready-for-its-comeback/d/d-id/763866?_mc=RSS_LR_EDT (discussing new developments that may reinvigorate 5G fixed wireless deployment and noting Verizon’s plans to increase its 5G deployment).

²⁴⁶ See *Applications of T-Mobile US, Inc., and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations*, Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, 34 FCC Rcd 10578, 10700-01, para. 277 (2019) (*T-Mobile/Sprint Order*); see also *id.* at 10703, para. 283 (“New T-Mobile’s provision of wireless in-home broadband service could enable millions of homes to receive lower-cost or higher-quality service than they would otherwise enjoy.”); <https://www.t-mobile.com/isp>.

²⁴⁷ See AT&T Comments at 21; Verizon Comments at 18-19 (stating that they began to roll out a 5G in-home fixed broadband solution in October 2018, which has now been rolled out in five cities, and it has plans to expand to additional cities); Verizon Reply at 2; <https://www.verizon.com/5g/home/>; 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 Robuck, Tale of the tape: Verizon’s 5G Home vs. AT&T’s fiber-fed broadband service (Jul. 24, 2020), <https://www.fiercetelecom.com/telecom/tale-tape-verizon-s-5g-home-vs-at-t-s-fiber-fed-broadband-service>; 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>; 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”).

²⁴⁸ 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); Joan Engebretson, *Report Puts Competitors on Notice as Starry Fixed Wireless Sees 10% Subscriber Growth Per Month*, Telecompetitor, June 3, 2020 (describing MoffettNathanson Research report on Starry’s growth), <https://www.telecompetitor.com/report-puts-competitors-on-notice-as-starry-fixed-wireless-sees-10-subscriber-growth-per-month/>; Mike Dano, *Starry Eyes Single Family Homes*, Light Reading, Sept. 17, 2020, https://www.lightreading.com/services/starry-eyes-single-family-homes/d/d-id/764013?_mc=RSS_LR_EDT; 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”); <https://starry.com/internet>.

obsolescence.²⁴⁹ Cable providers have expanded their broadband networks beyond their current footprints to ready themselves for competition from forthcoming 5G services.²⁵⁰

59. *Impairment Analysis.* We find sufficient evidence of facilities-based competition and competitive entry in urbanized area census blocks without reliance on UNE DS0 Loops and UNE Copper Subloops to determine that competitive LECs in those locations are no longer impaired without access to those UNEs, and that policy considerations weigh against maintaining these requirements.²⁵¹ Our conclusion is based on three related findings. First, robust intermodal competition, particularly from cable providers, now exists in urbanized areas, meaning that in these areas, “the costs cognizable under the Act of unbundling that UNE outweigh the benefits of unbundling, even if some level of impairment might be present.”²⁵² Second, reasonably efficient competitors seeking to provide broadband and voice services in urbanized areas would use fixed wireless or other technologies, and not copper-based DS0 loops. Third, in light of this actual intermodal competition and potential competition from entering providers, continuing to require incumbent LECs to offer UNE DS0 Loops reduces incentives to invest and slows the transition to next-generation networks, in contravention of statutory goals we consider under section 251(d)(2) of the Act.

60. Intermodal competition in the form of cable competition alone is enough to establish the existence of sufficient competition even in the absence of UNEs.²⁵³ Nearly all households in urbanized areas (98%) live in census blocks served by cable broadband with speeds of at least 25/3 Mbps,²⁵⁴ and incumbent LECs have deployed broadband meeting this speed threshold in 73% of these areas.²⁵⁵ In addition, 84% of households in urbanized areas live in census blocks served by at least two 25/3 Mbps providers without the use of UNEs, and 90% of households live in census blocks served by at least two

²⁴⁹ See, e.g., CenturyLink Reply at 6 (“Consumers’ use of mobile wireless broadband services as a substitute for ILECs’ consumer broadband services, already significant now, will accelerate with the rollout of 5G, which will soon be available nationwide.”), n.12 (“Socket candidly acknowledges that, as 5G service is deployed, it “is likely to drastically outperform any servicing offering supported by xDSL-capable loops and likely will eliminate the demand for xDSL-capable loops.”); Socket Comments at 10; AT&T Comments at 21; Verizon Comments at 10.

²⁵⁰ See, e.g., Mike Farrell, Operators Put Their Foot(print) Down, (Aug. 17, 2020), available at <https://www.nexttv.com/features/operators-put-their-footprint-down>.

²⁵¹ See, e.g., CenturyLink Comments at 47-48; Verizon Comments at 16-21; cf. *Triennial Review Remand Order*, 18 FCC Rcd at 2586, para. 87 (explaining that the impairment inquiry considers indicia of actual and potential competition). Because UNE Copper Subloops are used to connect DS0 loops to end-user premises, our conclusions about UNE DS0 Loops apply equally to UNE Copper Subloops. See 47 CFR § 51.319(b)(1); *Triennial Review Order*, 18 FCC Rcd 17184-85, paras. 343, 353; INCOMPAS-USTelecom Compromise Proposal at 6 n.12. Because of the many competitive alternatives available to customers in urbanized areas, we find that elimination of these unbundling requirements will not impact the provision of 9-1-1 service. See NASUCA Reply at 7-8.

²⁵² *Triennial Review Remand Order*, 20 FCC Rcd at 2555-56, para. 37 (explaining that where intermodal competition “has evolved without access” to UNEs, the costs of unbundling outweigh any benefits).

²⁵³ See *USTA II*, 359 F.3d at 582 (in the context of the Commission’s decision in the *Triennial Review Order* to not require unbundling of the broadband capabilities of hybrid loops, stating “we agree with the Commission that robust intermodal competition from cable providers—the existence of which is supported by very strong record evidence, including cable’s maintenance of a broadband market share on the order of 60% [citation omitted] means that even if all CLECs were driven from the broadband market, mass market consumers will still have the benefits of competition between cable providers and ILECs”); *Triennial Review Remand Order*, 20 FCC Rcd at 2553-57, para. 36-39 (eliminating UNEs where the requesting carrier seeks to provide service in marketplaces that are sufficiently competitive without the use of unbundling).

²⁵⁴ Staff analysis of FCC Form 477 deployment data as of December 31, 2019.

²⁵⁵ *Id.* Incumbent LEC affiliation is determined at the holding company level and for all census block which the incumbent LEC’s study area overlaps the census block. We exclude a provider’s deployment if the provider is not an incumbent LEC and whose last mile connection is based upon a copper technology (i.e., FCC Form 477 Technology Codes 10, 11, 12, 20 and 30).

10/1 Mbps providers without the use of UNEs.²⁵⁶ Finally, because urbanized area census blocks are relatively small,²⁵⁷ to the extent that a facilities-based provider already serves one customer in a given census block, economies of scale are more likely to accrue to serve additional customers in that census block, as the Commission long ago noted.²⁵⁸

61. Moreover, it is our predictive judgment, supported by the record, that reasonably efficient competitors seeking to enter the fixed voice and broadband marketplace in urbanized areas for residential and small business customers are likely to use a variety of technologies, including fixed wireless, rather than relying upon the existing copper-based local loop network or building a similar network.²⁵⁹ That is, the use of DS0 loops to enter the broadband and voice marketplace in urbanized areas is no longer a reasonably efficient technology. Indeed, the three national mobile wireless carriers continue to invest in 5G-based fixed wireless service, which will provide additional fixed-service choices for voice and broadband services, particularly in dense urbanized areas where 5G is being first deployed and where small cell technology is most efficiently used.²⁶⁰ And other fixed wireless providers are similarly deploying innovative solutions.²⁶¹ The record also indicates that a range of providers are deploying fiber-to-the-home networks, including but not limited to incumbent and competitive LECs.²⁶² These and other technologies, rather than copper loops, are reasonably efficient methods of entry into urbanized areas today.

²⁵⁶ For purposes of this analysis, we exclude deployment of non-incumbent LECs that report broadband based upon copper facilities on the assumption that these firms are likely using UNEs.

²⁵⁷ See, e.g., USTelecom Comments at 33 (noting that the median area of a cable-served census block is 0.008 square miles); cf. Verizon Comments at 19 (discussing the proximity of UNE DS0 circuits to “non-affiliated competitive fiber or a competitive fiber-lit building”). There are, on average, 0.057 square miles in a rural census block, 0.017 square miles in an urban cluster census block, and 0.028 square miles in an urbanized area census block. Staff calculation based on 2010 census blocks UA Type and reported land area.

²⁵⁸ *Triennial Review Order*, 18 FCC Rcd at 17107, para. 205 (noting that economies of scale are more likely to accrue for competitive LEC deployment in “urban areas where the concentration of potential customer locations is very dense” (emphasis added)).

²⁵⁹ See *Triennial Review Remand Order*, 20 FCC Rcd at 2549, para. 27 (explaining that the impairment standard “presume[s] that a requesting carrier will use reasonably efficient technology”); see also AT&T Comments at 20-21; Verizon Comments at 4; *Connect America Fund*; *High Cost Universal Service Fund*, WC Docket Nos. 10-90, 05-337, Report and Order, 28 FCC Rcd 5301, 5315-16, para. 33 WCB 2013) (“If an efficient carrier were to design a new wireline network today, it would be an all Internet protocol (IP) fiber network, not a circuit switched copper network, because such a network would be cheaper and more scalable over time. Indeed, an IP fiber network would be the appropriate choice for a wireline network even if there were no service obligation to extend broadband.”); cf. *Triennial Review Remand Order*, 20 FCC Rcd at 2586, para. 87 (explaining that the impairment inquiry considers indicia of actual and potential competition).

²⁶⁰ See *T-Mobile/Sprint Order*, 34 FCC Rcd at 10703, para. 283; AT&T Comments at 21; Verizon Comments at 10, 18; CenturyLink Comments at 13-14; Verizon Reply at 2; see also *Restoring Internet Freedom*, Declaratory Ruling, Report and Order, and Order, 33 FCC Rcd 311, at 387-88, para. 130 (2017) (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”), *aff’d in relevant part by Mozilla Corp v. FCC*, 940 F.3d 1 (D.C. Cir. 2019).

²⁶¹ See AT&T Comments at 21; <https://starry.com/technology>; <https://www.t-mobile.com/isp/FAQs>.

²⁶² *2020 Broadband Deployment Report*, 35 FCC Rcd at 8987, para. 2; AT&T Comments at 20; INCOMPAS/NWTA Comments at 17, 32-33; Sonic Comments at 2. To the extent competitive LECs claim they remain dependent upon UNE DS0 Loops in these urbanized areas to serve new customers in order to obtain the necessary scale and revenue to fund such fiber-to-the-home builds, we no longer find these claims compelling. These competitive LECs are not “new entrants” in these urbanized areas any longer, and network expansion like that for other types of technology providers should no longer be based on unnecessary unbundled DS0 loops.

62. Our conclusions about actual and potential competition are supported by our “at a minimum” authority under section 251(d)(2). We are not only permitted to look to the impact of unbundling requirements on broadband deployment²⁶³ as “rationally related to the goals of the Act,”²⁶⁴ but are required to take this important policy goal into account.²⁶⁵ In doing so, we find that continued unbundling of DS0 loops would inhibit, rather than promote, broadband deployment and the transition to next-generation networks and services in urbanized areas, because continued unbundling at regulated rates could artificially slow the transition away from legacy services and reduce incentives to invest in more advanced technologies, such as fixed wireless and fiber-based networks.²⁶⁶

63. While we proposed in the *Notice* a finding of no impairment in urban census blocks, which would include both urbanized areas (areas of 50,000 or more people) and urban clusters (areas with at least 2,500 but less than 50,000 people),²⁶⁷ based on the record and our own data, we conclude that we should limit that finding only to urbanized area census blocks.²⁶⁸ The data show that there are fewer competitor options in census blocks categorized as urban clusters and rural areas than in urbanized area census blocks. For example, as of December 31, 2019, approximately 84% of households in urbanized areas lived in census blocks with two or more providers of 25/3 Mbps broadband, compared to 59% of households in urban clusters and 42% in rural areas.²⁶⁹ We therefore reject arguments that we should extend relief to urban clusters.²⁷⁰ By limiting DS0 loop unbundling relief to urbanized areas, we also obviate the concerns of commenters that consumers in less densely populated areas, particularly urban clusters, may lose their only source of competition or lose access to high-speed broadband altogether.²⁷¹

²⁶³ *USTA II*, 359 F.3d at 579-80; *Triennial Review Order*, 18 FCC Rcd at 16987, para. 4. We reject the Electronic Frontier Foundation’s argument that we should reconsider our decisions in the 2000s to end the unbundling of fiber-to-the-home loops. Electronic Frontier Foundation Comments at 8-9. As the Commission has consistently found, unbundling fiber-based loops could reduce the incentives for both incumbent and competitive LECs to invest in next-generation networks. *Triennial Review Order*, 18 FCC Rcd at 17071, 17141-42, 17229, paras. 141, 272, 404; *Triennial Review Remand Order*, 20 FCC Rcd at 2633-35, paras. 182-85.

²⁶⁴ See 47 U.S.C. § 251(d)(2); *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; *UNE Remand Order*, 15 FCC Rcd 3696.

²⁶⁵ See 47 U.S.C. § 1302(b).

²⁶⁶ 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.

²⁶⁷ See 2010 Census Urban Area FAQs, https://www2.census.gov/geo/pdfs/reference/ua/2010ua_faqs.pdf.

²⁶⁸ See *Socket Decl.* ¶ 85.

²⁶⁹ Staff analysis of FCC Form 477 deployment data as of December 31, 2019. Incumbent LEC affiliation is determined at the holding company level and for all census block which the incumbent LEC’s study area overlaps the census block. We exclude a provider’s deployment if the provider is not an incumbent LEC and whose last mile connection is based upon a copper technology (i.e., FCC Form 477 Technology Codes 10, 11, 12, 20 and 30).

²⁷⁰ See, e.g., *GTA Comments* at 8-9 (urging the Commission to clarify that any finding of no impairment will apply to both urbanized area census blocks and urban cluster census blocks).

²⁷¹ See, e.g., *Socket Decl.* ¶¶ 82-85. Commission staff analysis of FCC Form 477 deployment data as of December 31, 2019 and of study area maps indicates that approximately 42,000 households have a single provider option for 25/3 Mbps that may rely on UNE DS0 Loops, based on the number of households who live in census blocks where a single provider reports 25/3 Mbps deployment for residential customers over a copper wire loop. The identification of the provider as a CLEC is based upon the provider’s holding company name and incumbent LEC study area maps that indicate that the provider is not the incumbent LEC. About 35,000 of these households live in rural areas and urban clusters where UNE DS0 Loops will remain available. We believe that the approximately 7,000 households who live in urbanized areas (just 0.008% of the 88 million households in urbanized areas) with only one provider of 25/3 Mbps will not be negatively affected by our action today for two reasons. First, as discussed below, we provide a two-part transition period for UNE DS0 Loops in urbanized areas, including a 2-year period for new orders and a

(continued....)

64. *Forbearance Analysis.* The facts supporting our finding of non-impairment equally support an independent finding that forbearance from our UNE DS0 Loop and UNE Copper Subloop requirements in urbanized area census blocks is appropriate. As with UNE DS1 and DS3 Loops, we find that forbearance is appropriate based on our analysis of the specific circumstances at issue.²⁷² Competitive LECs wanting to continue offering the same services currently provisioned over UNE DS0 Loops in urbanized areas will have access to commercial alternatives, subject to the existence of “suitable facilities” after the transition.²⁷³ And because the marketplace for mass market last-mile loops is competitive, as discussed above, the marketplace will discipline the prices of those services.

65. *Section 10(a)(1).* We conclude that enforcement of UNE DS0 Loop obligations in urbanized area census blocks is not necessary to ensure just and reasonable rates. Intermodal competition in urbanized areas has increased dramatically since the Commission adopted the current DS0 loop unbundling obligations, and mass market customers in urbanized areas now have numerous voice and broadband options available to them. The competitive pressures posed by those intermodal competitors will serve to constrain incumbent LEC rates for commercial replacement offerings to UNE DS0 Loops.²⁷⁴ Both actual and potential competition force incumbent LECs to compete on price in order to retain, and grow, their existing customer bases.²⁷⁵ The record supports forbearing from this unbundling obligation,²⁷⁶ as enforcement of the obligation is not necessary to ensure just and reasonable rates in this competitive environment.

66. *Section 10(a)(2).* We find that the evolving marketplace and the statutory and regulatory safeguards that work to ensure just and reasonable rates also ensure that consumers will not be harmed by forbearance from enforcement of the UNE DS0 Loop obligation. Most importantly, consumers in urbanized areas now have a multitude of intermodal competitors, with others attempting to enter, vying for their voice and broadband business. The fact that these competitors use more modern technologies than copper-based local loops supports our decision today. As we found in the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, “regulations that subsidize end-user customers to remain on legacy services and technologies run counter to the Commission’s goal of facilitating technology transitions to the long-term benefit of all consumers.”²⁷⁷ We also note that there is evidence that wholesale alternatives to UNE DS0 Loops currently exist in certain areas or are starting to emerge. For example, according to CenturyLink, at least three large cable providers launched products intended to

4-year period for existing orders. Second, we believe that these areas may be among the ripest for entry by competitive providers, including fixed wireless providers, based on their relative density and now that UNE DS0 loops will no longer be available in these areas after the transition.

²⁷² *Earthlink v. FCC*, 462 F.3d at 8.

²⁷³ INCOMPAS-USTelecom Compromise Proposal at 2.

²⁷⁴ *See, e.g.*, Verizon Reply at 13.

²⁷⁵ Competition overall constrains incumbent LEC rates to end users. *See, e.g.*, paras. 59-61. And incumbent LECs have an incentive to make wholesale inputs available at reasonable rates so that they will continue to earn revenues from competitive LECs rather than losing those revenues to intermodal competitors. *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6512, para. 19 (“We are persuaded that price cap LECs have an incentive to develop reasonable commercial wholesale arrangements with these competitive LECs in response to facilities-based competition from cable provider VoIP services and wireless alternatives. Such wholesale arrangements enable price cap LECs to continue earning revenues from their networks rather than lose any revenue opportunity altogether if the competitive LEC’s customer migrates to a different intermodal provider.”); USTelecom Comments at 38 (“ILECs, and other alternative providers, will continue to compete to serve end-user customers and will continue to provide commercially negotiated access to their networks.”); *see also* CenturyLink Comments at 5-6 (discussing the DS0 alternative it made available after receiving forbearance relief in the *Qwest Omaha Order*); *BDS Order*, 32 FCC Rcd at 3467, para. 13.

²⁷⁶ *See* INCOMPAS-USTelecom Compromise Proposal at 2.

²⁷⁷ *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518, para. 28.

serve as alternatives to UNE Analog Loops shortly after the Commission adopted the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*.²⁷⁸ And CenturyLink itself offers a UNE DS0 Loop wholesale alternative in areas in which it was previously granted forbearance.²⁷⁹ Moreover, incumbent LECs have committed to making wholesale alternatives commercially available “where suitable facilities exist” “in any area in which unbundled DS0 loops are no longer available,”²⁸⁰ which competitive LECs can use to provide service.

67. *Section 10(a)(3)*. Finally, we find that forbearing from the UNE DS0 Loop obligation in urbanized area census blocks is in the public interest as it promotes the policy of facilitating the deployment of next-generation networks and services and encouraging the transition away from legacy facilities.²⁸¹ Indeed, extensive intermodal competition has already developed in these areas. Retaining UNE DS0 Loop obligations in this competitive environment in urbanized area census blocks could actually harm the facilities-based competitive options that are currently available and developing, because the use of UNEs at cost-based rates may allow providers using legacy technologies to undercut new entrants using fixed wireless and other advanced technologies, as well as reducing competitive LECs’ incentives to invest in advanced technologies.²⁸² And continued reliance on legacy services by end users reduces the incentive of incumbent and competitive LECs alike to deploy advanced networks and services.²⁸³ We therefore find retaining this requirement in urbanized areas would have an adverse effect on the public interest.²⁸⁴

68. *Geographic Area*. Certain commenters urge us to find that competitive LECs are not impaired without access to all UNE DS0 Loops or that we should forbear from this obligation on a nationwide basis.²⁸⁵ We disagree. While broadband deployment and competitive entry may be increasing in urban clusters and rural areas, competitive broadband availability in these areas continues to lag behind densely populated urbanized areas, and the costs of deployment are inherently higher as density falls.²⁸⁶

²⁷⁸ CenturyLink Comments at 5-6.

²⁷⁹ *Id.* at 22; *see also* Frontier Reply at 8-9 (“Frontier . . . can confirm that in addition to no end users losing access to service in its footprint, CLECs will continue to have access to alternative services at commercial rates. * * * Frontier reaffirms that it will transition to commercial arrangements. Additionally, Frontier here confirms that it already offers a voice grade DS0 special access service through its footprint . . . and represents a DS0 freely available at a commercial rate. * * * Frontier also offers resale of its broadband services to wholesale carriers nationwide.”).

²⁸⁰ *See* INCOMPAS-USTelecom Compromise Proposal at 2.

²⁸¹ As we noted in the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, end users transitioning from TDM to new technologies and services “will experience the benefits the Commission has recognized as flowing from that transition,” including “not only the benefits from the technologies themselves but also from the vibrant competition associated with next-generation [] services.” *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518, para. 28.

²⁸² *See id.* at 6511, para. 16 (finding that retaining UNE Analog Loop requirements in price cap areas would reduce incentives for competitive LECs to invest in more advanced services).

²⁸³ *See, e.g.,* Verizon Comments at 19-20, 22-23; *see also* USTelecom Comments at 20.

²⁸⁴ The Commission has previously expressed its preference for facilities-based competition. *See, e.g., Triennial Review Order*, 18 FCC Rcd at 16984, para. 3; *Triennial Review Remand Order*, 20 FCC Rcd at 2535, para. 2; *UNE Transport Forbearance Order*, 34 FCC Rcd 5767; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd 6503.

²⁸⁵ *See, e.g.,* Alaska Communications Comments at 4-7; USTelecom Comments at iv; AT&T Comments at 18-19. The latter two commenters subsequently entered into a joint compromise proposal that appears to limit their request for relief to urbanized areas subject to certain conditions. *See* INCOMPAS-USTelecom Compromise Proposal at 2.

²⁸⁶ *Triennial Review Order*, 18 FCC Rcd at 17107, para. 205.

69. Alternatively, other commenters urge us to make our findings of no impairment or forbearance on a county basis rather than on a census block basis, as proposed in the *Notice*,²⁸⁷ for purposes of administrative efficiency.²⁸⁸ Still others request that we implement our findings on a wire center basis, to provide incumbent LECs with flexibility in implementation.²⁸⁹ We disagree that a geographic basis other than census blocks is the best geographic area to rely upon. The Commission's Form 477 data is reported on a census block level,²⁹⁰ thus making that geographic boundary the most appropriate for measuring the extent of competitive facilities-based deployment by technology and the availability of competitive broadband alternatives for households. While incumbent LECs provision UNEs at the wire center level, and some wire centers serve both urbanized areas and urban cluster and rural census blocks,²⁹¹ to the extent an incumbent LEC does not wish to take measures to distinguish between the different types of census blocks, we find that it is better to err on the side of overinclusiveness for UNE DS0 Loops,²⁹² to avoid eliminating such UNE access for customers located in rural areas and urban clusters.

70. *Cable Deployment.* Certain commenters assert that reliance on cable deployment as evidence of non-impairment is inappropriate due to cable provider first-mover advantages, because they already had extensive facilities deployed for providing video service and had an established customer base.²⁹³ We disagree. For one, our impairment and forbearance analyses require us to consider competition from all sources.²⁹⁴ When affirming the Commission's decision not to require the unbundling of the broadband capabilities of hybrid loops, the D.C. Circuit held that "robust intermodal competition from cable providers" was sufficient evidence of competition, in itself, to justify the Commission's decision.²⁹⁵ The same extensive investment in the legacy cable video network that enabled

²⁸⁷ See *UNE/Resale Notice*, 34 FCC Rcd at 11306, 11309, paras. 38, 42.

²⁸⁸ See, e.g., Puerto Rico Tel. Co. Comments at 14.

²⁸⁹ Alaska Communications Comments at 5-7; Verizon Comments at 21-22; AT&T Reply at 28. The latter two commenters are signatories to the joint compromise proposal, suggesting that these providers no longer seek to have relief granted on a wire center basis. See INCOMPAS-USTelecom Compromise Proposal at 2.

²⁹⁰ See USTelecom Comments at 32.

²⁹¹ See, e.g., Verizon Comments at 21-22 ("The Commission should . . . ensure that its proposal provides flexibility for implementing relief for digital DS0 loops at the census block level. Verizon's and other ILECs' systems used in the provision and rating of UNEs typically associate circuits with wire centers, not census blocks. Going forward, there could be cases where a single wire center serves predominantly urban census blocks, but also small pieces of one or more rural census blocks. In this situation, flexibility is needed to ensure that the ILEC is not required to maintain UNE provisioning in wire centers based on the remote possibility that a small number of UNEs might be ordered from that wire center to serve the fringes of a rural census block.").

²⁹² Indeed, the Commission erred on the side of overinclusiveness when defining Tier 3 Wire Centers for the purpose of where to unbundle transport. See *Triennial Review Remand Order*, 20 FCC Rcd at 2604, para. 123 ("We recognize that this definition may be slightly over-inclusive, including wire centers where there is actual competition that is not dependent on fiber-based collocations and that survives even in the absence of significant general demand.").

²⁹³ See, e.g., INCOMPAS/NWTA Comments at 3-4, 24; Sonic Comments at 12; TPx Comments at 31; TPx Reply at 16.

²⁹⁴ See *USTA I*, 290 F.3d at 418, 429 (reversing the unbundling of the high-frequency portion of the copper loop to provide DSL services because the Commission "failed to consider the relevance of competition in broadband services coming from cable"); *USTA II*, 359 F.3d at 220-21 (reaffirming "*USTA I*'s holding that the Commission cannot ignore intermodal alternatives"); *Earthlink v. FCC*, 462 F.3d at 11-12; *Triennial Review Remand Order*, 20 FCC Rcd at 2589, para. 95, 2639, para. 194, 2651, para. 215; CenturyLink Reply at 7-9.

²⁹⁵ See *USTA II*, 359 F.3d at 582; see also AT&T Reply at 3, 26; Verizon Reply at 14; cf. AT&T Comments at 18-20; CenturyLink Comments at 43-46; USTelecom Comments at iv, 32-35; Verizon Comments at 16-29 (all pointing to cable deployment statistics to supporting elimination of access to UNE DS0 Loops).

cable companies to provide competitive voice and broadband service in competition with incumbent LECs and served as the underpinning of the Commission's decision to refrain from unbundling hybrid loop broadband capabilities applies equally to our decision today for UNE DS0 Loops. If the Commission was permitted to rely on cable deployment to support a decision not to unbundle the broadband capabilities of hybrid loops, we may rely on it to support our decision to eliminate unbundling for DS0 loops here. Moreover, we can consider the effects of intermodal competition in our decision to weigh other factors when considering whether to order unbundling, particularly the incentives for broadband deployment, based on our section 251(d)(2) authority.²⁹⁶

71. *Form 477 Data.* Some commenters assert that we should not rely on Form 477 data to support competition findings because of flaws in that data.²⁹⁷ We disagree. Our UNE DS0 Loop relief in this Order is limited to urbanized areas. The census blocks in those areas are generally extremely small,²⁹⁸ meaning even in the unlikely event a provider is serving only one or a few locations in these census blocks, we can infer that the other locations in the census block are extremely likely to be served in the near future.²⁹⁹ Indeed, based on the most recent Form 477 data, cable's footprint increased by 1.4 million people from December 2018 to December 2019.³⁰⁰ Our assumption of such a deployment strategy, considering the high fixed costs of broadband deployment, is a "reasonable inference[]" regarding the prospects for competition in one geographic market from the state of competition in other, similar markets," as we are required to make per the *USTA II* decision.³⁰¹

72. *5G and Other Nascent Technologies.* Certain commenters assert that we should not rely on potential 5G deployment to support findings of potential competition sufficient to find non-impairment.³⁰² Again, as we explain above, DS0 loops are no longer a reasonably efficient technology to provide voice or broadband services in urbanized areas. We must look not only to existing competition in making an impairment finding, but to all sources of *potential* competition as well.³⁰³ And the impairment inquiry specifically "presume[s] that a requesting carrier will use reasonably efficient technology."³⁰⁴ As we have indicated, we believe it is increasingly likely to be fixed wireless technology, whether provided by 5G or other means.³⁰⁵ We therefore "explicitly reject arguments that support unbundling based on the costs associated with a particular architecture or approach – even an architecture or approach employed by the incumbent LEC – where entry using a more efficient available technology would permit economic entry."³⁰⁶

²⁹⁶ See 47 U.S.C. § 251(d)(2); *USTA II*, 359 F.3d at 579-80.

²⁹⁷ See, e.g., Sonic Comments at 14-15; Declaration of Brian Worthen, Attach. to Mammoth Comments, ¶ 12 (Mammoth Decl.); Socket Decl. ¶ 80.

²⁹⁸ USTelecom Comments at 33 (noting that the median area of a cable-served census block is 0.008 square miles); AT&T Comments at 20; Verizon Reply at 12-13.

²⁹⁹ See, e.g., USTelecom Comments at 33; Verizon Reply at 12-13.

³⁰⁰ FCC Form 477 data as of December 31, 2019.

³⁰¹ See, e.g., *Triennial Review Remand Order*, 20 FCC Rcd at 2546, para. 22 (citing *USTA II*, 359 F.3d at 575).

³⁰² See, e.g., Sonic Comments at 16-17; TPx Comments at 32; Mammoth Decl. ¶ 11; Socket Decl. ¶ 25.

³⁰³ See, e.g., *AT&T v. Iowa Utils. Bd.*, 525 U.S. at 389; *USTA I*, 290 F.3d at 425, 428; see also CenturyLink Reply at 7-9.

³⁰⁴ *Triennial Review Remand Order*, 20 FCC Rcd at 2549, para. 27.

³⁰⁵ See, e.g., INCOMPAS/NWTA Reply at 17; TPx Comments at 2; Updated Declaration of Russell Shipley, Attach. to TPx Comments, ¶ 2 (TPx Updated Decl.); Mammoth Decl. ¶¶ 1, 6, 8; Declaration of Eduardo Santos, Attach. to WorldNet Comments, ¶ 4; AT&T Comments at 21; Verizon Comments at 4, 18-20; Verizon Reply at 2; CenturyLink Reply at 5-6; Puerto Rico Tel. Co. Reply at 10.

³⁰⁶ *Triennial Review Remand Order*, 20 FCC Rcd at 2549, para. 27.

73. *“Natural Forbearance.”* Certain commenters assert that the Commission’s copper retirement rules³⁰⁷ provide incumbent LECs an avenue for “natural forbearance”³⁰⁸ and thus assert that we should not provide UNE DS0 Loop relief through deregulatory means. The continued unbundling obligation, commenters assert, thus acts as an incentive for incumbent LECs to deploy fiber.³⁰⁹ We are unpersuaded. First, unbundling imposes significant economic costs not recognized by this argument.³¹⁰ Second, unbundling requirements lack sufficient countervailing benefits in densely populated urbanized areas, given the degree of competition and potential entry that already exists in those areas separate from the incumbent LEC’s decision whether or not to retire copper in that area. Given the existence of competition in urbanized areas that does not rely on access to UNE DS0 Loops, we find that this one-sided regulation giving certain competitive LECs an economic advantage where others have entered the market without such an advantage is unwarranted, and incumbent LECs should no longer have to bear this lopsided burden.³¹¹

74. *Single Competitor Not Enough to Find Non-Impairment.* Certain commenters also oppose the proposed finding of non-impairment in the *Notice* because, they assert, a single competitor is not sufficient to show that competitive providers are not impaired without unbundled access to the particular network element.³¹² However, we find evidence of existing and potential intermodal competition in urbanized areas. Nor is this argument consistent with the D.C. Circuit’s holding in *USTA II* that the presence of intermodal competition from cable providers alone was sufficient to support eliminating unbundling obligations for hybrid loops.³¹³ In any event, competitive providers will still have access to UNE DS0 Loops in census blocks in rural and urban cluster areas after the relief we grant in this order becomes effective, thus largely obviating the concerns of these commenters.

75. *Transition Period.* While the *Notice* proposed a three-year transition period and sought comment on a six-month period for new orders,³¹⁴ numerous stakeholders have negotiated and proposed an alternative transition timeframe that we find to be reasonable based on the record in this proceeding and which we adopt instead. We condition our relief from UNE DS0 Loop and associated UNE Copper Subloop obligations on a two-part transition, consistent with the Compromise Proposal. First, we permit competitive LECs to order new UNE DS0 Loops for an additional 24 months after the effective date of

³⁰⁷ 47 CFR §§ 51.325 *et seq.*

³⁰⁸ See, e.g., Sonic Comments at 27; Socket Decl. ¶ 88; TPx Reply at 18; Declaration of Dane Jasper, Attach. to Sonic Reply ¶ 4 (Sonic Reply Decl.); Raw Bandwidth Comments at 6-8; Public Knowledge Comments at 4. Because section 251(c)(3)’s requirements do not apply to fiber facilities (other than dark fiber transport), see generally 47 CFR § 51.319, an incumbent LEC may obtain unbundling relief by deploying fiber or other next-generation networks and then retiring its copper facilities pursuant to our network change disclosure rules. See 47 U.S.C. 251(c)(5); 47 CFR §§ 51.325 *et seq.* Incumbent LECs retire their copper facilities through a notice-only process, without the need to seek our authorization. See 47 U.S.C. 251(c)(5); 47 CFR §§ 51.325(a), 51.333.

³⁰⁹ See, e.g., Socket Decl. ¶ 88; TPx Reply at 18; Sonic Decl. ¶ 4; Public Knowledge Comments at 4.

³¹⁰ *AT&T v. Iowa Utils. Bd.*, 525 U.S. at 389 (Breyer, J., concurring in part and dissenting in part).

³¹¹ See, e.g., *UNE Analog Loop and Avoided Cost Resale Forbearance Order*, 34 FCC Rcd at 6511, para. 11 (forbearing from the UNE Analog Loop requirement in price cap areas because, among other reasons, the requirement “distorts competition in the voice market by imposing unnecessary costs on one class of competitors (price cap LECs) and those competitors alone”); USTelecom Reply at 22 (“Once competition has arrived, the justification for UNEs is no longer present, no matter how badly a competitor would like to take advantage of an uneven playing field.”); cf. USTelecom Comments at 29 (in the context of advocating for eliminating DS1/DS3 loop unbundling obligations, noting the “marketplace distortions created by imposing unnecessary costs on one class of competitors”).

³¹² See, e.g., Sonic Comments at 13; Declaration of Thane May, Clear Rate Communications, ¶¶ 2-3 (Clear Rate Decl.).

³¹³ See *USTA II*, 359 F.3d at 582.

³¹⁴ See *UNE/Resale Notice*, 34 FCC Rcd at 11325-26, para. 97.

this order.³¹⁵ This timeframe will enable competitive LECs to continue to execute short-term business plans, honor contractual obligations with new or existing customers, including small businesses, and replace UNE DS0 Loops lost through end-user customer moves or loop degradation, while they determine which alternative voice service option will best serve their customers' needs.³¹⁶ Second, we adopt a 48-month grandfathering period for all competitive LEC customers. The 48-month transition timeframe within which all UNE DS0 Loops (including any new UNE DS0 Loops ordered during the first 24 months) must be transitioned to alternative arrangements will commence on the effective date of this order. Industry organizations and their members, accounting for the lion's share of buyers and sellers of these UNEs, agree that this 48-month period is reasonable and should provide more than enough time for competitive LECs and their customers to transition to alternative service arrangements.³¹⁷

76. We reject proposals calling for either a longer transition period³¹⁸ or a shorter transition period.³¹⁹ We find this four-year period to be a reasonable time frame that is sufficient to enable competitive LECs in these urbanized areas to transition away from depending on UNE DS0 Loops without stranding any investments they may have made³²⁰ while not burdening incumbent LECs with the costs of unbundling longer than necessary.

77. During the relevant transition period for any competitive LEC customer, any UNE DS0 Loops that a competitive LEC leases as of the effective date of this Order shall be available for lease from the incumbent LEC at regulated UNE rates.³²¹ However, beginning with month 37 of the grandfathering period, incumbent LECs may raise their prices by up to 25%.³²² And incumbent LECs will be entitled to

³¹⁵ See INCOMPAS-USTelecom Compromise Proposal at 2.

³¹⁶ See *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61; *BDS Order*, 32 FCC Rcd at 3533, para. 167.

³¹⁷ See INCOMPAS-USTelecom Compromise Proposal at 2; see also *BDS Order*, 32 FCC Rcd at 3467-68, paras. 13-15. Competitive LECs typically have contract lengths of a minimum of three years with business or government customers. See, e.g., Allstream Mar. 20, 2020 Decl. ¶ 16; see also Granite et al. June 14, 2019 *Ex Parte* Letter at 4; Granite et al. July 19, 2019 *Ex Parte* Letter at 2; TPx June 27, 2019 *Ex Parte* Letter at 2; Call One July 10, 2019 *Ex Parte* Letter at 2-3 (both customer and supplier contracts). To the extent competitive LECs have entered into longer-term contracts with their customers without securing long-term contracts with their suppliers, they have done so at their own risk like any other business does, and we see no reasonable basis for accommodating that risk.

³¹⁸ See, e.g., INCOMPAS/NWTA Comments at 18 (advocating for a 7-year transition period); Sonic Reply Decl. ¶ 8 (advocating for a transition period longer than 3 years); Clear Rate Decl. ¶ 3.

³¹⁹ See, e.g., USTelecom Comments at 66 (advocating for a transition period of no more than 18 months).

³²⁰ See, e.g., Sonic Reply at 1; TEXALTEL Reply at 10; Letter from Karen Reidy, KTR Consulting, Counsel for Sonic Telecom LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308, at 2 (rec. Feb. 27, 2020).

³²¹ Such rates are established either through negotiated interconnection agreements or through state-commission-arbitrated rates applying certain Commission-developed pricing formulas. See 47 U.S.C. §§ 251, 252; 47 CFR § 51.501 *et seq.* Our forbearance action is not intended to upset pre-existing interconnection agreements or other contractual arrangements that may currently exist nor pre-existing state-commission-arbitrated rates during the transition period (including any already-adopted state commission scheduled changes in UNE rates), which should quell concerns of those fearing near-term price increases for UNE DS0 Loops resulting from this Order. See *Triennial Review Remand Order*, 20 FCC Rcd at 2613-14, para. 145; see also TPx Comments at 38; Declaration of Mark Sollenberger, First Communications, ¶ 10 (First Communications Decl.); TEXALTEL Sept. 5, 2018 Reply, at 9-10; TPx Aug. 6, 2018 Opposition, at 27; USTelecom June 21, 2018 *Ex Parte* Letter at 1; INCOMPAS June 28, 2019 *Ex Parte* Letter at 2.

³²² See INCOMPAS-USTelecom Compromise Proposal at 2; USTelecom Comments at 66. Delaying any price increase for the first three years of the transition period should obviate concerns about economic pressure accompanying any such increase. See, e.g., INCOMPAS/NWTA Comments at 40; TPx Comments at 14; WorldNet Comments at 6-7; TEXALTEL Reply at 14-18. However, allowing a price increase during the final year of the transition will further incentivize competitive LECs to transition their customers off of legacy networks. See, e.g.,

(continued....)

charge market rates after month 48, when the grandfathering period will expire.³²³ Of course, the transition mechanism we adopt is simply a default process, and competitive and incumbent LECs remain free to negotiate different arrangements superseding this transition period and replacing UNE DS0 Loop arrangements with negotiated commercial arrangements at any earlier time. We find this approach will ensure an orderly transition for end-user customers of affected competitive LECs by mitigating any immediate service disruption or rate changes that could otherwise be experienced by these end users if current rates for these UNE DS0 Loops were immediately eliminated.³²⁴

3. UNE Narrowband Voice-Grade Loops

78. In the *Notice*, we proposed to eliminate all remaining narrowband voice-grade loop unbundling obligations.³²⁵ We find that competitors are no longer impaired without access to these elements, nationwide.³²⁶ Moreover, we find that continued unbundling of these network elements is no longer justified because it contravenes the Congressionally-mandated policy goal of ensuring the deployment of next-generation networks and services.³²⁷ We also adopt our proposal and independently find that forbearance from the remaining UNE Narrowband Voice-Grade Loop obligations nationwide is warranted.³²⁸

79. *Background.* Under our current rules, incumbent LECs must provide three specific types of unbundled narrowband voice-grade loops: UNE Analog Loops,³²⁹ 64 kbps voice-grade channels over last-mile fiber loops when an incumbent LEC retires copper (UNE 64 kbps Voice-Grade Channel Over Fiber Loops),³³⁰ and the TDM capabilities of hybrid loops³³¹ (UNE Hybrid Loops) (collectively, UNE Narrowband Voice-Grade Loops).

80. UNE Analog Loops are one type of copper loop that incumbent LECs must make available to competitors under the Commission's rules implementing section 251(c)(3).³³² Notably, UNE Analog Loops are capable of providing only legacy TDM voice service, often referred to as plain old

CenturyLink Comments at 51 ("As long as they can purchase UNE DS0 loops at below-market rates, some CLECs will hold onto these services, rather than migrating to next-generation networks and services. Thus, as the Commission recently found, despite the cost and performance advantages of next-generation services, the subsidy inherent in UNEs "distorts the incentive of competitive carriers in continuing to offer legacy services based on UNEs."); Alaska Communications Comments at 1 ("The unbundling regime affects ILECs' costs of providing service, in that it impacts their ordering, provisioning and operational systems, increases customer service, legal and regulatory costs, and of course it directly affects their bottom line, requiring them to sell piece-parts of their networks at below-market prices."); *see also* *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, *Petition for Forbearance of USTelecom—The Broadband Association*, at 44 (filed May 4, 2018) (asking for a 15% increase in UNE rates during the transition period).

³²³ *See* INCOMPAS-USTelecom Compromise Proposal at 2. And incumbent LECs have committed to providing commercial alternatives for DS0s at the end of the transition period where the facilities exist to do so. *See id.*

³²⁴ *See Triennial Review Remand Order*, 20 FCC Rcd at 2613-14, para. 145; TPx Comments at 38; First Communications Decl. ¶ 10; *see also* TEXALTEL Sept. 10, 2018 Reply at 9-10.

³²⁵ *See UNE/Resale Notice*, 34 FCC Rcd at 11312, para. 52.

³²⁶ 47 U.S.C. § 251(d)(2).

³²⁷ *See id.* § 1302(a); *see also* *USTA II*, 359 F.3d at 580.

³²⁸ *See generally* 2018 *Communications Marketplace Report*, 33 FCC Rcd at 12663, para. 192, 12668-69, paras. 203-07 (describing extensive intermodal competition in today's voice service marketplace).

³²⁹ *See* 47 CFR § 51.319(a)(1).

³³⁰ *See id.* § 51.319(a)(3)(iii)(C).

³³¹ *See id.* § 51.319(a)(2)(ii)-(iii) (UNE Hybrid Loops).

³³² *Id.* § 51.319(a)(1).

telephone service, or “POTS.”³³³ UNE Analog Loops, by definition, are not capable of providing or supporting digital communications, including modern IP-based services or even digital subscriber line (DSL) service. In the recent USTelecom forbearance proceeding, we granted forbearance relief from unbundling requirements for UNE Analog Loops to price cap incumbent LECs in their service areas.³³⁴ We granted this relief due to extensive intermodal competition present in the voice marketplace, the harmful marketplace distortions generated by outdated regulations, and because the continued existence of UNE Analog Loops reduced incentives for both incumbent and competitive LECs to invest in their own facilities and to transition to next-generation networks.³³⁵

81. UNE Hybrid Loops are another type of loop that incumbent LECs must make available to competitors under the Commission’s rules implementing section 251(c)(3).³³⁶ 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.”³³⁷ 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.³³⁸ UNE Hybrid Loops are used to provide the “exact same legacy TDM-based services that could be provided with UNE Analog Loops.”³³⁹ The only difference is that UNE Hybrid Loops “provide those services partially over fiber facilities, rather than over copper-only facilities.”³⁴⁰ In the *Triennial Review Order*, the Commission declined to order unbundling of the packet-based capabilities of hybrid loops, because unbundling “these next-generation network elements would blunt the deployment of advanced telecommunications infrastructure by incumbent LECs and the incentive for competitive LECs to invest in their own facilities, in direct opposition to the express statutory goals authorized in section 706.”³⁴¹

82. The UNE 64 kbps Voice-Grade Channel Over Fiber Loops obligation was created when the Commission eliminated unbundled access to fiber-based local loops because, among other reasons, requiring unbundling of fiber-based local loops would “undermine important goals of the 1996 Act,” particularly the section 706 goal to encourage the deployment of advanced telecommunications capability to all Americans.³⁴² The Commission found, however, that where an incumbent LEC has retired its copper facilities, lack of access to an incumbent LEC fiber loop would impair a competitive carrier in its provision of narrowband voice services it had been providing over the unbundled copper loop.³⁴³ In essence, this “very limited” requirement was intended to prevent incumbents from exercising their “sole control” over the disposition of copper loops (by retiring the copper loop and replacing it with a fiber-

³³³ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6505, para. 4.

³³⁴ See *id.* at 6504, paras. 2-3.

³³⁵ See *id.* at 6508-12, paras. 11-18.

³³⁶ 47 CFR § 51.319(a)(2).

³³⁷ *Id.* § 51.319(a)(2).

³³⁸ *Id.* § 51.319(a)(2)(ii)-(iii).

³³⁹ AT&T Comments at 32; USTelecom Reply at 33; see also AT&T Reply at 36; CenturyLink Reply at 48.

³⁴⁰ AT&T Comments at 32.

³⁴¹ *Triennial Review Order*, 18 FCC Rcd at 17149-54, paras. 288-95, *aff’d* *USTA II*, 359 F.3d at 579-82.

³⁴² *Triennial Review Order*, 18 FCC Rcd at 17087-88, para. 173, 17145, para. 278 (consistent with its section 251(d)(2) authority, the Commission declined to require unbundling for fiber-based loops even if “some level of impairment” existed, finding that, in light of its section 706 mandate, the benefits of removing incumbent LEC unbundling obligations—i.e., promoting investment in the “network infrastructure necessary to provide broadband services to the mass market”—outweighed any such impairment).

³⁴³ See *Triennial Review Order*, 18 FCC Rcd at 17144, para. 277.

based local loop) to disrupt competitors' provision of narrowband services.³⁴⁴ By 2015, the Commission recognized that this requirement itself could undermine incentives for broadband deployment and granted forbearance on a forward-looking basis to incumbent LECs from the requirement to make available a 64 kbps voice-grade channel over overbuilt fiber loops.³⁴⁵ The Commission found that this unbundling requirement could impede copper loop retirements and the ongoing transition from copper to fiber and from legacy TDM-based services to next-generation networks and services.³⁴⁶ While the Commission found that this UNE had a "decreasingly relevant purpose" as a safeguard to protect narrowband voice competition during the copper-to-fiber transition, it nevertheless retained the 64 kbps voice-grade channel unbundling obligation for existing users.³⁴⁷

83. UNE Narrowband Voice-Grade Loops, be they UNE Analog Loops, UNE Hybrid Loops, or UNE 64 kbps Voice-Grade Channel Over Fiber Loops, are used, if at all, almost exclusively for the provision of switched access 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.³⁴⁸ Indeed, in 2019, incumbent LEC legacy networks provided only about 8% of retail voice subscriptions across all technologies,³⁴⁹ serve a minority of both wired residential connections and wired business connections,³⁵⁰ and face growing competition from voice service alternatives including 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.³⁵¹

84. *Impairment Analysis.* Consistent with our *Notice* proposal to eliminate these obligations, we find that competitors are not impaired without access to UNE Narrowband Voice-Grade Loops due to the widespread availability of intermodal competition, the declining number of incumbent LEC voice subscriptions, the lack of demand for these UNEs, and the migration away from legacy TDM services.³⁵² We find that continued unbundling of these network elements contravenes the congressionally mandated policy goal of ensuring the deployment of next-generation networks and services.

85. *UNE Analog Loops.* We find that competitors are not impaired without access to UNE Analog Loops nationwide. Today, there are a multitude of competitive alternatives for voice services that do not rely on an incumbent LEC's legacy network. We find there is no longer any credible basis to claim competitors are impaired without access to these UNE Analog Loops. First, voice-grade copper

³⁴⁴ See *id.*

³⁴⁵ See *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6189, para. 55. This 64 kbps unbundling requirement remains in the Code of Federal Regulations. See 47 CFR § 51.319(a)(3)(iii).

³⁴⁶ *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6190, para. 57.

³⁴⁷ *Id.* at 6189, para. 55, 6190, para. 58, 6194, para. 66.

³⁴⁸ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509-10, paras. 12-13. Our conclusions in that *Order* were based on Form 477 data, which is collected on a nationwide basis. See FCC, Voice Telephone Services as of June 30, 2017 (2019), <https://www.fcc.gov/voice-telephone-services-report>.

³⁴⁹ See FCC Form 477 Local Voice Subscription Data, preliminary data as of December 31, 2019, Tbl. 1, Reference Lines 1, 4, and 13; see also FCC, Office of Economics and Analytics, Industry Analysis Division, Voice Telephone Services: Status as of December 31, 2018, at 2-3, Fig. 1 & Fig. 2 (Mar. 2020), reporting 348.2 million mobile voice subscriptions, 110.4 million wireline retail voice telephone service connections, and 47.3 million incumbent LEC wireline retail voice telephone service connections ($47.3/(348.2 + 110.4) = 10.3\%$), <https://www.fcc.gov/voice-telephone-services-report>.

³⁵⁰ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6509, para. 12.

³⁵¹ See *id.* at 6507-10, paras. 9-13; see also, e.g., Verizon Comments at 22.

³⁵² Section 251(d)(2) mandates that the Commission consider "at a minimum" whether access to proprietary network elements is necessary and a competitor would be impaired without access to such network elements. 47 U.S.C. § 251(d)(2); see also *UNE/Resale Notice*, 34 FCC Rcd at 11313-15, paras. 57, 60, 64 (seeking comment on whether impairment exists on a nationwide basis for narrowband loops).

loops are no longer a reasonably efficient technology to enter the voice marketplace, in light of facilities-based and over-the-top alternatives to provide voice service. A reasonable entrant would use any of a number of newer technologies and services capable of providing advanced voice and broadband services, including wireless technologies.³⁵³ And a number of over-the-top voice capabilities are available that could also be used to enter the voice market today without constructing network facilities, instead relying on the broadband capabilities of other providers' networks.³⁵⁴

86. Second, intermodal competition for voice services is so advanced that competitive providers, including cable providers, wireless providers, and other VoIP providers, have come to dominate the voice service marketplace.³⁵⁵ The level of competition, much of which evolved without UNEs, is such that the cost of unbundling can no longer be justified.³⁵⁶ As the Commission noted in 2004, impairment can only be found for low-capacity loops "if no alternatives outside the incumbent's network are available."³⁵⁷

87. Finally, the declining share of incumbent LEC switched-access voice subscriptions in recent years and the prevalent deployment of facilities-based alternatives indicates that incumbent LECs no longer have a unique position in the voice service market.³⁵⁸ We further find that continued unbundling of these network elements that serve only to preserve outdated legacy voice services³⁵⁹ slows the transition to next-generation networks and services in contravention of our significant policy objectives in promoting the deployment of advanced telecommunications capabilities.³⁶⁰ Our decision to eliminate UNE Narrowband Voice-Grade Loop obligations furthers the Commission's ultimate goal of

³⁵³ See, e.g., *supra* Section III.A.2.; Puerto Rico Tel. Co. Comments at 19 (explaining that the numerous new technologies are becoming the preferred method to offer voice service), 19-20 (noting that "mobile services, VoIP services (including over-the-top offerings), and fixed wireless are all reasonable, reliable, and affordable alternatives to the TDM-based telephony services that used to dominate the voice service marketplace"); Verizon Comments at 22-23 (noting "[o]ver 90% of all U.S. households can obtain access to cable broadband as well as three wireless providers, demonstrating that competition has reached consumers living in the most far flung and high cost areas"); see also *Comptel v FCC*, Case No. 19-1164, Oral Argument of David P. Murray, Counsel for INCOMPAS, at 1:11:48 ("I can assure you, Your Honor, that CLECs are going into facilities-based competition. The one thing they are not doing, they're not going out and replicating copper loops that were deployed decades ago, the costs were recovered decades ago, it's not efficient.") (D.C. Cir. Sept. 14, 2020), https://www.youtube.com/watch?v=tIW8RuU_2uo.

³⁵⁴ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6508-09, paras. 11-12 (noting "[c]onsumers and businesses are rapidly transitioning away from legacy TDM switched access voice services to . . . an innumerable array of over-the-top voice applications.").

³⁵⁵ See *supra* paras. 22, 56; Verizon Comments at 22; USTelecom Comments at 41; Puerto Rico Tel. Co. Comments at 20.

³⁵⁶ See *Triennial Review Remand Order*, 20 FCC Rcd at 2552-55, paras. 34-36 (finding the wireless market sufficiently competitive for the Commission to decline to unbundle network elements to serve that market, i.e., where competition evolved without access to UNEs, the Commission was unable to justify imposing the costs of mandatory unbundling to promote competition).

³⁵⁷ *Id.* at 2616, para. 149 (emphasis added).

³⁵⁸ See USTelecom Comments at 40; Puerto Rico Tel. Co. Comments at 20 (asserting that as the incumbent LEC they have "no built-in advantage (much less dominance) over the numerous new technologies that are becoming the preferred method to offer voice service").

³⁵⁹ See Allstream Decl. ¶ 17; TPx Comments at 17; TPx Updated Decl. ¶¶ 26, 27.

³⁶⁰ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6505, para. 3, 6510-11, paras. 14-16, 6524, paras. 40-41 (finding that the availability of these UNEs at subsidized prices distorts competitors' incentives to build their own last mile facilities and the deployment of next-generation facilities; thus, hindering the Commission's policy goals); see also R Street Institute Comments at 10; *infra* Section III.F.

fostering the deployment of next-generation networks and services and consumers' migration to next-generation services.³⁶¹

88. *UNE Hybrid Loops.* Nationwide elimination of UNE Hybrid Loop obligations is also appropriate because reasonably efficient competitors are not impaired without access to these UNEs—i.e., no reasonably efficient competitor would seek to enter today's voice-service market by using a loop solely capable of providing TDM service. The "widespread deployment of facilities-based alternatives" to the TDM-based services provided over UNE Hybrid Loops³⁶² and the fact that intermodal competition for voice services is so advanced indicates there is no basis for competitors to claim they are impaired without access to TDM-based services, particularly those provided over UNE Hybrid Loops.³⁶³ Further, competitive LECs no longer face significant barriers to entering the voice market without access to the TDM-based services provided over UNE Hybrid Loops owned by incumbent LECs.³⁶⁴ Competitors have come to dominate the voice service marketplace using technologies that do not include TDM-based voice.³⁶⁵ The declining amount of incumbent LEC voice subscriptions and the *de minimis* demand for the TDM-based services provided over UNE Hybrid Loops demonstrates that access to these UNEs are not necessary for a reasonably efficient competitor to enter today's voice-service marketplace.³⁶⁶ For these reasons, no reasonably efficient competitor would seek to enter today's voice service market by using a loop solely capable of providing TDM service, just as we find with respect to UNE Analog Loops. Rather, such an entrant using its own facilities would provide any of a number of newer technologies and services capable of providing both voice and broadband services, or provide over-the-top service relying on other providers' broadband networks.³⁶⁷ Moreover, eliminating access to the TDM capabilities of UNE Hybrid Loops will reduce potential delays to the TDM-to-IP transition and will promote broadband deployment that will benefit American consumers and businesses, supporting important goals of the Act.³⁶⁸

89. *Grandfathered UNE 64 kbps Voice-Grade Channel Over Fiber Loops.* We also eliminate the remaining previously grandfathered UNE 64 kbps Voice-Grade Channel Over Fiber Loops obligation as reasonably efficient carriers are not impaired without continuing access to these grandfathered arrangements.³⁶⁹ The *de minimis* use of the grandfathered UNE 64 kbps Voice-Grade Channel Over Fiber

³⁶¹ See 47 U.S.C. § 1302(a); see also, e.g., 2018 Communications Marketplace Report, 33 FCC Red at 12729, para. 335; *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment et al.*, Third Report and Order and Declaratory Ruling, 33 FCC Rcd 7705 (2018) (*Third Wireline Infrastructure Order*); *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment et al.*, Declaratory Ruling and Third Report and Order, 33 FCC Rcd 9088 (2018) (*2018 Wireless Infrastructure Order*); *Announces the Establishment of the and Deployment Advisory Committee and Solicits Nominations for Membership*, Public Notice, 32 FCC Rcd 1037 (2017) (*2017 BDAC Public Notice*); *USTA II*, 359 F.3d at 580.

³⁶² AT&T Comments at 32.

³⁶³ Verizon Comments at 22; see also USTelecom Comments at 41; Puerto Rico Tel. Co. Comments at 20; AT&T Reply at 36.

³⁶⁴ See USTelecom Comments at 41; R Street Institute Comments at 10.

³⁶⁵ See USTelecom Comments at 40.

³⁶⁶ See CenturyLink Comments at 56; USTelecom Comments at 40; Puerto Rico Tel. Co. Comments at 19; Puerto Rico Tel. Co. Reply at 9; CenturyLink Reply at 48; Letter from Frederick E. Moacdieh, Exec. Director, Fed. Reg. and Legal Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308, at 3 (filed July 14, 2020) (Verizon July 14, 2020 *Ex Parte* Letter).

³⁶⁷ See, e.g., Puerto Rico Tel. Co. Comments at 19-20; Verizon Comments at 22-23; CenturyLink Reply at 48.

³⁶⁸ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6505, para. 3, 6510-11, paras. 14-16, 6524, paras. 40-41; see also CenturyLink Comments at 56; R Street Institute Comments at 10; Puerto Rico Tel. Co. Comments at 18; USTelecom Reply at 33.

³⁶⁹ CenturyLink Reply at 47.

Loops demonstrates that continued access to these UNEs is not necessary for a reasonably efficient competitor to enter today's voice-service marketplace.³⁷⁰ As with the remaining UNE Analog Loops and UNE Hybrid Loops, no competitive LECs or other party in the record has specifically indicated that any provider is relying upon these grandfathered UNEs to provide voice services today.³⁷¹ And even where some competitive LECs may continue to do so, this use does not overcome the compelling evidence of competitive voice alternatives that warrant a finding of non-impairment. In sum, the impact of eliminating these grandfathered UNEs is negligible given the lack of demand for this grandfathered UNE and the migration from legacy TDM voice service to newer technologies and services.³⁷² A reasonably efficient competitor would not look to UNE 64 kbps Voice-Grade Channel Over Fiber Loops as a reasonably efficient technology for entering the voice services marketplace today.³⁷³ Competitors are therefore not impaired without access to the remaining grandfathered UNE 64 kbps Voice-Grade Channel Over Fiber Loops. And eliminating these remaining channels that perpetuate outdated technology will further reduce potential delays to the TDM-to-IP transition, facilitating the goals of the Act.³⁷⁴

90. *Forbearance—Analog Loops. Section 10(a)(1).* As a separate and independent ground for eliminating UNE Narrowband Voice-Grade Loops requirements nationwide, we conclude that the remaining UNE Analog Loop obligations are unnecessary to ensure that the charges for voice services are just and reasonable³⁷⁵ for the same reasons set forth in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*.³⁷⁶ As there is no record evidence to the contrary, we find that the circumstances in non-price cap areas are indistinguishable from those in price cap areas with respect to these UNEs that can only be used to provision voice-grade service.³⁷⁷ Further, competitors have not specifically indicated that they are purchasing or relying upon these UNEs to provide voice services in non-price cap areas where other voice alternatives do not exist.³⁷⁸ In fact, very few of these UNEs still exist in non-price cap

³⁷⁰ See Verizon Comments at 23; CenturyLink Comments at 56; USTelecom Comments at 40; Puerto Rico Tel. Co. Comments at 19; Puerto Rico Tel. Co. Reply at 4; USTelecom Reply at 33; Verizon July 14, 2020 *Ex Parte* Letter at 2.

³⁷¹ See CenturyLink Reply at 47; Verizon July 14, 2020 *Ex Parte* Letter at 2.

³⁷² Puerto Rico Tel. Co. Comments at 19.

³⁷³ See *id.*

³⁷⁴ See CenturyLink Comments at 56; Puerto Rico Tel. Co. Comments at 18; CenturyLink Reply at 47-48; Verizon July 14, 2020 *Ex Parte* Letter at 3.

³⁷⁵ 47 U.S.C. § 160(a)(1).

³⁷⁶ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6516-17, para. 25 & n.95 (noting that “Section 10(a) requires that we find that rates are not only just and reasonable, but also not unjustly or unreasonably discriminatory” and finding that “to the extent our findings here protect against rates, charges, practices, and classifications that are not just and reasonable, it logically follows that it also protects against charges, practices, and classifications that are unjust and unreasonable”), 6516-17, para. 26. No party has advanced a theory under which incumbent LECs could engage in unreasonable practices and classifications regarding the remaining UNE Analog and UNE Hybrid Loops without also being able to charge unjust and unreasonable rates. See *id.* at 6516, para 25 n.95.

³⁷⁷ USTelecom Comments at 41 (asserting “there are no valid grounds to distinguish price-cap and rate-of-return areas in this regard, as both markets have been pried open by intermodal competition”); Puerto Rico Tel. Co. Comments at 18; USTelecom Comments at 32-33; see also Verizon Comments at 22-23 (noting the same competitive finding supports the elimination of these UNEs nationwide”).

³⁷⁸ See USTelecom Reply at 32 (noting there is “nothing in the record demonstrating that there is a current reliance” on UNE Narrowband Voice-Grade Loops); see also AT&T Comments, Docket 18-141, at 21-22 (rec. Sept. 5, 2018) (explaining that a very low percentage “of the digital DS0 UNE Loops sold by AT&T are in rural UNE zones.”); USTelecom Reply, Docket No. 18-141, Exh. A, Assessing the Impact of Forbearance from 251(c)(3) on Consumers, Capital Investment, and Jobs Report, at 7 (rec. Sept. 5, 2018) (nearly 92% of unbundled network elements provisioned by two of the four largest incumbent LECs went to urban and suburban areas, while only 7% were in

(continued....)

areas.³⁷⁹ The record shows virtually uniform support for eliminating the requirements for voice-grade loops due to the changing voice-services marketplace and lack of demonstrated need for these requirements.³⁸⁰ We previously forbore from UNE Analog Loop requirements for price cap incumbent LECs in light of the “overwhelming evidence demonstrating the increasing migration from legacy TDM voice service to IP-based and wireless voice communications capabilities provided by multiple intermodal providers.”³⁸¹ UNE Analog Loops in non-price cap areas are used to provide the exact same outdated TDM-based services as UNE Analog Loops in price cap areas.³⁸² Moreover, UNE DS0 Loops, which can also be used to provide voice service, will still be available in rural and urban cluster census blocks, which account for approximately 85% of the population residing in census blocks overlapping non-price cap study areas.³⁸³ We find that it is in the incumbent LECs’ interest to continue to serve wholesale customers.³⁸⁴ In fact, incumbent LECs have committed to offer commercial replacements in areas where UNE DS0 Loops will no longer be available.³⁸⁵ UNE DS0 Loops are provided over the very same facilities as UNE Analog Loops, only without the TDM equipment placed on the loops by the incumbent LEC to limit the loop to voice-grade service. We therefore find that forbearance from the remaining UNE Analog Loop requirements in non-price cap areas will not result in unjust or unreasonable voice service rates.

91. *Section 10(a)(2).* We also find that enforcement of the remaining UNE Analog Loop obligations is unnecessary for the protection of consumers for the reasons discussed above and in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*.³⁸⁶ Specifically, we find that forbearance will not result in unjust or unreasonable rates for consumers, nor will consumers risk losing service given that competitive LECs continue to have other means by which to offer consumers voice service.³⁸⁷ While a handful of commenters express concern about increased costs leading to increased

rural areas). Because of lack of record evidence of use of UNE Narrowband Voice-Grade Loops, we also reject the argument that we should expand the rural exemption to include these loops. *See* Cloud Communications Alliance Reply at 12.

³⁷⁹ Price-cap incumbent LECs account for over 99% of UNE loops provisioned to competitors. Staff analysis of data underlying FCC Form 477 preliminary data as of December 31, 2019, Tbl. 1, Reference Number 81; *see also* USTelecom Reply at 32-33 (noting this is because “many of the non-price cap areas are rural areas, and in those areas, [incumbent] LECs might not have elected to remove their rural exemption per Section 251(f),” and “[t]hus, many [incumbent] LECs in non-price cap areas might not even offer UNEs in the first place.”).

³⁸⁰ *See, e.g.,* GTA Comments at 2; R Street Institute Comments at 10; USTelecom Comments at 39-43; USTelecom Reply at 32. TPx contends that “[t]he Commission should evaluate whether the loss of analog voice loops makes competition and pricing conditions better or worse in the residential voice market before it de-lists additional DS0 UNEs based on a claimed competitive residential voice service market,” but does not specifically challenge extending unbundling relief to the remaining UNE Analog Loops. TPx Comments at 17.

³⁸¹ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6507-508, para. 9 (internal citations omitted), 6517, para. 26.

³⁸² *See* AT&T Comments at 32; USTelecom Reply at 33; AT&T Reply at 36; CenturyLink Reply at 48.

³⁸³ Staff calculations based upon FCC Form 477 data, as of December 31, 2019 and FCC Study area maps that have been overlaid on census block areas.

³⁸⁴ *See UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6524-255, para. 42 & n.148.

³⁸⁵ *See supra* Section III.A.2.

³⁸⁶ 47 U.S.C. § 160(a)(2).

³⁸⁷ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518, para. 27.

prices for consumers,³⁸⁸ the “explosion of competition [in the voice service market] amply protects consumers far better than narrow, technology-specific Commission dictates ever could.”³⁸⁹ Moreover, the majority of non-price cap incumbent LECs are rural LECs,³⁹⁰ most of which qualify for the rural exemption from all section 251(c) requirements, including UNE Analog Loops.³⁹¹ They therefore already have no obligation to offer their telecommunications services to competitive LECs at UNE prices while the rural exemption remains in place. Further, UNE DS0 Loops will remain available in urban clusters and rural areas after forbearance, and incumbent LECs have committed to provide commercial alternatives to UNE DS0 Loops after they are eliminated in urbanized areas.³⁹² Those UNEs not only afford the same voice capabilities as UNE Analog Loops, they have the added advantage of being capable of carrying broadband service.³⁹³ While retaining UNE DS0 Loops or UNE Narrowband Voice-Grade Loops impose costs on incumbent LECs, we find DS0s are worth keeping available in urban clusters and rural areas because of the benefits DS0s have for rural broadband. The narrowband-only capability of UNE Narrowband Voice-Grade Loops does not have the same benefits for consumers. Additionally, this forbearance continues to facilitate the TDM-to-IP transition, which benefits all consumers in the long term.³⁹⁴

92. *Section 10(a)(3).* Moreover, we find that forbearance from the remaining UNE Analog Loops requirements is consistent with the public interest³⁹⁵ for the same reasons we detailed in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*—that is, reducing reliance on outdated technology encourages competition based on next-generation networks and broadband services.³⁹⁶ Forbearance from outdated unbundling rules will promote next-generation infrastructure deployment by both incumbent LECs and competitive LECs that otherwise would have relied on UNEs.³⁹⁷ We reject

³⁸⁸ See Declaration of Douglas Denney, Allstream, ¶ 17 (filed Feb. 5, 2020) (Allstream Feb. 5, 2020 Decl.) (noting Allstream had to raise its prices for TDM voice services for all customers that were out of contract and for new customers); TPx Updated Shipley Decl. ¶ 26 (asserting functional substitutes “would result in an immediate and significant increase cost per POTs service”).

³⁸⁹ USTelecom Comments at 42.

³⁹⁰ See, e.g., Granite Comments at 11.

³⁹¹ 47 U.S.C. § 251(f); see also Declaration of Larry Antonellis submitted in support of Comments of Granite Telecommunications, LLC, WC Docket No. 17-84, at para. 38 (noting that Granite has “attempt[ed] to resell the traditional services of rural ILECs that are exempt from the avoided-cost resale requirement pursuant to Section 251(f)”).

³⁹² See *supra* Section III.A.2; INCOMPAS-USTelecom Compromise Proposal at 2; cf. TPx Updated Decl. ¶ 27 (“TPx had been planning to transition its Analog Loop customers to DS0 loops to maintain line-powered local exchange service. If the DS0 loops were no longer available, TPx’s POTs customers would be faced with diminished competition and price increases. Price is the only difference between Analog Loops used to provide POTs and commercial replacement products.”); INCOMPAS/NWTA Reply at 18-19 (“The likelihood of customers losing service also increases when ILECs are unlikely to offer commercial alternatives to UNEs like DS0s As the record reflects, ILECs are not negotiating or offering viable commercial alternatives to already-forborne UNEs such as voice-grade analog loops.”).

³⁹³ See *supra* Section III.A.2.

³⁹⁴ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518, para. 27; see also CenturyLink Comments at 56.

³⁹⁵ 47 U.S.C. § 160(a)(3).

³⁹⁶ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518, para. 28.

³⁹⁷ See *id.* at 6518-19, para. 29; see also USTelecom Comments at 43; GTA Comments at 5 (asserting that the elimination of these requirements “would simplify and expedite GTA’s transition to fiber, enabling GTA to better serve customers”); R Street Institute Comments at 10 (contending that “eliminating the unbundling requirements for voice-grade loops, the Commission can incentivize both ILECs and potential competitors to deploy new broadband infrastructure throughout the nation”).

arguments that we should refrain from forbearance because of a lack of commercial alternatives for voice-grade analog loops.³⁹⁸ Again, UNE DS0 Loops, which afford the same voice capabilities as UNE Analog Loops and are also capable of carrying broadband service, will remain available after forbearance in rural areas and urban clusters. Additionally, at least one major incumbent LEC is now offering commercial alternatives to UNE Analog Loops,³⁹⁹ and the other major incumbent LECs have agreed to offer commercial alternatives to UNE DS0 Loops once they are no longer available as UNEs.⁴⁰⁰ Finally, the Act requires us to protect competition, not competitors,⁴⁰¹ and we do not believe that the continued availability of UNE Analog Loops is necessary in light of the competitive nature of today's voice marketplace. We thus grant nationwide forbearance from the remaining UNE Analog Loop requirements as "it is no longer necessary to require . . . once-upon-a-time market-opening obligations that today amount to disparate regulatory burdens that frustrate the transition to advanced communications services offered over next-generation networks."⁴⁰²

93. *UNE Hybrid Loops.* We also forbear, on a nationwide basis, from our regulations requiring access to UNE Hybrid Loops. The fact that UNE Hybrid Loops are "used to provide the exact same legacy TDM-based services" that can be provided with UNE Analog Loops supports forbearance from this UNE requirement for the same reasons that we forbore from UNE Analog Loops in price-cap areas in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order* and in non-price cap areas today.⁴⁰³ There is broad record support for eliminating the requirements for UNE Hybrid Loops nationwide, and no party claims to use or rely on this UNE, nor does any party argue that the obligation should remain in place.⁴⁰⁴ Moreover, as the Commission found when it forbore from the 64 kbps voice channel over fiber in 2015, the requirement to provide access to unbundled legacy elements when incumbent LECs upgrade their copper loops to modern facilities can slow the transition to next-generation networks and services.⁴⁰⁵ Therefore, forbearance from the remaining UNE Hybrid Loop requirements meets the requirements of section 10(a) of the Act. We conclude that, because no carriers claim to use this UNE, pursuant to section 10(a)(1), forbearance from the UNE Hybrid Loop obligation will not result in unjust or unreasonable voice service rates, and we also find that enforcing the UNE Hybrid Loop obligation is unnecessary for the protection of consumers pursuant to section 10(a)(2).⁴⁰⁶ Forbearance from these obligations is also consistent with the public interest pursuant to section 10(a)(3) as it will remove an unnecessary regulatory burden and promote next-generation infrastructure deployment by both

³⁹⁸ See Allstream Feb. 5, 2020 Decl. ¶ 15 (asserting there is a lack of commercial alternatives for voice grade analog loops despite assurances from incumbent LECs that they would be offering commercial arrangements for unbundled elements that were forborne); TPx Comments at 34; TPx Reply at 24-25 ("Before providing more relief, the Commission should require incumbent LECs to submit information on the commercial replacements they offered to competitive LECs."); Uniti Fiber Comments at 14-15; INCOMPAS/NWTA Reply at 19.

³⁹⁹ See Letter from Craig J. Brown, Assistant General Counsel, CenturyLink, to Marlene H. Dortch, FCC, WC Docket No. 19-308, at 4 (June 15, 2020).

⁴⁰⁰ INCOMPAS-USTelecom Compromise Agreement at 2.

⁴⁰¹ *BDS Order*, 32 FCC Rcd at 3583, para. 290 (quoting *Bell Atlantic Mobile Systems, Inc. and NYNEX Mobile Communications Company*, Memorandum Opinion and Order, 12 FCC Rcd 22280, 22288, para. 16 (1997)).

⁴⁰² *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6507-508, para. 9 (internal citations omitted).

⁴⁰³ AT&T Comments at 32; see also AT&T Reply at 36; CenturyLink Reply at 48; USTelecom Reply at 33.

⁴⁰⁴ See GTA Comments at 2, 5; CenturyLink Comments at 56; Puerto Rico Tel. Co. Comments at 18-19; R Street Institute Comments at 10; AT&T Comments at 31-32; USTelecom Comments at 39-43; CenturyLink Comments at 56; AT&T Reply at 36; CenturyLink Reply at 48; Puerto Rico Tel. Co. Reply at 9; USTelecom Reply at 33; Verizon July 14, 2020 *Ex Parte* Letter at 3.

⁴⁰⁵ *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 65.

⁴⁰⁶ 47 U.S.C. § 160(a)(1)-(2).

incumbent LECs and competitive LECs that otherwise would have relied on UNEs.⁴⁰⁷ We thus grant nationwide forbearance from the UNE Hybrid Loop requirements.

94. *Grandfathered UNE 64 kbps Voice-Grade Channel Over Fiber Loops.* We also conclude that nationwide forbearance from the requirement that competitive LECs continue to receive unbundled access to the previously grandfathered 64 kbps voice-grade channels over fiber loops is appropriate pursuant to the requirements of section 10(a) of the Act. The Commission forbore from this requirement on a nationwide basis for all incumbent LECs in 2015 but grandfathered the obligation as to existing UNE 64 kbps Voice-Grade Channels Over Fiber Loops.⁴⁰⁸ The record indicates that there are only a small number of grandfathered UNE 64 kbps Voice-Grade Channel Over Fiber Loops that are still being used.⁴⁰⁹ Indeed, no commenter argues this obligation should be preserved.⁴¹⁰ To the extent competitors still rely on the grandfathered 64 kbps voice-grade channel over fiber loops, the three-part forbearance standard would be met for the same reasons it is met with respect to the remaining UNE Analog Loops and UNE Hybrid Loops.⁴¹¹ Specifically, even if the cost for incumbent LECs to maintain the legacy equipment and systems is low,⁴¹² continuing to maintain and support this obligation solely to protect narrowband legacy voice service is no longer necessary to ensure just and reasonable rates or protect consumers in light of our prior findings about the state of the voice services marketplace and the *de minimis* use of these unbundled 64 kbps channels provisioned over fiber.

95. *Transition Period.* The *Notice* proposed a transition period of three years and sought comment on whether we should include a six-month period for new orders for all UNE Narrowband Voice-Grade Loops.⁴¹³ Based on record evidence that UNE Narrowband Voice-Grade use is *de minimis* and that no commenter has indicated new orders are being placed, we find a three-year transition period appropriate for these UNEs and is consistent with the *UNE Transport Forbearance Order* and the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, each of which provided three-year transition

⁴⁰⁷ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518-19, para. 29; see also CenturyLink Comments at 56 (asserting elimination of hybrid loops will “promote broadband deployment”); GTA Comments at 5 (asserting that the elimination of these UNE Hybrid Loops requirements “would simplify and expedite GTA’s transition to fiber, enabling GTA to better serve customers”).

⁴⁰⁸ *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6194, para. 66.

⁴⁰⁹ See, e.g., AT&T Comments at 31 n.100; Verizon Comments at 23-24 (both explaining the *de minimis* use of these unbundled 64 kbps channels provisioned over fiber on a stand-alone basis by competitors today); USTelecom Reply at 33; Verizon Reply at 16 n.41; Puerto Rico Tel. Co. Comments at 19 (noting “the impact of granting this relief would be negligible, as it does not lease any UNE Fiber Voice Channels”); Verizon July 14, 2020 *Ex Parte* Letter at 2.

⁴¹⁰ CenturyLink Reply at 47 (noting “none of the CLECs ask the Commission to maintain this requirement”).

⁴¹¹ We note the lack of clarity in Commission precedent as to the precise status of this grandfathering obligation and find that we need not resolve it in this Order because elimination is justified based on the fact that no commenters argue to retain the UNE obligations for these 64 kbps voice-grade channels.

⁴¹² See *UNE/Resale Notice*, 34 FCC Rcd at 11314, para. 60 & n.195 (citing *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.”)); cf. Verizon July 14, 2020 *Ex Parte* Letter at 2 (detailing the resources that are currently devoted to continuing to include “these outdated UNE inputs for which there is *de minimis* demand, if any” in their systems), 3 (asserting that although “the precise cost of maintaining outdated UNEs is difficult to quantify, it nonetheless diverts resources from developing and deploying next generation services that benefit customers and society at large”).

⁴¹³ *UNE/Resale Notice*, 34 FCC Rcd at 11325-26, para. 97.

periods,⁴¹⁴ “to fully ensure that current *and* potential competition plays its expected role” to ensure consumers currently using these services are not harmed,⁴¹⁵ 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.”⁴¹⁶ In other contexts, the Commission similarly has adopted a uniform transition period of three years to allow existing customers to facilitate their transition to alternative facilities or arrangements in other deregulatory actions.⁴¹⁷ We find 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.⁴¹⁸ Thus, competitive LECs must transition to alternative facilities or services within this three-year transition period that will begin on the effective date of this Order.

96. No commenters specifically argued for a longer or shorter transition period for UNE Narrowband Voice-Grade Loops. We disagree with commenters who made more general assertions that the transition period for these and other UNEs should be shorter than three years for existing customers.⁴¹⁹ We reason that three years is appropriate in this case to alleviate any potentially negative impact on previous investments in legacy customer premises equipment and service disruption.

97. We also disagree with commenters who made general assertions there should be a longer transition period to place new orders and for existing customers to continue services.⁴²⁰ UNE Narrowband Voice-Grade Loops are no longer an “integral part of the competitive landscape,”⁴²¹ and thus three years is sufficient to protect against service disruption,⁴²² based on the record evidence that these UNEs are not extensively leased or relied upon nationwide. We find that a period longer than three years is unjustified and not in the public interest as it does not coincide with the Commission’s policy goal of advancing next-generation networks and services.

98. As with all UNE relief, we recognize that the transition mechanism we adopt today is simply a default process, and carriers remain free to negotiate alternative arrangements superseding this transition period.⁴²³ Our transition mechanism also does not replace or supersede any commercial

⁴¹⁴ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5794-95, paras. 60-61; *UNE Analog Loop and Resale Order*, 34 FCC Rcd at 6515-16, paras. 23-24, 6525-26, paras. 44-46.

⁴¹⁵ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61.

⁴¹⁶ *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6516, para. 23.

⁴¹⁷ *BDS Order*, 32 FCC Rcd at 3533-34, paras. 166-70.

⁴¹⁸ See *UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6516, para. 24; *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61; see also Alaska Communications Comments at 6 (supporting an appropriate transition period for competitors currently purchasing UNEs); *infra* Section III.F.

⁴¹⁹ See AT&T Comments at 33-34; CenturyLink Comments at 65; Verizon Comments at 25-26; Frontier Reply at 14; AT&T Reply at 38; CenturyLink Reply at 49; Verizon Reply at 22 (all asserting the Commission should align this transition period with that of the *UNE Transport Order*, i.e., a deadline of August 2, 2022); see also CenturyLink Comments at 64; USTelecom Comments at 65-67; CenturyLink Reply at 49; USTelecom Reply at 37-39 (all contending an 18 month transition period is warranted); Puerto Rico Tel. Co. Comments at 22 (arguing six to twelve months is appropriate).

⁴²⁰ See INCOMPAS/NWTA Comments at 18-19; Clear Rate Comments at 3; INCOMPAS/NWTA Reply at 8-9; (both arguing a seven year transition plan would allow for an orderly transition away from loops); see also TPx Comments at 34-35 (asserting a transition of three to five years and six-month period for new orders is warranted); TPx Reply at 29-30; Sonic Decl. ¶ 8 (asserting a transition period of three years is insufficient).

⁴²¹ Clear Rate Comments at 3.

⁴²² INCOMPAS/NWTA Comments at 18-19.

⁴²³ *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.

arrangements carriers have reached for the continued provision of facilities or services.⁴²⁴ Therefore, we adopt a three-year transition of existing UNE Narrowband Voice-Grade Loops, commencing on the effective date of this Order.

B. Multiunit Premises UNE Subloops and Network Interface Devices

99. In the *Notice*, we proposed to eliminate UNE Subloops, including Multiunit Premises UNE Subloops, in the same geographic areas where we eliminated the underlying UNE Loop,⁴²⁵ and we take action consistent with that proposal as to UNE Copper Subloops above. Based on the record in this proceeding and in the interest of regulatory parity, however, we diverge from the proposal in the *Notice* as to Multiunit Premises UNE Subloops and find that competitors are no longer impaired without access to Multiunit Premises UNE Subloop obligations nationwide and that access to this stand-alone UNE is not necessary for competitors to deploy their own facilities. We also independently find that forbearance is warranted for Multiunit Premises UNE Subloops separate and apart from our impairment analysis. We further find that competitors are no longer impaired without access to the UNE Network Interface Devices (NID) requirement and consistent with the *Notice*, independently find that forbearance from this obligation is also appropriate because the record indicates that stand-alone NIDs are not necessary for competitive LECs to access potential customers.⁴²⁶ Therefore, we eliminate these unbundling obligations on a nationwide basis.

100. *Multiunit Premises UNE Subloops.* Subloops are portions of a loop or “smaller included segment[s] of an incumbent LEC’s local loop plant.”⁴²⁷ Competitive LECs generally order subloops with the intention of taking “the competitor all the way to the customer.”⁴²⁸ Our rules impose UNE obligations for two types of subloops—copper subloops, discussed above, and multiunit premises subloops.⁴²⁹ 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.”⁴³⁰ The rule states that 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 premise and the point of demarcation.⁴³¹ Unlike copper 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.⁴³² The Multiunit Premises UNE Subloop also includes any inside wiring owned and controlled by the incumbent LEC.⁴³³

⁴²⁴ *Id.*

⁴²⁵ *UNE/Resale Notice*, 34 FCC Rcd at 11316, para. 67. As discussed in the *Notice*, there are two types of UNE Subloops—the UNE Copper Subloop and the Multiunit Premises UNE Subloop. *Id.* at 11315, paras. 65-66.

⁴²⁶ *Id.* at 11321-22, para. 81.

⁴²⁷ *Triennial Review Order*, 18 FCC Rcd 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”).

⁴²⁸ *Id.* at 17195, para. 353 n.1066.

⁴²⁹ 47 CFR § 51.319(b)(1) (UNE Copper Subloop), (b)(2) (Multiunit Premises UNE Subloop).

⁴³⁰ *Triennial Review Order*, 18 FCC Rcd at 17187, para. 345, 17189-93, paras. 347-51, 17195-96, paras. 354-55.

⁴³¹ 47 CFR § 51.319(b)(2).

⁴³² *Id.*; see also INCOMPAS et al. Opposition, WC Docket No. 18-141, at 23 (rec. Aug. 6, 2018) (INCOMPAS et al. Aug. 6, 2018 Opposition) (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”).

⁴³³ 47 CFR § 51.319(b)(2).

101. *Impairment Analysis.* The record demonstrates that incumbent LECs “no longer have a unique competitive position in multiunit premises” and thus, the very reason for requiring incumbent LECs to provide Multiunit Premises UNE Subloops no longer exists.⁴³⁴ The Commission enacted these particular unbundling obligations to address issues related to facilities-based competitors accessing the customer’s location where access to the premises was controlled or managed by someone other than the customer.⁴³⁵ In 2003, the Commission explained that incumbent LECs had “first-mover advantages” with respect to access to customers in multiunit premises because of their prior exclusive access.⁴³⁶ This no longer holds true today.⁴³⁷ In fact, the incumbent LEC “frequently is not the ‘incumbent’ in the multiunit premise,” and “it is the owner of the property, and not the [incumbent] LEC or another provider, that typically controls access to the property.”⁴³⁸ Competitive LECs do not assert the contrary is true. Indeed, cable companies are often the incumbent provider in the MTE.⁴³⁹ Moreover, competitive LECs “can economically run their own high-capacity facilities to multiunit premises,”⁴⁴⁰ and the Commission’s rules prohibit LECs from entering into exclusive access contracts with the owners of commercial and residential multiunit premises.⁴⁴¹ Therefore, we find that there is no evidence that incumbent LECs face lower barriers to entry to serve multiunit premises than competitive LECs. As such, incumbent LECs “enjoy no particular advantage in deploying to [multiunit] premises”⁴⁴² and competitive LECs are no longer impaired without access to Multiunit Premises UNE Subloops.

102. INCOMPAS and NWTa assert that competitive LECs “serving MTEs face significant barriers to entry because of the many anticompetitive practices imposed by MTE owners and managers”—not incumbent LECs—and allude to these anticompetitive practices as “incumbent providers and MTE owners entering into sale-and leaseback agreements”—which are largely agreements between

⁴³⁴ See CenturyLink Comments at 57-58 (asserting the Commission should eliminate Multiunit Premises UNE Subloop obligations nationwide); Verizon Comments at 23-24 (asserting the Commission should eliminate Multiunit Premises UNE Subloop obligations nationwide); USTelecom Comments at 43-47; USTelecom Reply at 33-34; Puerto Rico Tel. Co. Reply at 9; see also ADTRAN Reply at 4 (contending that “[i]t makes no sense to impose different obligations on only one segment of the relevant market under the UNE construct – with its attendant pricing rules – particularly in light of the small (and declining) share of that market held by the ILECs”). Section 251(d)(2) mandates that the Commission consider “at a minimum” whether access to proprietary network elements is necessary and a competitor would be impaired without access to such network elements. 47 U.S.C. § 251(d)(2).

⁴³⁵ See *Triennial Review Order*, 18 FCC Rcd at 17190, para. 348.

⁴³⁶ See *id.*; see also CenturyLink Comments at 57-58.

⁴³⁷ USTelecom Comments at 45 (explaining this is due to the “increasing bandwidth demands, multiunit premises are increasingly served by OCn-capacity links” and that “[t]he Commission has never found impairment with respect to such links[,] [r]ather, it has noted that competitors can economically provision them, and face no disadvantage vis-à-vis ILECs in doing so”); CenturyLink Comments at 58.

⁴³⁸ CenturyLink Comments at 58 (explaining “[o]ver the past two decades, owners of multiunit premises have sought to ‘monetize’ access to their property by entering into ‘preferred provider’ agreements, such as bulk billing and exclusive marketing arrangements, with one or more providers” (citing Comments of CenturyLink, GN Docket No. 17-142, MB Docket No. 17-91 (rec. Aug.30, 2019)), therefore while a “preferred provider” may be an incumbent LEC, it “just as easily could be a cable provider, traditional CLEC, or ‘building LEC’ that focuses on serving such properties.”).

⁴³⁹ See, e.g., City and County of San Francisco Comments, GN Docket No. 17-142, at 5 (rec. Aug. 30, 2019); Wireless Internet Service Providers Ass’n Comments, GN Docket No. 17-142, at 2-3, 20 n.57, 21 n.60, 31 (rec. Aug. 30, 2019); Wireless Internet Service Providers Ass’n Reply, GN Docket No. 17-142, at 21-22 (rec. Sept. 30, 2019).

⁴⁴⁰ USTelecom Comments at iv; see also *id.* at 45.

⁴⁴¹ 47 CFR § 64.2500; see also USTelecom Comments at 45-46.

⁴⁴² USTelecom Comments at 45-46.

cable providers and building owners.⁴⁴³ This argument is not directed at incumbent LECs, nor does it demonstrate that incumbent LECs face lower barriers to entry than competitive LECs, and is therefore inapplicable in the UNE context.⁴⁴⁴ We find that this argument is more appropriately suited for our current MTE proceeding where many incumbent LECs are also calling for action related to what they claim are anticompetitive practices of MTE owners and incumbent providers, often cable providers.⁴⁴⁵

103. Granting relief from this stand-alone requirement will not disrupt any policy decisions that we may make in other proceedings examining competition in multiunit premises.⁴⁴⁶ Although competitive LECs have asserted that special barriers still exist to accessing multiunit premises,⁴⁴⁷ we find that concerns about access to multiunit premises should be and would be better addressed in the MTE proceeding, where we are considering ways to improve competitive broadband access to multiple tenant environments, and where any action we take would apply to a broader group of providers rather than only incumbent LECs.⁴⁴⁸ Indeed, the Commission has on multiple occasions broadened its rules prohibiting

⁴⁴³ INCOMPAS/NWTA Comments at 27-28. Indeed, most of the arguments against sale-and-leaseback arrangements in the MTE Docket contend that they are used by building owners and cable providers to circumvent the Commission's cable inside wiring rules, which only apply to certain video providers and not incumbent LECs. *See* Letter from Angie Kronenberg, Chief Advocate & General Counsel, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 16-138 et al., at 4 (filed Feb. 13, 2017); Fiber Broadband Ass'n Comments, MB Docket No. 17-91, at 15-16 (rec. May 18, 2017); Fiber Broadband Ass'n Comments, GN Docket No. 17-142, at 6-7 (rec. Aug. 30, 2019); Wireless Internet Service Providers Ass'n Comments, GN Docket No. 17-142, at 16-18 (rec. Aug. 30, 2019); *see also 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, 5705-06, para. 5, 5709-10, para. 13, 5717-18, para. 26 (2019) (*2019 MTE Declaratory Ruling and Notice*).

⁴⁴⁴ *See Promotion of Competitive Networks in Local Telecommunications Markets*, WT Docket No. 99-217, Report and Order, 23 FCC Rcd 5385, 5388-89, para. 9 (2008) (*2008 Competitive Networks in Local Telecomm's Markets Order*) (finding that cable companies' service offerings changed the dynamic for MTE competition which supported the removal of obstacles to facilities-based entry, i.e., the Commission's extension of the ban on exclusivity to residential MTEs); *see also* CenturyLink Comments at 58 (asserting incumbent LECs are often not the incumbent in the multiunit premises).

⁴⁴⁵ *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; Verizon Comments, GN Docket No. 17-142, MB Docket No. 17-91 (rec. Aug. 30, 2019); CenturyLink Comments, GN Docket No. 17-142, MB Docket No. 17-91 (rec. Aug. 30, 2019) (supporting Commission regulation of revenue sharing arrangements and other exclusive agreements between MTE owners and incumbent providers).

⁴⁴⁶ *See generally 2019 MTE Declaratory Ruling and Notice*, 34 FCC Rcd 5702; *see also 2008 Competitive Networks in Local Telecomm's Markets Order*, 23 FCC Rcd 5385; *Promotion of Competitive Networks in Local Telecommunications Markets 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) (*2000 Competitive Networks in Local Telecomm's Markets Order*) (banning common carriers from entering into exclusive access contracts with premises owners).

⁴⁴⁷ *See, e.g.,* INCOMPAS et al. Aug. 6, 2018 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.)).

⁴⁴⁸ *See, e.g.,* USTelecom Comments at 44 n.139 (asserting "[t]he MTE docket is the appropriate context in which to address issues arising from the power of building owners to control which provider or providers can offer service to tenants in their buildings"); CenturyLink Comments at 57-58 (explaining the "Commission should consider any new

(continued....)

providers from entering into exclusive building access agreements with MTE owners so that similar rules now apply to incumbent LECs serving residential and commercial properties, competitive LECs, and multichannel video programming distributors subject to section 628 of the Act.⁴⁴⁹ Any remaining barriers to accessing multiunit premises wiring are independent of accessing the Multiunit Premises UNE Subloop, and no commenters in this proceeding demonstrate that incumbent LECs maintain special advantages in multi-tenant environments today. We clarify that our findings today and our decision to eliminate the Multiunit Premises UNE Subloop requirement do “not in any way prejudice the distinct set of questions regarding the effect on competition of restrictions imposed by a building owner.”⁴⁵⁰

104. The record further supports nationwide elimination of Multiunit Premises UNE Subloops as only a *de minimis* number of multiunit premises subloops are currently being sold, especially on a stand-alone basis.⁴⁵¹ As there is already a lack of demand and usage, reasonably efficient competitors would not generally be impaired by lack of access to this UNE subloop. Moreover, no commenter has presented compelling evidence regarding the necessity of this stand-alone UNE.⁴⁵²

105. *Forbearance.* We also find that forbearance is warranted for Multiunit Premises UNE Subloops separate and apart from our non-impairment finding. As evidenced by the current record only a *de minimis* number of multiunit premises subloops are currently being sold, especially on a stand-alone basis.⁴⁵³ The record also supports forbearing from this requirement as it is economical for competitive LECs to run their own high-capacity facilities to MTEs.⁴⁵⁴ Moreover, incumbent LECs “at risk of losing revenue when traffic shifts from their facilities to competitive offerings will seek to preserve such revenues, in whole or in part, by offering commercial access to their facilities.”⁴⁵⁵ Sections 201 and 202 of the Act would also prohibit incumbent LECs from engaging in unreasonably discriminatory behavior.⁴⁵⁶ Thus, preservation of this UNE obligation is not necessary to ensure just, reasonable, and nondiscriminatory rates and terms per section 10(a)(1) of the Act.

106. The Commission’s rules prohibiting LECs from entering into exclusive access contracts with the owners of residential multiunit premises serves to protect consumers in accordance with section 10(a)(2) of the Act.⁴⁵⁷ Multiunit Premises UNE Subloops are also unnecessary to protect consumers

or amended rules in this area in Docket No. 17-142, to be applied uniformly to all providers”)); USTelecom Reply at 34; ADTRAN Reply at 1-4; *contra* INCOMPAS/NWTA Comments at 25, 27-28 (citing to the MTE docket asserting “CLECs serving MTEs face significant barriers to entry because of the many anticompetitive practices imposed by MTE owners and managers”); INCOMPAS/NWTA Reply at 27 (contending “[s]ignificant barriers to entry remain for CLECs seeking to deploy their own loops and transport fiber, including anticompetitive agreements barring building entry to MTEs”). The Commission found in the *Triennial Review Remand Order*, “it would be inappropriate to distort our unbundling analysis in an effort to solve alleged deficiencies in other aspects of our regulatory regime.” It thus left “building-specific impediments to be addressed in other Commission proceedings, or in other fora, as appropriate.” *Triennial Review Remand Order*, 20 FCC Rcd at 2623, para.163.

⁴⁴⁹ See, e.g., generally 2019 MTE Declaratory Ruling and Notice; see also 2008 Competitive Networks in Local Telecomm’s Markets Order; 2000 Competitive Networks in Local Telecomm’s Markets Order.

⁴⁵⁰ USTelecom Comments at 44 n.139.

⁴⁵¹ See Verizon Comments at 23-24 (explaining that “retaining unbundling obligations is unnecessary in the face of such minimal demand and the absence of market need”); Puerto Rico Tel. Co. Reply at 9; USTelecom Reply at 33-34; Verizon July 14, 2020 *Ex Parte* Letter at 2.

⁴⁵² See e.g., INCOMPAS/NWTA Comments at 27-28.

⁴⁵³ See Verizon Comments at 23-24; Puerto Rico Tel. Co. Reply at 9; USTelecom Reply at 33-34.

⁴⁵⁴ USTelecom Comments at 45-46.

⁴⁵⁵ *Id.* at 46.

⁴⁵⁶ 47 U.S.C. §§ 201, 202.

⁴⁵⁷ 47 CFR § 64.2500.

given their lack of use. We further find that retaining this requirement would not be in the public interest as it would contravene the Commission's and the 1996 Act's broadband deployment goals⁴⁵⁸—that is, “it would deter competitors from deploying their own facilities to reach the premises and ensuring durable competition for the business of its tenants.”⁴⁵⁹ Elimination of unbundling mandates will incentivize and promote new deployment by competitive LECs and broader commercial access to the incumbent LECs' facilities to thereby achieve lasting facilities-based competition consisted.⁴⁶⁰ Therefore, consistent with section 10(a)(3) of the Act, forbearing from Multiunit Premises UNE Subloops would serve the public interest. Accordingly, we find that forbearance from Multiunit Premises UNE Subloops meets the statutory requirements of section 10(a) of the Act.

107. *Network Interface Devices.* The network interface device, or NID, which is always located at the customer's premises,⁴⁶¹ is defined as any means of interconnecting the incumbent LEC's distribution plant to wiring at a customer premises location.⁴⁶² Apart from its obligation to provide the NID functionality as part of an unbundled loop or subloop,⁴⁶³ 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.⁴⁶⁴ An incumbent LEC must permit a requesting carrier to connect its own loop facilities to on-premises wiring through the incumbent LEC's NID.⁴⁶⁵ 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,⁴⁶⁶ or where a customer had no need for a duplicate NID.

108. *Impairment.* We find that reasonably efficient competitors are no longer impaired without access to the UNE NID requirement. Competitive and incumbent LECs have described substantially changed circumstances in the last two-plus decades such that this network element no longer serves any meaningful purpose. Competitive LECs have stated that “[a]s a practical matter, [they] do not purchase network interface device elements separate from unbundled loops.”⁴⁶⁷ Incumbent LECs are on record stating that there is “virtually no demand” for stand-alone UNE NIDs.⁴⁶⁸ AT&T even specifies that it sells no UNE NIDs, and “has not sold any in some time.”⁴⁶⁹ Competitive LECs have not indicated

⁴⁵⁸ See USTelecom Comments at 47 (asserting the “Commission and the courts have repeatedly held that preservation of unbundling mandates in the presence of competition disserves the goals of the 1996 Act by undermining such deployment incentives”).

⁴⁵⁹ USTelecom Comments at 46.

⁴⁶⁰ *Id.* at 46-47; see also ADTRAN Reply at 3.

⁴⁶¹ *Triennial Review Order*, 18 FCC Rcd at 17186, para. 343.

⁴⁶² 47 CFR § 51.319(c).

⁴⁶³ *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*.

⁴⁶⁴ 47 CFR § 51.319(c).

⁴⁶⁵ *Id.*; see also INCOMPAS et al. Aug. 6, 2018 Opposition, at 23-24. The NID is a terminal endpoint for loops. INCOMPAS Motion for Summary Denial, WC Docket No. 18-141, at 20 & n.80 (filed Aug. 6, 2018) (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”).

⁴⁶⁶ See *Triennial Review Order*, 18 FCC Rcd at 17196-97, para. 356.

⁴⁶⁷ INCOMPAS et al. Aug. 6, 2018 Opposition, at 24.

⁴⁶⁸ CenturyLink Comments at 64; see also Puerto Rico Tel. Co. Comments at 20, Verizon Comments at 23, USTelecom Comments at 58; Puerto Rico Tel. Co. Reply at 9; Verizon July 14, 2020 *Ex Parte* Letter at 2.

⁴⁶⁹ AT&T Comments at 33; AT&T Reply at 37.

that there are still cases where the NID is the sole means of accessing this customer premise's wire.⁴⁷⁰ The record demonstrates that continued access to these UNEs is not necessary for a reasonably efficient competitor to enter today's marketplace. As competitors LECs "acknowledge they are not impaired without access to stand-alone unbundled NIDs, there can be no argument that such access is necessary."⁴⁷¹

109. *Forbearance.* As proposed in the *Notice*, we also independently find that forbearance from the UNE NID obligation is appropriate because the record indicates that stand-alone NIDs are no longer necessary for competitive LECs to access potential customers. Stand-alone UNE NIDs no longer serve a meaningful purpose and demand for this UNE is non-existent. We find that the lack of stand-alone UNE NIDs indicates that forbearance from the obligation easily meets the statutory requirements of section 10(a) of the Act. Because carriers are not using this UNE, enforcement of the UNE NID obligation is not necessary to ensure just and reasonable rates or practices.⁴⁷² Nor is this obligation necessary to protect consumers, given its lack of use.⁴⁷³ Finally, because the UNE NID obligation consists of a regulatory burden that serves no beneficial purpose, forbearance from the requirement is consistent with the public interest.⁴⁷⁴

110. *Transition Period.* In the *Notice*, we proposed a uniform three-year transition period for all Multiunit Premises UNE Subloops and UNE NIDs. We adopt this three-year transition period for existing customers and no period for new orders, consistent with our proposal in the *Notice*. We find a three year transition period appropriate for the same reasons we did so in the *2019 USTelecom Forbearance Orders*.⁴⁷⁵ Based on record evidence regarding lack of usage or reliance on these UNEs and the fact that no commenter has indicated new orders are being placed for either of these UNEs, we find a three-year transition period is appropriate, and a timeframe for new orders to continue to be unnecessary. We find 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.⁴⁷⁶ We disagree with generalized arguments in favor of longer or shorter transition periods because we believe a three-year transition for existing UNEs allows competitive LECs to make alternative arrangements, without unduly slowing the transition away from these UNEs.⁴⁷⁷ Thus, competitive LECs must transition to alternative facilities or services within this three-year grandfathering period. The transition period will begin on the effective date of this Order.

⁴⁷⁰ *UNE/Resale Notice*, 34 FCC Rcd at 11322, para. 82; *see also Triennial Review Order*, 18 FCC Rcd at 17196-97, para. 356.

⁴⁷¹ USTelecom Comments at 58.

⁴⁷² 47 U.S.C. § 160(a)(1).

⁴⁷³ *Id.* § 160(a)(2).

⁴⁷⁴ *Id.* § 160(a)(3).

⁴⁷⁵ *See UNE/Resale Notice*, 34 FCC Rcd at 11325-26, paras. 97-98; *UNE Transport Forbearance Order*, 34 FCC Rcd at 5794-95, paras. 60-61 (finding that a three-year transition is appropriate "to fully ensure that current and potential competition plays its expected role" to ensure consumers currently using these services are not harmed); *UNE Analog Loop and Resale Order*, 34 FCC Rcd at 6515-16, paras. 23-24; 6525-26, paras. 44-46 (finding that a three-year transition is also appropriate 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."); *BDS Order*, 32 FCC Rcd at 3533-34, paras. 166-70; *see also supra* Section III.A.3.

⁴⁷⁶ *See UNE Analog Loop and Avoided-Cost Resale Order*, 34 FCC Rcd at 6516, para. 24; *UNE Transport Forbearance Order*, 34 FCC Rcd at 5795, para. 61; *see also* Alaska Communications Comments at 6 (supporting an appropriate transition period for competitors currently purchasing UNEs).

⁴⁷⁷ *See supra* Section III.A.3.

C. UNE Dark Fiber Transport

111. Consistent with our proposal in the *Notice*, we find that competitive LECs are not impaired without access to UNE Dark Fiber Transport at wire centers that are within a half mile of alternative fiber. The record supports this finding.⁴⁷⁸ Independently, we also forbear from our regulations requiring incumbent LECs to provide UNE Dark Fiber Transport from the same wire centers. To avoid stranding substantial investment in last-mile networks by competitive LECs, which provide numerous consumers with competitive advanced services over the facilities today that in many instances would not be replicable in the short and medium terms, we provide an eight-year transition period for existing UNE Dark Fiber Transport.

112. *Background.* Dark fiber transport, otherwise known as “interoffice dark fiber,” is fiber-optic cable deployed between incumbent LEC wire centers that has not been “lit” through the addition of optronic equipment that would make it capable of carrying telecommunications.⁴⁷⁹ The Commission’s unbundling rules require incumbent LECs to unbundle their interoffice dark fiber and make it available to a requesting carrier where the requested transport involves at least one Tier 3 wire center end point.⁴⁸⁰ Where obligated pursuant to our unbundling rules, the incumbent LEC is required to lease its unused, unlit fiber, subject to availability, allowing the competitive LEC to deploy its own electronics to light the dark fiber and provision last-mile service to end users served from the terminating wire center as if such dark fiber were part of its own fiber network.⁴⁸¹

113. The *Triennial Review Remand Order*, in setting the current unbundling requirements more than fifteen years ago, examined both actual competition and inferences that could be drawn about potential competition.⁴⁸² In analyzing potential competition, the Commission found that both the number of fiber-based collocators and a wire center’s service area’s business line count were indicative of actual and potential competition for transport.⁴⁸³ The Commission concluded at that time that unbundling was warranted for dark fiber transport originating or ending in Tier 3 wire centers⁴⁸⁴ because those routes “show a generally low likelihood of supporting actual or potential competitive transport deployment.”⁴⁸⁵ By contrast, the Commission found that unbundling was not required on other routes because a reasonably efficient competitor already had or could potentially deploy or obtain dark fiber transport.⁴⁸⁶

⁴⁷⁸ See, e.g., INCOMPAS-USTelecom Dark Fiber Compromise Proposal at 2; INCOMPAS July 19, 2020 *Ex Parte* Letter at 2; CenturyLink Comments at 63; USTelecom Comments at iv.

⁴⁷⁹ See *Triennial Review Remand Order*, 20 FCC Rcd at 2607, para. 133; see also *BDS Order*, 32 FCC Rcd at 3476-77, para. 35.

⁴⁸⁰ See 47 CFR § 51.319(d)(2)(iv).

⁴⁸¹ See *Triennial Review Remand Order*, 20 FCC Rcd at 2607-09, paras. 133-35; *UNE/Resale Notice*, 34 FCC Rcd at 11317, para. 70.

⁴⁸² *Triennial Review Remand Order*, 20 FCC Rcd at 2586-88, paras. 87-92.

⁴⁸³ *Id.* at 2625, para. 167.

⁴⁸⁴ For purposes of UNE Dark Fiber Transport, a Tier 3 wire center is any wire center that does not qualify as either a Tier 1 wire center (which has at least four fiber-based collocators or at least 38,000 business lines, 47 CFR § 51.319(d)(3)(i)), or a Tier 2 wire center (which has at least three fiber-based collocators or at least 24,000 business lines, 47 CFR § 51.319(d)(3)(ii)). 47 CFR § 51.319(d)(3)(iii); see also *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.”); *id.* at 2604, para. 123.

⁴⁸⁵ *Id.* at 2597, para. 111.

⁴⁸⁶ *Id.* at 2607-08, paras. 133-34.

114. In the *UNE Transport Forbearance Order*, we concluded that the presence of nearby competitive fiber creates a sufficiently dynamic marketplace for DS1 and DS3 transport, which protects competition and consumers and furthers the public interest.⁴⁸⁷ In that *Order*, the Commission forbore from UNE DS1/DS3 Transport obligations for price cap incumbent LECs at wire centers within a half mile of competitive fiber.⁴⁸⁸ To administer that forbearance, the Bureau released a list of approximately 11,000 Tier 2 and Tier 3 wire centers identified as having competitive fiber located within a half mile.⁴⁸⁹ The Commission concluded that the presence of alternative fiber within a half mile creates competitive marketplace dynamics, observing that a “facilities-based competitor within a half mile of a location solely served by an incumbent LEC sufficiently restrains incumbent LEC pricing.”⁴⁹⁰

115. In the *Notice*, we sought comment on our proposal to find 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.⁴⁹¹ The proposal used the same factual underpinning as the *UNE Transport Forbearance Order*, in which the Commission forbore from UNE DS1/DS3 Transport obligations for price-cap incumbent LECs at wire centers within a half mile of competitive fiber. However, unlike the *UNE Transport Forbearance Order*, which examined whether the presence of nearby competitive fiber protected competition and consumers and furthered the public interest,⁴⁹² the *Notice* observed that the impairment inquiry asks only whether a “reasonably efficient competitor within a half mile of alternative fiber” could either obtain such transport at competitive rates or by building its own network.⁴⁹³ We also sought comment on whether our observations about competitive fiber located within a half mile of wire centers in the DS1/DS3 transport market in the *UNE Transport Forbearance Order* were applicable to interoffice dark fiber and could support a reasonable inference of no impairment for competitors leasing UNE Dark Fiber Transport that are similarly situated.⁴⁹⁴ Lastly, we sought comment on whether to extend forbearance to UNE Dark Fiber Transport obligations for the same wire centers subject to our UNE DS1/DS3 Transport forbearance.⁴⁹⁵

116. *Impairment Analysis.* Based on the record before us, we conclude that competitive LECs are no longer impaired without access to UNE Dark Fiber Transport provisioned from wire centers within a half mile of competitive fiber.⁴⁹⁶ The Commission has long envisioned the use of UNEs by competitors

⁴⁸⁷ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5790-91, para. 52.

⁴⁸⁸ *Id.*

⁴⁸⁹ See *id.* at 5794, para. 59 n.195; *Wireline Competition Bureau Releases List of Common Language Location Identification Codes for Price Cap Incumbent Local Exchange Carrier Wire Centers Subject to UNE Transport Forbearance*, Public Notice, WC Docket No. 18-141, 34 FCC Rcd 6445 (WCB 2019).

⁴⁹⁰ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5793-94, para. 57; see also *BDS Order*, 32 FCC Rcd at 3468, para. 15, 3512-14, paras. 118-19.

⁴⁹¹ *UNE/Resale Notice*, 34 FCC Rcd at 11318-19, para. 73.

⁴⁹² *UNE Transport Forbearance Order*, 34 FCC Rcd at 5790-91, para. 52. The Commission also rejected arguments that nearby provider-owned fiber should not be treated as a competitive alternative for UNE DS1/DS3 Transport because other fiber providers are generally uninterested in providing competitive DS1/DS3 transport service and, in particular, cable providers are ill-suited or unwilling to provide such service due to the unique characteristics of their networks. *Id.* at 5797-98, para. 66. We found that the evidence competitive LECs relied on was outdated and failed to reflect continued fiber deployment, particularly BDS transport, in the past 15 years. *Id.* at 5797-98, para. 66 & n.215. We therefore determined that even if cable companies were unwilling to provide transport, the existence of such networks, which serve end users in the same vicinity as the competitor, is likely sufficient to temper price increases and result in reasonably competitive outcomes in the medium term. *Id.*

⁴⁹³ See *UNE/Resale Notice*, 34 FCC Rcd at 11318, para. 73.

⁴⁹⁴ *Id.* at 11318-19, paras. 73-74.

⁴⁹⁵ *Id.* at 11320, para. 77.

⁴⁹⁶ See *infra* para. 171.

as a stepping stone to deployment of their own facilities.⁴⁹⁷ 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.⁴⁹⁸ The record demonstrates that competitive LECs have in fact widely deployed facilities without the need for UNE Dark Fiber Transport. But while a competitive LEC may prefer UNE Dark Fiber Transport,⁴⁹⁹ “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.”⁵⁰⁰ Indeed, “[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.”⁵⁰¹ Thus, we ask only whether a competitive LEC could “provide the services that it seeks to offer,”⁵⁰² irrespective of whether it uses lit or unlit fiber, as we presume that a competitive LEC could “take advantage of existing alternative facilities deployment where possible.”⁵⁰³

117. Absent UNE Dark Fiber Transport, competitive LECs have been able to use alternatives such as commercial dark fiber, access to which has expanded greatly since we ordered UNE Dark Fiber Transport.⁵⁰⁴ Further, as we observed in the *Notice* and the 2017 *BDS Order*, competitive LECs have been deploying their own fiber facilities at an accelerating rate over the past two decades, a result of declining costs and increases in potential revenues due to growing demand.⁵⁰⁵ We expect, then, that even the data contained in the *BDS Order* underreports the deployment of competitive fiber today, as it has likely improved in the intervening years since the data was collected. Additionally, some competitive LECs have even deployed their own dark fiber transport to replace the unbundled transport leased from incumbent LECs.⁵⁰⁶

118. The rules we adopt today modernize our dark fiber unbundling requirements to reflect changes in the marketplace since 2004, when we last revised our UNE Dark Fiber Transport rules. At that time, the Commission limited the extent to which incumbent LECs were obligated to provide UNE Dark Fiber Transport by finding that, under the impairment standard, competitive LECs are not impaired

⁴⁹⁷ See *UNE Remand Order*, 15 FCC Rcd at 3700-01, paras. 6-7; *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.

⁴⁹⁸ *Triennial Review Remand Order*, 20 FCC Rcd at 2547, paras. 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; *UNE/Resale Notice*, 34 FCC Rcd at 11292-93, para. 7.

⁴⁹⁹ See CenturyLink Reply at 18.

⁵⁰⁰ *UNE/Resale Notice*, 34 FCC Rcd at 11319, para. 74.

⁵⁰¹ *Triennial Review Order*, 18 FCC Rcd at 17045, para. 97 (emphasis added); 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.

⁵⁰² 47 U.S.C. § 251(d)(2).

⁵⁰³ *Triennial Review Remand Order*, 20 FCC Rcd at 2547, para. 28.

⁵⁰⁴ See, e.g., AT&T Comments at 25; CenturyLink Comments at 61.

⁵⁰⁵ *UNE/Resale Notice*, 34 FCC Rcd at 11299-300, para. 22 & n.82; *BDS Order*, 32 FCC Rcd at 3482, para. 44.

⁵⁰⁶ See Declaration of Daniel Friesen, ¶ 16 (IdeaTek Decl.) (“IdeaTek has used dark fiber transport UNEs as an investment ladder to reach a point where we own our own fiber transport facilities and eventually abandon the need to rely on [incumbent LEC] infrastructure in some areas.”); Socket Decl. ¶ 8 (replacing some segments within its fiber-optic transport ring that rely on UNE interoffice dark fiber with its own interoffice dark fiber and will continue to do so as it expands); Declaration of Fletcher Kittredge, GWI, ¶ 16 (GWI Decl.) (in the past eight years, “GWI has replaced most dark fiber interoffice transport UNEs with dark fiber it has constructed itself or in partnership with others”); Uniti Fiber Comments at 2 (Uniti “uses UNE Dark Fiber Transport only so long as it needs to before it can build fiber transport”).

without access to UNE Dark Fiber Transport where both wire centers are classified as either Tier 1 or Tier 2 wire centers.⁵⁰⁷ As a result, the unbundling obligations for interoffice dark fiber only applied where at least one terminating end point is a Tier 3 wire center.⁵⁰⁸ Today, however, the record reflects that alternative fiber with respect to Tier 3 wire centers has expanded tremendously, indicating that competitive LECs are no longer impaired without the use of UNE Dark Fiber Transport where there is competitive fiber with a half-mile.⁵⁰⁹

119. While we observed in the Notice that stakeholders disagreed as to the relevance of UNE Dark Fiber Transport in the current marketplace and whether or not competitive LECs are impaired without its continued use,⁵¹⁰ the majority of commenters in the record now concede that competitive LECs are no longer impaired without access to new UNE Dark Fiber Transport.⁵¹¹ Incumbent LECs urge the Commission to find no impairment and contend generally that these UNEs are no longer justified.⁵¹² AT&T argues that “[t]hanks to the massive data collection in the BDS proceeding, . . . the Commission now has far more information about the actual extent of competitive transport deployment than it did in 2005” when it found no impairment for dark fiber transport *vis-à-vis* Tier 1 and Tier 2 wire centers.⁵¹³ AT&T observes that according to BDS data, “competitors have continued to deploy their own facilities in and near Tier 3 wire centers,” with “competitive supply at thousands of Tier 3 wire centers,” suggesting that a “reasonably efficient competitor *can* feasibly deploy its own facility to serve such wire centers.”⁵¹⁴

120. The record demonstrates that where alternative fiber exists within a half mile of a wire center, entry is possible—i.e., competing providers have been able to offer service to the area, irrespective of the technology they use. Because the impairment inquiry is technology agnostic, arguments as to the substitutability of dark fiber are irrelevant.⁵¹⁵ As we explained in the *Notice*, “[w]hile the Commission

⁵⁰⁷ See *Triennial Review Remand Order*, 20 FCC Rcd at 2576, para. 66, 2607-08, para. 134.

⁵⁰⁸ 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.

⁵⁰⁹ One commenter suggests that the Commission should also “consider expanding its rural exemption for all elements of its NPRM, should it adopt its proposals,” including UNE Dark Fiber Transport. Cloud Communications Alliance Reply at 12-13. However, as discussed below, neither the impairment inquiry nor the forbearance criteria distinguish as between rural and urban communities. While we may, for example, extrapolate from routes when examining impairment, and look to, e.g., consumer harm under forbearance, as we explain, the record demonstrates that UNE Dark Fiber Transport is no longer necessary—even in rural communities. Additionally, the fact that dark fiber may be useful for 5G, *see id.* at 10-11, ultimately has no bearing on either inquiry.

⁵¹⁰ *UNE/Resale Notice*, 34 FCC Rcd at 11320-21, paras. 78-79.

⁵¹¹ INCOMPAS-USTelecom Dark Fiber Compromise Proposal at 2.

⁵¹² See, e.g., Alaska Communications Comments at 6 (“[C]ompetition has greatly expanded throughout the study area and far more comprehensively into rural Alaska as well, with competitive facilities deployed in or near most wire centers. There no longer can be any justification for requiring Alaska Communications to continue to provide below-market UNEs on regulated terms in any area it serves”); CenturyLink Comments at 63 (“The presence of competitive fiber within a half mile of a wire center virtually ensures that both consumer and enterprise services are available from a provider other than the ILEC in the surrounding area, regardless of the availability of UNE dark fiber transport.”); USTelecom Comments at iv (“Use of unbundled dark fiber is extraordinarily uncommon, and where it is available, there typically exist ample competitive alternatives. Many CLECs themselves offer dark fiber on a commercial basis. Under these circumstances, competitors cannot be said to be impaired without unbundled access.”).

⁵¹³ AT&T Comments at 25.

⁵¹⁴ *Id.* at 26 (emphasis in original); *see also* CenturyLink Comments at 59-61, 63; Puerto Rico Tel. Co. Comments at 17; USTelecom Comments at 49-50.

⁵¹⁵ See *UNE/Resale Notice*, 34 FCC Rcd at 11319, para. 74 (“However, we do not propose to consider the substitutability of lit and dark fiber to be relevant in an impairment analysis.”).

has previously differentiated lit from dark fiber, 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.”⁵¹⁶

121. We disagree with commenters that argue that new UNE Dark Fiber Transport remains essential to entry even where alternative fiber exists.⁵¹⁷ Several competitive LECs have in fact used unbundled access to interoffice dark fiber and other UNEs to obtain a sufficient customer base within an incumbent LEC’s local market, thus generating enough revenue to eventually build a competing fiber network.⁵¹⁸ The use of UNE Dark Fiber Transport has then allowed many competitors to gradually deploy their own last-mile fiber networks to offer service to consumers, competing directly with incumbent LECs for market share.⁵¹⁹ These arguments fail to engage with the impairment standard, however. While UNE Dark Fiber Transport may have helped new entrants to *enter* the market at the time when we initially ordered unbundling, that does not bear on the argument of whether unbundling of dark fiber continues to be necessary today. Further, these commenters fail to demonstrate that where alternative fiber *is* available—lit or unlit—*new* entrants remain impaired. The existence of alternative fiber—regardless of the technology used—indicates that a reasonably efficient competitor can enter the market.⁵²⁰ Whether a new entrant uses commercial dark fiber or deploys their own network has no bearing on the fact that entry is economically feasible.

122. One commenter argues that the impairment inquiry cannot simply look at whether there is alternative fiber within a half mile of a wire center; rather, it contends that a more granular analysis of whether alternative fiber reaches the same destination is necessary to determine if entry into a particular market is economically feasible,⁵²¹ because switching to alternative fiber is otherwise not an option for existing providers.⁵²² However, the impairment inquiry only asks if a reasonably efficient competitor could enter the market, as evidenced here by the existence of alternative fiber. Whether these competitors then make their fiber commercially available for other providers is not at issue. One commenter has contended that the “presence of competitive fiber within a half-mile of a wire center provides no insight

⁵¹⁶ *Id.*

⁵¹⁷ Competitive LECs have claimed that unbundled dark fiber is essential to provisioning service, reaching new customers, and that alternative fiber is sometimes unavailable. *See, e.g.,* Sonic Decl. ¶¶ 12, 16-18.

⁵¹⁸ *See, e.g.,* Socket Decl. ¶ 8 (“Socket has built or is building a last-mile fiber-optic network in every wire center where it has collocated and obtained UNEs.”); INCOMPAS/NWTA Comments at 42 (“Through the stepping stone provided by UNEs, competitive providers’ fiber deployment have outpaced that of incumbents in many markets.”).

⁵¹⁹ *See* Sonic Comments at 25-26 (serving 41% of its customers over its own fiber network, with continued expansion of its network first with UNEs, then fiber deployment); IdeaTek Decl. ¶ 7 (deploying a fiber-to-the-home network in Andale, Kansas, after making a business case to deploy broadband based on the use of the incumbent LEC’s UNE Dark Fiber Transport); Windstream Comments at 11 (utilizing unbundled dark fiber transport to supplement and expand its existing metro fiber footprint where it is uneconomic to overbuild the incumbent LEC’s network).

⁵²⁰ One commenter argues that in considering the issue of alternative fiber, the Commission should differentiate between “commercially owned dark fiber and dark fiber funded and controlled by government entities, who do not typically make fiber commercially available,” and reiterates the argument that CLECs sometimes do not make their own dark fiber commercially available. NASUCA Reply at 6. However, even if some alternative fiber is government subsidized or controlled—no alternative data is advanced to suggest how much of it is—as explained above, whether or not such fiber is commercially available has no bearing on the analysis. Additionally, with respect to the issue of public safety, *see id.* at 7-8, no argument is made that eliminating UNE Dark Fiber Transport will create issues for, e.g., accessing 9-1-1, and we do not find that any such public-safety issue arises.

⁵²¹ Letter from Ronald W. Delsesto, Counsel, Uniti Fiber, to Marlene H. Dortch, Secretary, FCC, WC Docket 19-308, at 11 (filed July 28, 2020) (Uniti Fiber July 28, 2020 *Ex Parte* Letter).

⁵²² Uniti Fiber July 28, 2020 *Ex Parte* Letter at 11-12.

as to the economic viability of such fiber deployments.”⁵²³ However, the Commission may use proxies and draw inferences therefrom rather than analyzing every route individually.⁵²⁴ And we can and must also draw reasonable inferences about deployment by examining similar markets.⁵²⁵ Further, this alternative fiber suggests the existence of sufficient demand to justify entry absent dark fiber transport UNEs, and competitive LEC commenters ignore potential revenue opportunities despite highlighting hypothetical costs and barriers.⁵²⁶ Although commenters argue that *existing* networks would be harmed by eliminating UNE Dark Fiber Transport, largely due to reliance interests, we take into account such concerns in adopting a transition period. And while competitive LECs point to various success stories of the kind envisioned by the Commission when it unbundled dark fiber for Tier 3 wire centers,⁵²⁷ ultimately we must ask only whether providers are now impaired without access to it on an unbundled basis.

123. Further, incumbent LECs claim they see little demand for unbundled dark fiber from competitive LECs⁵²⁸ and argue that UNE Dark Fiber Transport constitutes a small proportion of available dark fiber transport overall.⁵²⁹ Verizon reiterates that it both uses and sells a *de minimis* amount of UNE Dark Fiber Transport.⁵³⁰ Incumbent LECs argue, conversely, that the marketplace for commercial dark fiber transport is thriving,⁵³¹ with AT&T explaining that it purchases a large amount of commercial dark

⁵²³ See *id.* at 12.

⁵²⁴ See *Triennial Review Remand Order*, 20 FCC Rcd at 2581-82, paras. 79-80; *USTA II*, 359 F.3d at 574-75. In so doing, however, Uniti Fiber claims that the Commission must evaluate routes that are “similarly situated with regard to ‘barriers to entry,’” and that “inferring no impairment in *all* areas where competitive fiber *may* be located within a half mile of the wire center” fails to satisfy the “nuanced approach to impairment demanded” by the courts. See Uniti Fiber July 28, 2020 *Ex Parte* Letter at 12 (emphasis in original). However, we need not analyze on a specific-route basis “when and by whom such competitive fiber was deployed, whether the fiber is actually used to provide service in that market, or of the remaining operational and economic barriers to transport deployment” as Uniti Fiber urges. Such a level of granularity would require a case-by-case assessment of impairment, an approach criticized by courts that have instead approved of examining “facilities deployment along similar”—not identical—“routes . . .” See *USTA II*, 359 F.3d at 574.

⁵²⁵ See *Triennial Review Remand Order*, 20 FCC Rcd at 2581-82, paras. 79-80; *USTA II*, 359 F.3d at 574-75 (“We do not see how the Commission can simply ignore facilities deployment along similar routes when assessing impairment.”).

⁵²⁶ See, e.g., *UNE Transport Forbearance Order*, 34 FCC Rcd at 5791-94, paras. 53-58 (discussing the economics of entry as it relates to interoffice transport and the reasonableness of assumptions about, among other things, the potential for extension of facilities and the barriers to deployment).

⁵²⁷ See, e.g., TelNet Decl. ¶ 16.

⁵²⁸ See CenturyLink Comments at 61-62 (UNE Dark Fiber Transport accounts for less than 1% of CenturyLink’s total demand for UNEs, with less than 4% of its dark fiber transport UNEs originating or terminating in rural areas); Puerto Rico Tel. Co. Comments at 17 (“First, the use of UNE Dark Fiber by CLECs already is very limited. Only one carrier in Puerto Rico leases UNE Dark Fiber, and it does so on a limited basis.”); USTelecom Comments at 50-52 (record evidence shows that use of UNE Dark Fiber Transport is extraordinarily uncommon in today’s marketplace); Verizon Comments at 25 (“[T] here is a minimal use of dark fiber UNEs”).

⁵²⁹ USTelecom Comments at 48; see also *id.* at 51 (“[unbundled incumbent LEC] dark fiber circuits accounted for an estimated 20,000 to 60,000 fiber miles – a tiny fraction of the total fiber miles in the United States”).

⁵³⁰ Verizon Comments at 25; see also Frontier Reply at 13 (“Frontier, like Verizon, has a *de minimis* amount of dark fiber UNEs purchased in its footprint.”).

⁵³¹ See USTelecom Comments at 51-52 (describing ample alternatives that typically exist where unbundled dark fiber is available, including commercial dark fiber or BDS transport (either TDM or IP-based) available for lease from various third parties, including incumbent and competitive LECs).

fiber transport outside its incumbent franchise areas.⁵³² According to USTelecom, the record evidence presented by competitive LECs shows their progress in replacing UNE Dark Fiber Transport with their own interoffice transport, further indicating that competitive LECs “have largely, if not entirely, moved on from reliance on these UNEs.”⁵³³ Additionally, use of UNE Dark Fiber Transport for provisioning service to rural areas appears minimal.⁵³⁴ This not only reinforces our finding of no impairment but also independently, when coupled with the Commission’s findings regarding the competitiveness of the market without reliance on UNEs, persuades us that unbundling should be eliminated pursuant to our “at a minimum” authority even assuming *arguendo* some level of impairment in light of the costs of unbundling.⁵³⁵

124. *Forbearance Analysis.* In addition to supporting our finding of non-impairment, the record independently compels us to forbear from our UNE Dark Fiber Transport requirements in the same wire centers. Forbearance is appropriate based on our analysis of the specific circumstances at issue.⁵³⁶ We find that the criteria for forbearance are met and therefore do so with respect to our regulations requiring incumbent LECs provide UNE Dark Fiber Transport from these wire centers.

125. *Section 10(a)(1).* We conclude that UNE Dark Fiber Transport obligations from Tier 3 wire centers with alternative fiber within a half mile are not necessary to ensure just and reasonable rates. We limit our forbearance only to those wire centers where alternative fiber is present within a half mile of the wire center, which creates market pressure to keep rates down.⁵³⁷ And given the incentives for providers, we expect those currently using UNE Dark Fiber Transport to either deploy alternative fiber themselves or to use commercially available dark fiber or other transport alternatives, which should further temper rates. We therefore conclude that unbundling obligations are no longer necessary from these wire centers to ensure just and reasonable rates.

126. *Section 10(a)(2).* We find that the evolving marketplace and the statutory and regulatory safeguards that work to ensure just and reasonable rates also ensure that consumers will not be harmed by forbearance from requiring UNE Dark Fiber Transport from wire centers within a half mile of alternative fiber. With the availability of alternative fiber offerings, incumbent LECs face pressure to constrain rates and to act to retain existing customers.⁵³⁸ Although not all alternative fiber is dark fiber, such a distinction is ultimately irrelevant to consumers: they are concerned about the end product, not the specific technology used for middle-mile transport.⁵³⁹ And while competitive LECs transitioning off of UNE Dark Fiber Transport may look to commercial dark fiber as an alternative, where no such alternative exists, we nevertheless anticipate that the timeframe provided for in our transition coupled with the incentives for competitive LECs to deploy their own network facilities as the record indicates they have been doing should ensure that consumers continue receiving service.⁵⁴⁰

⁵³² AT&T Comments at 27; *see also* USTelecom Comments at 50 (noting that CenturyLink has previously reported a dramatic increase in its purchase of dark fiber transport between 2015 and 2018, almost exclusively through arrangements with cable companies and competitive LECs) (internal citations omitted).

⁵³³ USTelecom Comments at 53.

⁵³⁴ CenturyLink, for example, claims that only “4% of [its] dark fiber transport UNEs originate or terminate in rural areas.” CenturyLink Comments at 62.

⁵³⁵ *See UNE Transport Forbearance Order*, 34 FCC Rcd at 5791-92, para. 54 (discussing the transport marketplace and competition more generally and the need to weigh the costs of unbundling in light of those considerations).

⁵³⁶ *Earthlink v. FCC*, 462 F.3d at 8.

⁵³⁷ *See UNE Transport Forbearance Order*, 34 FCC Rcd at 5796, para. 62.

⁵³⁸ *See id.*

⁵³⁹ *Supra* para. 121.

⁵⁴⁰ *See* AT&T Reply at 33; CenturyLink Reply at 30-31.

127. *Section 10(a)(3)*. Finally, we find that forbearing from UNE Dark Fiber Transport from these wire centers is in the public interest as it promotes the policy of ensuring the deployment of next-generation networks and services. Competition is the preferred method by which the Commission safeguards the public interest.⁵⁴¹ We have found that “disparate treatment of similarly situated competitors creates marketplace distortions that may harm consumers,”⁵⁴² and forbearance eliminates such distortions.⁵⁴³ Further, we expect that forbearance will promote deployment of a provider’s own fiber, thus facilitating deployment of additional next-generation networks.⁵⁴⁴

128. *Transition Period*. For competitive LECs currently offering services reliant on UNE Dark Fiber Transport, substantial costs, including sunk costs, have been incurred to use such facilities, including, for example, the deployment of fiber-based last-mile networks and enterprise connections, as well as the addition of expensive optronic equipment.⁵⁴⁵ These sunk investments in many cases would be rendered useless if a competitive LEC were forced off of UNE Dark Fiber Transport too quickly, and the record indicates that competitive LECs would be unable to continue serving some markets. We therefore grandfather existing UNE Dark Fiber Transport for eight years so as to avoid risking abandonment of services and stranding significant investments reliant on existing dark fiber. This timeframe strikes the appropriate balance between the competing interests of the various stakeholders as well as enjoys support by the majority of those stakeholders as reflected in the record today.⁵⁴⁶

129. Such a transition period for existing UNE Dark Fiber Transport avoids stranding significant investment by competitive LECs and negatively impacting their customers,⁵⁴⁷ including those in remote locations.⁵⁴⁸ Competitive LECs claim that a loss of UNE Dark Fiber Transport would result in abandoned service in such areas.⁵⁴⁹ Specifically, investment into fiber to the home and fiber rings may be

⁵⁴¹ See, e.g., *Triennial Review Order*, 18 FCC Rcd at 16984, para. 3; *Triennial Review Remand Order*, 20 FCC Rcd at 2535, para. 2; *UNE Transport Forbearance Order*, 34 FCC Rcd 5767; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd 6503.

⁵⁴² *UNE Transport Forbearance Order*, 34 FCC Rcd at 5796, para. 63.

⁵⁴³ Not only must the Commission consider whether forbearance will promote competition, but “[i]f the Commission determines that such forbearance will promote competition among providers of telecommunications services, that determination may be the basis for a Commission finding that forbearance is in the public interest” under section 10(a)(3). 47 U.S.C. § 160(b).

⁵⁴⁴ See *id.*

⁵⁴⁵ See, e.g., Digital West Decl. ¶¶ 13-14; GWI Decl. ¶ 16; IdeaTek Decl. ¶¶ 5-16; SnowCrest Comments at 4-5; Socket Decl. ¶¶ 8, 46-49; Sonic Comments at 19-20; TelNet Decl. ¶ 17; Uniti Fiber Comments at 1-3; Windstream Comments at 22-26.

⁵⁴⁶ INCOMPAS-USTelecom Dark Fiber Compromise Proposal at 2 (parties agreeing to an eight-year transition period). We have found such compromises reasonable and in the public interest. See *supra* para. 47.

⁵⁴⁷ Digital West Decl. ¶ 15; Mammoth Decl. ¶ 10; TEXALTEL Comments at 8; Windstream Comments at 26; INCOMPAS July 24, 2020 *Ex Parte* Letter at 5 (collecting replacement costs for UNE Dark Fiber Transport); Uniti Fiber July 28, 2020 *Ex Parte* Letter at 6, 14 (estimating it would take Uniti Fiber \$98 million to replace existing UNE Dark Fiber Transport with self-provisioned fiber transport).

⁵⁴⁸ IdeaTek Decl. ¶ 13; Socket Decl. ¶¶ 46, 49; Sonic Comments at 20.

⁵⁴⁹ See, e.g., Digital West Decl. ¶ 15 (“Ultimately, the impact of the loss of dark fiber UNEs would be to either abandon networks in small cities due to costs we cannot bear, stranding hundreds of thousands of dollars in existing investments, or redirect capital from expanding fiber networks in new cities to replacing the dark fiber UNEs, both of which would slow the deployment of broadband to new areas.”); Mammoth Comments at Cover Letter (“[T]he Commission’s proposal to remove dark fiber from the marketplace will impact more than half of Mammoth’s customers, which will require us to increase prices to our customers, abandon service to certain rural areas, and/or scale back our deployment plans if we are not able to secure funds through other means, such as federal broadband funding.”); Windstream Comments at 26 (“Windstream and other partial facilities-based providers face the very real possibility of market exit—and the abandonment of significant network investments—as the only viable option.”).

abandoned,⁵⁵⁰ and some recent awards of government support grants for broadband deployment (e.g., CAF II⁵⁵¹) rely on UNE Dark Fiber Transport for construction.⁵⁵²

130. Incumbent LECs, however, argue that UNE Dark Fiber Transport constitutes a small portion of their dark fiber transport overall.⁵⁵³ Because this unbundled element comprises such a minute portion of incumbent LECs' business, this suggests that a lengthier period than we adopt for other UNEs today would have a relatively smaller effect on incumbent LECs. And as we have explained, the "at a minimum" language in section 251(d)(2) allows the Commission to consider other factors "rationally related to the goals of the Act,"⁵⁵⁴ including deployment of broadband,⁵⁵⁵ access to which may be impaired. Given the relatively smaller cost to incumbent LECs, we thus find that permitting competitive LECs to continue using UNE Dark Fiber Transport will avoid potential waste and safeguard existing customers.

131. One commenter also argued that competitive LECs should only be allowed to maintain UNE Dark Fiber Transport subject to capacity limits.⁵⁵⁶ The commenter claimed that the Commission should "make clear that purchasers are limited to using [UNEs] for transport capacities of no more than the equivalent of 12 DS3s," claiming that in the *Triennial Review Remand Order*, "the Commission found that requesting carriers are *not* impaired without access to transport facilities above 12 DS3s on a given transport route."⁵⁵⁷ As such, they believe it would be inconsistent to allow competitive LECs to use dark fiber to "carry almost any capacity depending on the electronics the CLEC attaches to it," which they argue is a "severe anomaly in the Commission's unbundling rules."⁵⁵⁸

132. However, the rationale for limiting transport with respect to DS3s is inapplicable as applied to dark fiber. In the *Triennial Review Remand Order*, we set the 12-DS3 capacity limit to "establish a safeguard to limit access to a carrier that has attained a significant scale on such a route indicating that more than sufficient potential revenues exist to justify deployment"⁵⁵⁹ As INCOMPAS and NWTa explain, in so limiting transport capacities, we undertook an analysis of competitors' revenue potential—something commenters seeking capacity limitations fail to do here. And

⁵⁵⁰ Uniti Fiber Reply at 15.

⁵⁵¹ The Connect America Fund Phase II program is a part of the Universal Service High-Cost program designed to expand broadband and voice services to places where they are unavailable, and the Commission provides funding to subsidize new network infrastructure or upgrades. See *Connect America Fund et al.*, WC Docket Nos. 10-90 et al., Order on Reconsideration, 33 FCC Rcd 1380, 1381, para. 1 (2018).

⁵⁵² IdeaTek Decl. ¶ 5.

⁵⁵³ See, e.g., Frontier Reply at 13-14; Puerto Rico Tel. Co. Comments at 17; USTelecom Comments at 34, 48, 51; Verizon Reply at 2-3, 17-20.

⁵⁵⁴ *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; *UNE Remand Order* 15 FCC Rcd 3696, rev'd *USTA I*, 290 F.3d 415.

⁵⁵⁵ *Triennial Review Order*, 18 FCC Rcd at 16987, para. 4.

⁵⁵⁶ AT&T Comments at 28.

⁵⁵⁷ *Id.* (emphasis in original); see also Letter from Kristine Hackman, Vice President, Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308, at 2 (USTelecom July 14, 2020 *Ex Parte* Letter) (echoing AT&T's argument that the fact requesting carriers can carry "hundreds of gigabits of traffic" suggests "requesting carriers would have strong economic incentives to provision their *own* transport facilities").

⁵⁵⁸ AT&T July 13, 2020 *Ex Parte* Letter at 10; AT&T Comments at 28.

⁵⁵⁹ *Triennial Review Remand Order*, 20 FCC Rcd at 2607, para. 131.

unlike DS3s, dark fiber requires significant investment by competitive LECs to enable it to carry traffic, which also limits the amount of bandwidth that can be realistically transported.⁵⁶⁰

133. Many incumbent LECs argued for a short transition period for existing UNE Dark Fiber Transport of only a few years.⁵⁶¹ However, we agree with competitive LECs that argue that these timelines are too short under the circumstances.⁵⁶² For example, proponents of a longer transition timeframe argue that an abbreviated transition periods “downplay[] the costs of, and other barriers to, overbuilding existing, unused interoffice dark fiber transport routes,” which even over “the short period of a few years” can “easily run[] into the tens, if not hundreds, of millions of dollars.”⁵⁶³ In addition, we recognize that carriers may face other deployment issues, including state and local restrictions such as on rights-of-way,⁵⁶⁴ “attaching facilities to bridges or prohibitions on boring river levees,” as well as other “local terrain challenges,”⁵⁶⁵ at least in some areas dark fiber might not be easily replaceable in some areas in the short term.⁵⁶⁶ Considering these possibilities at the same time competitive LECs are transitioning to alternative solutions for unbundled loops that they may be relying on, the result could be that higher capacity advanced services may become unavailable in some areas where competitive LECs providing these services currently rely on UNE Dark Fiber Transport.⁵⁶⁷ Given the costs and time needed for deploying new replacement transport facilities at the same time these same competitive LECs are deploying alternative loop facilities, customers of these services could be forced to go without for potentially significant periods of time. Our longer transition period addresses this potential unintended consequence.

134. We do not believe that our eight-year transition period will significantly reduce incentives for continued deployment. Competitive LECs reliant on UNE Dark Fiber Transport have shown their propensity to deploy their own fiber as soon as they can to transition to their own network facilities and eliminate dependence on the incumbent LEC completely.⁵⁶⁸ We believe this transition timeframe will provide sufficient time for them to do so without unduly disrupting their customers and

⁵⁶⁰ INCOMPAS/NWTA Reply at 40. INCOMPAS/NWTA also claim that per-Mbps revenue has declined over time, and that the record does not provide an economic rationale for limiting the extent to which competitive LECs can upgrade the electronics attached to dark fiber for additional capacity. INCOMPAS/NWTA Reply at 41; *see also* Raw Bandwidth Reply at 3 (disputing AT&T’s characterization of the situation as a “severe anomaly,” arguing that dark fiber requires investments that make lit fiber incomparable and that the ability to transport large amounts of bandwidth over “spare” dark fiber does not discourage broadband investment).

⁵⁶¹ *See, e.g.*, AT&T July 13, 2020 *Ex Parte* Letter at 7; USTelecom July 14, 2020 *Ex Parte* Letter at 2-3; Puerto Rico Tel. Co. Comments at 21. Prior to agreeing to an eight-year transition period, various incumbent LECs or their representatives argued for transition periods as short as 18 months but no longer than three to five years. *See, e.g.*, AT&T July 13, 2020 *Ex Parte* Letter at 7 (arguing for three years but open to five years in order to reach a compromise); USTelecom July 14, 2020 *Ex Parte* Letter at 2-3 (arguing for 32 months but open to the possibility of a three-to-five year timeframe); CenturyLink Comments at 64-65 (arguing for 18 months); Verizon Comments at 25-26 (claiming three years is consistent with Commission precedent but that a shorter timeframe would be preferable).

⁵⁶² Digital West Decl. ¶ 14; INCOMPAS/NWTA Reply at 9; TEXALTEL Reply at 5.

⁵⁶³ Letter from John Nakahata & Henry Shi, Counsel, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308, at 3-6 (filed July 24, 2020) (INCOMPAS July 24, 2020 *Ex Parte* Letter).

⁵⁶⁴ *See* Uniti Fiber July 28, 2020 *Ex Parte* Letter at 8-10.

⁵⁶⁵ *See* INCOMPAS July 24, 2020 *Ex Parte* Letter at 5.

⁵⁶⁶ *See id.*; *see also* INCOMPAS/NWTA Comments at 9.

⁵⁶⁷ *See supra* para. 28.

⁵⁶⁸ *See* Sonic Comments at 7; INCOMPAS Reply at 3; Allstream Decl. ¶¶ 13-14; Digital West Decl. ¶ 7; IdeaTek Decl. ¶ 16; Mammoth Decl. ¶ 8; Socket Decl. ¶¶ 7, 79.

better advance broadband deployment than if these same competitors prematurely lost access to their existing UNE Dark Fiber Transport and instead withdrew from certain geographic markets entirely.

135. On the other hand, we do not believe indefinite grandfathering would be appropriate. Although some commenters convincingly argue that a longer period of time than the three years proposed in the *Notice* is necessary to transition off of UNE Dark Fiber Transport, they do not advance arguments that would suggest longer than eight years is needed.⁵⁶⁹ Instead, we agree with the Joint Parties' explanation of how their proposal "chart[s] a middle course that accommodates the various parties' needs."⁵⁷⁰ As the advocates of the compromise proposal state, this transition period recognizes "the fact that competitive LECs will simultaneously be impacted by transitions away from unbundled access to multiple elements integral to the operation of their networks, including DS0, DS1 and DS3 loops, in addition to dark fiber transport."⁵⁷¹ We therefore provide a transition period of eight years for UNE Dark Fiber Transport ordered prior to the effective date of this Order.

D. Operations Support Systems

136. In the *Notice*, we proposed to forbear from the UNE Operations Support Systems (OSS) obligations except as used to manage UNEs.⁵⁷² The record generally supports this approach, with the exception of local interconnection and local number portability where incumbent LECs maintain such databases.⁵⁷³ We find that competitors are not impaired without access to UNE OSS, except where carriers are continuing to manage UNEs and for purposes of local interconnection and local number portability. Independently, we forbear from applying UNE OSS requirements, except when unbundled OSS is used to manage other UNEs, local interconnection, and local number portability.

137. Under our current rules, incumbent LECs must offer nondiscriminatory access to their operations support systems, or OSS, for qualifying services on an unbundled basis.⁵⁷⁴ OSS consists of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information.⁵⁷⁵ OSS is used to provision other UNEs, and it is also a

⁵⁶⁹ See, e.g., World Net Sept. 24, 2020 *Ex Parte* Letter at 1 (asserting that the Commission should indefinitely grandfather existing UNE Dark Fiber Transport in Puerto Rico because of the risk of "stranding significant amounts of competitive facilities investment," but not explaining why eight years or another significant period of time would be insufficient to obtain alternative transport). Although INCOMPAS and the NWTa have previously argued that "no transition period would be able to offset the harms to consumers and fiber deployment," claiming some UNE Dark Fiber Transport "is irreplaceable," INCOMPAS/NWTa Reply at 9, INCOMPAS itself contends that recognizing the benefits of UNE Dark Fiber Transport and the challenges of transitioning therefrom is not itself an argument for "permanent grandfathering." See INCOMPAS July 24, 2020 *Ex Parte* Letter at 5. Meanwhile, competitive LECs have variously offered arguments for why incumbent LECs' proposals are insufficient, or in favor of longer timeframes for UNEs generally, e.g., of seven years minimum. Clear Rate Comments at 3; INCOMPAS/NWTa Comments at 18.

⁵⁷⁰ INCOMPAS-USTelecom Dark Fiber Compromise Proposal at 5; see also *infra* paras. 171-72.

⁵⁷¹ INCOMPAS-USTelecom Dark Fiber Compromise Proposal at 4 n.12.

⁵⁷² *UNE/Resale Notice*, 34 FCC Rcd at 11322-23, paras. 83-85. The *Notice* did not propose to eliminate unbundled access for 911/E911 databases. Thus, UNE OSS obligations remain for accessing 911/E911 databases for any requesting carrier regardless of any Commission action herein providing UNE OSS relief.

⁵⁷³ Alaska Communications Comments at 5; AT&T Comments at 33; CenturyLink Comments at 64; Puerto Rico Tel. Co. Comments at 20; USTelecom Comments at 57-59; AT&T Reply at 37-38; CenturyLink Reply at 49; Puerto Rico Tel. Co. Reply at 3, 9; USTelecom Reply at 32, 34; INCOMPAS-USTelecom Compromise Proposal at 4.

⁵⁷⁴ 47 CFR § 51.319(f).

⁵⁷⁵ *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.

separate stand-alone UNE that is used for interconnection and other purposes,⁵⁷⁶ including number porting.⁵⁷⁷ 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”⁵⁷⁸ and because competitive LECs providing these services are “impaired on a national basis without access to OSS.”⁵⁷⁹

138. *Impairment Analysis.* We find that competitors are not impaired without access to UNE OSS, except where carriers are continuing to obtain and manage UNEs and for purposes of local interconnection and local number portability.⁵⁸⁰ We find, based on the record, that UNE OSS is of little value when decoupled from UNE ordering and provisioning,⁵⁸¹ and that there is limited usage of this stand-alone UNE in today’s marketplace.⁵⁸² We agree with commenters that there is generally “no need to offer regulated unbundled access to OSS in any circumstance where the Commission has eliminated access to the corresponding unbundled network facilities,”⁵⁸³ except with respect to ordering local interconnection or number portability.⁵⁸⁴ As such, we find that the market conditions that warrant unbundling relief on the basis of non-impairment or forbearance above for UNE Loops of multiple types as well as UNE Dark Fiber Transport and other network elements also warrant unbundling relief here.⁵⁸⁵ We therefore conclude that this UNE is generally not necessary for a reasonably efficient competitor to

⁵⁷⁶ Cox Motion, WC Docket No. 18-141, at 6 & n.21 (filed Aug. 6, 2018) (citing *Triennial Review Order*, 18 FCC Rcd at 17335, para. 562, 17336, para. 564); INCOMPAS/NWTA Reply in Support of Cox Motion, WC Docket No. 18-141, at 4 (filed Sept. 5, 2018).

⁵⁷⁷ See Letter from Christine N. Sanquist, Jenner & Block, Counsel for Charter Communications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308, at 2 (filed Nov. 12, 2019) (stating that Charter uses OSS “to order number porting and manage listings in incumbent [LEC] directories.”).

⁵⁷⁸ *Triennial Review Order*, 18 FCC Rcd at 17334, para. 561.

⁵⁷⁹ *Id.* at 17335, para. 562.

⁵⁸⁰ We note that our impairment and forbearance findings apply to UNE OSS maintained *directly or indirectly* by an incumbent LEC—i.e., it makes no difference “whether the incumbent LEC maintains the OSS database itself or outsources the maintenance but retains control over the database.” Letter from Jennifer K. McKee, Vice Pres. & Assoc. Gen. Counsel, NCTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308, at 2 (filed Aug. 28, 2020).

⁵⁸¹ See, e.g., CenturyLink Comments at 64; USTelecom Comments at 59. NASUCA’s reply asserts the same arguments raised by NCTA and INCOMPAS, most of which are covered in the Compromise Proposal and adequately address their concerns. NASUCA Reply at 7; INCOMPAS-USTelecom Compromise Proposal at 4. NASUCA also asserts that OSS is used by competitive LECs to make “changes to directory listings” and eliminating the OSS UNE would “impair the ability of competitors to offer service and in doing so would harm consumers who would suffer from incomplete and delayed directory information.” NASUCA Reply at 7. To the extent NASUCA’s directory listing assertion is a stand-alone argument, it is not developed enough to respond to its alleged effects on consumer harm. Nor do the competitive providers which would use directory listings claim that losing unbundled access to such listings would harm them or their end-user consumers. And assuming *arguendo* that directory listings are important to competitive providers, which we do not concede, we find, consistent with our discussion below, that it is in the interest of incumbent LECs to provide assistance with directory listings as part of their wholesale services.

⁵⁸² AT&T Comments at 33; CenturyLink Comments at 64 (noting there is “virtually no demand” for UNE OSS in today’s marketplace); Puerto Rico Tel. Co. Comments at 20 (noting “the use of its OSS by CLECs has largely been limited to ordered UNEs” which is a “reflection of how limited the over UNE use has become in Puerto Rico” and “only one CLEC is using the gateway that Puerto Rico Telephone Company implemented to provide access to OSS”); USTelecom Comments at 59; Puerto Rico Tel. Co. Reply at 9.

⁵⁸³ AT&T Comments at 33.

⁵⁸⁴ See INCOMPAS-USTelecom Compromise Proposal at 4; NCTA Comments at 2-3; Sonic Reply at 17.

⁵⁸⁵ *Supra* Sections III.A.1, 3, III.C.

enter today's communications service marketplace, except for local interconnection and number portability.⁵⁸⁶ Moreover, we find that it is in the incumbent LEC's interest to offer necessary services, like OSS, when they provide commercial alternatives to UNEs or other wholesale products.⁵⁸⁷ As Sonic, a major purchaser of UNE Loops and Transport, explains, incumbent LECs "have to maintain ordering systems and will have to manage the sharing of facilities if they offer wholesale services."⁵⁸⁸

139. We decline to find lack of impairment with regard to UNE OSS used for interconnection and number portability, however, as the record indicates that UNE OSS still plays an important role with respect to these critical local competition tools. Some competitive LECs and cable providers raised network interconnection and number portability implications if this real-time electronic interface is not maintained.⁵⁸⁹ Consistent with these comments and the comments of the majority of the LEC stakeholders commenting on this issue recognizing the importance of preserving continued UNE OSS access for these purposes, we maintain the status quo of UNE OSS for purposes of local interconnection and local number portability.⁵⁹⁰

140. *Forbearance.* Consistent with the *Notice* and the record, we independently forbear from the stand-alone UNE OSS obligation, except for carriers continuing to obtain and manage UNEs and for purposes of local interconnection and local number portability where the incumbent LEC maintains such databases. Based on the record as discussed above and the fact that no commenter opposed forbearance, except with regard to number portability and interconnection,⁵⁹¹ we find that forbearance from the stand-alone UNE OSS obligation, except with respect to ordering local interconnection or number portability, meets the requirements of section 10(a) of the Act.⁵⁹² The very limited use of this network element in today's marketplace except for the purposes for which we continue to make it available and the fact we retain it where it is used to manage UNEs is sufficient evidence that this stand-alone UNE OSS obligation is not necessary to ensure either just and reasonable rates or the protection of consumers pursuant to sections 10(a)(1) and 10(a)(2).⁵⁹³ Moreover, the elimination of regulatory burdens that serve no purpose is consistent with the public interest pursuant to section 10(a)(3).⁵⁹⁴ For the same reasons discussed above, we decline to forbear with regard to its continued availability on an unbundled basis for local interconnection and number portability.

⁵⁸⁶ See AT&T Comments at 33; CenturyLink Comments at 64; USTelecom Comments at 57-59; AT&T Reply at 37-38; see also INCOMPAS-USTelecom Compromise Proposal at 4.

⁵⁸⁷ See INCOMPAS-USTelecom Compromise Proposal at 4.

⁵⁸⁸ Sonic Reply at 17-18; see also *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6524-255, para. 42 & n.148 (explaining that "commercial wholesale platform services will remain available to competitive LECs" just as incumbent LECs "continue to offer UNE-P replacement offerings more than 13 years after the [Triennial Review Remand Order] eliminated unbundled local circuit switching" (citing USTelecom Reply, Docket 18-141, at 33)).

⁵⁸⁹ See NCTA Comments at 1-3; INCOMPAS/NWTA Comments at 31; Socket Decl. ¶ 9; Verizon Comments at 23 n.73; INCOMPAS/NWTA Reply at 19-20; Sonic Reply at 17-18; CenturyLink Reply at 49; NASUCA Reply at 7. We find that the record demonstrates it is in the incumbent LECs interest to provide these necessary services on a wholesale basis and incumbent LECs have committed to do so.

⁵⁹⁰ INCOMPAS-USTelecom Compromise Proposal at 4.

⁵⁹¹ See Sonic Reply at 17.

⁵⁹² 47 U.S.C. § 160(a).

⁵⁹³ *Id.* § 160(a)(1)-(2); AT&T Comments at 33; CenturyLink Comments at 64; Puerto Rico Tel. Co. Comments at 20; USTelecom Comments at 59; Puerto Rico Tel. Co. Reply at 9.

⁵⁹⁴ 47 U.S.C. § 160(a)(3); USTelecom Comments at 59.

141. We note that elimination of OSS unbundling obligations, as specified above, will not adversely impact public safety.⁵⁹⁵ Unbundled access to 911 and E-911 databases will remain available and the *Notice* did not even propose to consider limiting access to this UNE,⁵⁹⁶ as will unbundled OSS requirements where UNEs are available and for purposes of local interconnection and local number portability. We find that the California Public Utility Commission's assertion that competitive LECs "may struggle to resolve maintenance and repair issues that ultimately could adversely affect an end-user's ability to reach emergency services" is misplaced as that concern relates to the maintenance of copper networks rather than OSS or unbundling generally and thus is not relevant to this proceeding.⁵⁹⁷ No commenter, including the competitive providers that use OSS or the California Public Utility Commission, specifically asserts that OSS is needed to resolve maintenance and repair issues, generally. Moreover, UNE OSS remains available to manage existing UNEs which includes aspects of maintenance and repair functions for such UNEs.⁵⁹⁸

142. *Transition Period.* The transition period for UNE OSS used to order and manage UNEs phased out by this Order naturally coincides with the transition periods adopted for each such UNE described above. Incumbent LECs indicate they will also provide commercial access to their OSS systems to requesting carriers in any area in which unbundled OSS functionality is no longer available for particular network elements because of unbundling relief, ensuring a seamless transition away from UNE OSS, availability that coincides with transition timeframes for unbundled network elements.⁵⁹⁹

E. Avoided-Cost Resale

143. The *Notice* proposed to extend the forbearance relief granted to price cap incumbent LECs for Avoided-Cost Resale requirements to non-price cap carrier incumbent LECs.⁶⁰⁰ We adopt this proposal and grant relief from all remaining Avoided-Cost Resale requirements. Section 251(c)(4) of the 1996 Act requires that incumbent LECs make available to requesting carriers at wholesale rates any telecommunications service they offer to their own non-carrier customers on a retail basis.⁶⁰¹ The record supports forbearing from this obligation for non-price cap incumbent LECs for many of the same reasons that justified forbearance from Avoided-Cost Resale obligations for price cap incumbent LECs.⁶⁰²

144. In August 2019, we granted price cap incumbent LECs forbearance from the Avoided-Cost Resale requirement based on "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" and given that "Avoided-Cost Resale requirements . . . serve only to prolong dependence on legacy TDM voice services rather than pave the way for meaningful facilities-based

⁵⁹⁵ See also INCOMPAS/NWTA Comments at 31; California PUC Comments at 5-6; INCOMPAS/NWTA Reply at 19-20; MITA Reply at 2; NASUCA Reply at 7-8; USTelecom Reply at 34; Michigan PSC Reply at 6 (all asserting the Commission should consider the impact on public safety).

⁵⁹⁶ 47 CFR § 51.319(e). The *UNE/Resale Notice* did not propose to modify the E911/911 UNE. See also INCOMPAS-USTelecom Compromise Agreement at 4.

⁵⁹⁷ California PUC Comments at 5.

⁵⁹⁸ As discussed above, we find that it is in the incumbent LEC's interest to offer associated services, like OSS, when they provide wholesale products.

⁵⁹⁹ INCOMPAS-USTelecom Compromise Proposal at 4; see also USTelecom Reply at 34 (stating that the "provision of OSS is mutually beneficial and will be maintained *voluntarily* via interconnection and other commercial agreements.").

⁶⁰⁰ See *UNE/Resale Notice*, 34 FCC Rcd at 11325, para. 92.

⁶⁰¹ 47 U.S.C. § 251(c)(4).

⁶⁰² *UNE/Resale Notice*, 34 FCC Rcd at 11325, para. 92; *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6523-30, paras. 38-55; see also *infra* Section III.F.

competition over next-generation networks providing advanced communications capability.”⁶⁰³ We followed that action by seeking comment in the *Notice* on whether there are any reasons why we should not extend that forbearance to non-price cap incumbent LECs.⁶⁰⁴ The record in response to the *Notice* does not provide any compelling reason to refrain from extending Avoided-Cost Resale forbearance herein to all incumbent LECs.⁶⁰⁵

145. As we found in the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, competitive LECs almost exclusively use Avoided-Cost Resale to provision legacy TDM voice service to business and government customers.⁶⁰⁶ In many cases, these resold legacy voice lines are used for redundancy, and not competitive entry or as a primary voice line for customers of these services.⁶⁰⁷ Moreover, TDM service will remain available for purchase by competitive LECs, just not at wholesale rates.⁶⁰⁸ According to Granite, the leading provider of Avoided-Cost Resale, the vast majority of TDM lines resold by competitive LECs are purchased via section 251(b)(1) resale⁶⁰⁹ and commercial agreements rather than via Avoided-Cost Resale,⁶¹⁰ and these options will remain available after forbearance from the Avoided-Cost Resale requirements. Commenters responding to our *Notice* do not provide any evidence that competitive circumstances are any different in non-price cap LEC service areas.

146. The obligations and responsibilities imposed on incumbent LECs by the 1996 Act were “designed to open monopoly telecommunications markets to competitive entry.”⁶¹¹ This carefully crafted design applies equally to UNEs and Avoided-Cost Resale. Granite, the primary commenter on this issue, asserts that the Commission conflated UNEs and Avoided-Cost Resale in granting forbearance from the latter in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*.⁶¹² When implementing section 251 of the 1996 Act, however, the Commission viewed Avoided-Cost Resale as an “important entry strategy for many new entrants, especially in the short term when they are building out their own facilities” and that “in some areas and for some new entrants . . . it will remain an important entry strategy

⁶⁰³ *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6523, para. 38.

⁶⁰⁴ See *UNE/Resale Notice*, 34 FCC Rcd at 11324-25, paras. 91-93.

⁶⁰⁵ Competitive LEC resellers’ customer base is almost exclusively made up of business and government customers. See, e.g., Granite et al. May 28, 2019 Reply at 15. As a result, forbearance from the Avoided-Cost Resale requirement will not impact mass market customers.

⁶⁰⁶ *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6523-24, para. 40.

⁶⁰⁷ See, e.g., Granite Comments at 5. But see Socket Declaration ¶ 10 (“This combination of UNEs, avoided-cost resold services, and Socket’s own fiber network is still extremely useful in reaching remote locations that only need voice services, especially when trying to serve all locations of multi-location customers. In many of the areas where we use avoided-cost resold services, the incumbent telco is the only option for wired voice service – a service that is still in high demand from customers.”).

⁶⁰⁸ See, e.g., 47 U.S.C. § 251(b)(1); USTelecom Comments at 61. As noted elsewhere in this Order, no actions we take today eliminate the availability of legacy TDM-based service. See *infra* paras. 152-54.

⁶⁰⁹ See 47 U.S.C. § 251(b)(1).

⁶¹⁰ See, e.g., Opposition of Granite Telecommunications LLC, WC Docket No. 18-141, at 25 (filed Aug. 6, 2018) (Granite Aug. 6, 2018 Opposition).

⁶¹¹ *First Local Competition NPRM*, 11 FCC Rcd at 14172, para 1.

⁶¹² Granite Comments at 9 (citing Brief of Petitioner, *COMPTEL d/b/a INCOMPAS v. FCC*, No. 19-1164, at 24 (D.C. Cir. Jan. 13, 2020); see also Midwest Ass’n of Competitive Communications Reply at 2-3. While one CLEC other than Granite did comment on Avoided-Cost Resale, it was in the larger context of its use of a “combination of UNEs, avoided-cost resold services, and [its] own fiber network” asserting that it uses Avoided-Cost Resale where the incumbent LEC is the only source of wired voice service. Socket Decl. ¶¶ 9-11.

over the longer term.”⁶¹³ The Commission further noted that “[R]esale will also be an important entry strategy for small businesses that may lack capital to compete in the local exchange market by purchasing unbundled elements or by building their own networks.”⁶¹⁴ Therefore, even at the time that Avoided Cost Resale was enacted, the Commission envisioned that new entrants would utilize the regulation only until they could deploy their own facilities. Indeed, for competitive LECs that engage in their own facilities-based deployments, Avoided-Cost Resale data suggests it is no longer, if it ever was, a particularly important entry strategy.⁶¹⁵ As we noted in the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, Avoided-Cost Resale was never intended to be the permanent business strategy it seems to have become for certain providers.⁶¹⁶ Granite can hardly be considered the type of “small business” that the Commission was referring to in 1996.⁶¹⁷ Nor are the commenters opposing forbearance from this requirement “new entrants”—Granite, for example, has been in business for nearly two decades and can hardly credibly claim Avoided-Cost Resale obligations in non-price cap service areas, or price-cap service areas for that matter, are necessary to sustain its existence in today’s exceedingly competitive voice services marketplace.⁶¹⁸ And even if it were, the Act does not protect specific competitors or business models where overwhelming evidence of pervasive competitive alternatives exist for consumers, including those that may currently take service from companies like Granite.⁶¹⁹

147. *Rural exemption.* The majority of non-price cap incumbent LECs are rural LECs,⁶²⁰ most of which qualify for the rural exemption from all section 251(c) requirements, including Avoided-Cost Resale.⁶²¹ They therefore have no obligation to offer their telecommunications services to competitive LECs at wholesale rates while the rural exemption remains in place. Indeed, competitive LECs such as Granite have admitted that they are unable to avail themselves of Avoided-Cost Resale in many rural areas because of the rural exemption.⁶²² As a result, maintaining Avoided-Cost Resale in non-price cap areas provides little to no benefit to competitive LECs whose business model relies primarily on resold

⁶¹³ *First Local Competition Order*, 11 FCC Rcd at 15954-55, para. 907.

⁶¹⁴ *Id.*

⁶¹⁵ See, e.g., Socket Decl. ¶ 9; see also generally Sonic Comments; Windstream Comments; Clear Rate Declaration; Allstream Declaration; Digital West Declaration; GWI Declaration. The majority of competitive LEC commenters did not even address Avoided-Cost Resale in their comments filed in this proceeding. See generally Sonic Comments; Mammoth Declaration; Mark Sollenberger Declaration, First Communications; Uniti Fiber Comments; Windstream Comments. While WorldNet mentions resale in its comments in this proceeding, always as “UNEs and resale,” it never discusses why Avoided-Cost Resale is necessary. See generally WorldNet Comments. And the declaration submitted in support of WorldNet’s comments discusses why UNEs are necessary, but it makes no mention at all of resale. See generally Declaration of Maria Virella, Attach. B to WorldNet Comments.

⁶¹⁶ *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6523-24, paras. 40-41.

⁶¹⁷ See, e.g., Granite Telecommunications, About Us, <http://www.granitenet.com/About> (stating that Granite has annual revenues of \$1.5 billion).

⁶¹⁸ See, e.g., Bruce Rogers, *How Rob Hale’s Granite Telecommunications Turns Legacy Landlines Into a Growth Business* (Sept. 8, 2013), <https://www.forbes.com/sites/brucerogers/2013/09/18/how-rob-hales-granite-telecommunications-turns-legacy-landlines-into-a-growth-business/#6a0f95fd7666>.

⁶¹⁹ See *infra* para. 157. Indeed, even “if all CLECs were driven from the ... market,” the existence of “robust intermodal competition” from other providers warrants upholding the Commission’s decision. *EarthLink v. FCC*, 462 F.3d at 5, 11 (quoting *USTA II*, 359 F.3d at 582).

⁶²⁰ See, e.g., Granite Comments at 11.

⁶²¹ 47 U.S.C. § 251(f); see also Declaration of Larry Antonellis submitted in support of Comments of Granite Telecommunications, LLC, WC Docket No. 17-84, at para. 38 (Granite Decl.) (noting that Granite has “attempt[ed] to resell the traditional services of rural ILECs that are exempt from the avoided-cost resale requirement pursuant to Section 251(f)”).

⁶²² See, e.g., Granite Decl. ¶ 38.

services. In such areas, resale under section 251(b)(1) is the only regulatory resale-related mechanism available to them. Section 251(b)(1) obligations are not implicated by our actions here.

148. *Section 10(a)(1)*. We conclude that enforcement of Avoided-Cost Resale obligations is not necessary to ensure just and reasonable rates for voice-grade services.⁶²³ Competitive LECs such as Granite already purchase the majority of their resold services through either commercially negotiated agreements or section 251(b)(1) resale.⁶²⁴ Indeed, Granite has previously acknowledged that it purchases the majority of its resold services this way,⁶²⁵ arguing that it relies on the existence of Avoided-Cost Resale as leverage for negotiating better rates.⁶²⁶ We thus are unpersuaded by Granite's assertion that sections 251(b)(1), 201, 202, and 208 will not serve as sufficient regulatory backstops to ensure unreasonable and unreasonably discriminatory rates.⁶²⁷ As we stated in the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, "even if the rates paid by competitive LECs to resell voice service were to rise based on our grant of forbearance from Avoided-Cost Resale, there is no reason to believe that end-user rates will be unjust or unreasonable."⁶²⁸ Moreover, UNE DS0 Loops will remain available in rural and urban cluster census blocks,⁶²⁹ as will UNE DS1 and DS3 Loops in non-competitive counties,⁶³⁰ to the extent the incumbent LEC is not entitled to the rural LEC exemption. Competitive LECs thus will remain able to provision service to customers in those areas via means other than Avoided-Cost Resale to the same extent they are able to today.⁶³¹ Alternative voice services are also available from intermodal competitors,⁶³² and commercial replacements will be available where UNE

⁶²³ To the extent competition protects against rates, charges, practices, and classifications that are not just and reasonable, it logically follows that it also protects against charges, practices, and classifications that are unjust and unreasonable. Thus, to whatever extent the enforcement of section 251(c)(4) is not necessary to ensure just and reasonable rates, it necessarily follows that such enforcement prevents the opposite from occurring, that is, unjust and unreasonable rates. See *USTelecom 271/272 Forbearance Order*, 34 FCC Rcd at 2605 n.110.

⁶²⁴ See Granite Aug. 6, 2018 Opposition at 25; see also INCOMPAS/NWTA Comments at 5, 45-47; Granite Comments at 6-8. While TPx has not made a similar statement, it also has not provided specifics regarding how many of its 12,000 resold lines are purchased via Avoided-Cost Resale and how many via other avenues. See TPx Updated Decl. Moreover, TPx's comments themselves, versus the attached declaration, make no mention of Avoided-Cost Resale.

⁶²⁵ Granite Aug. 6, 2018 Opposition at 25.

⁶²⁶ See Granite Comments at 6-8. Avoided Cost Resale was enacted to help jumpstart competition in the market; it was not intended to serve as a leveraging tool for individual competitors when negotiating agreements.

⁶²⁷ See *id.* at 12; see also USTelecom Comments at 64.

⁶²⁸ *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6527, para. 48; see also *EarthLink v. FCC*, 462 F.3d at 6 (quoting *USTA II*, 359 F.3d at 581) ("Even if the FCC's judgment 'entails increasing consumer costs today in order to stimulate technological innovations ... there is nothing in the Act barring such trade-offs.'").

⁶²⁹ See *supra* Section III.A.2.

⁶³⁰ See *supra* Section III.A.1.

⁶³¹ Granite asserts that the Commission should retain Avoided-Cost Resale in those areas in which it retains UNE DS0 Loops because they are provided over the same facilities. See Granite Comments at 16. However, while many competitive LECs use UNE DS0 Loops as a stepping-stone to deployment of their own networks, as well as to provide high-speed broadband, those competitive LECs relying on Avoided-Cost Resale do so almost exclusively to provision only voice-grade services. Thus, while retaining UNE DS0 Loops furthers the Congressionally mandated goal of ensuring the provision of advanced services to all Americans, see 47 U.S.C. § 1302, Avoided-Cost Resale does not.

⁶³² See, e.g., USTelecom Comments at 63-64 (noting that "as of December 2018, cable providers offered service to OVER 90 percent of the U.S. population and 90 percent of households had access to cable services with at least 25 Mbps down speeds" and "per the latest Commission data as of 2017, 99.8% of all Americans had access to Mobile LTD service"); 2018 *Communications Marketplace Report*, 33 FCC Rcd at 12591-92, para. 40 & Fig. A-28.

Loops are being phased out.⁶³³ The availability of these other voice services serves to constrain incumbent LEC rates for services previously purchased via Avoided-Cost Resale.⁶³⁴

149. *Section 10(a)(2)*. We find that the evolving marketplace and the statutory and regulatory safeguards that work to ensure just and reasonable rates also ensure that consumers will not be harmed by forbearance from enforcement of the Avoided-Cost Resale obligation.⁶³⁵ Again, competitive LECs have made it clear that they purchase very few of the services they resell via Avoided-Cost Resale,⁶³⁶ and they will still have access to TDM-based services via commercial agreements and section 251(b)(1).⁶³⁷ While this may result in higher prices, this should serve to encourage end-user customers to migrate to next-generation services, thus helping to advance Congress's goal as stated in section 706.⁶³⁸ They also will still be able to purchase a variety of wholesale inputs, including UNE DS0 Loops in rural and urban cluster census blocks and via UNE DS1 and DS3 Loops in non-competitive counties to the extent they are available today. Even if these competitive LECs choose not to stay in the market via UNEs rather than Avoided-Cost Resale, other competitors may choose to enter these markets via UNEs. And customers will also have access to various intermodal alternative services, to which they have increasingly been migrating.⁶³⁹

150. *Section 10(a)(3)*. Finally, we find that forbearing from Avoided-Cost Resale obligations for non-price cap LECs is in the public interest as it promotes the important Commission policy of furthering the deployment of next-generation networks and services and encouraging the rapid transition to IP-based voice services and the benefits that accrue to the public at large from the widespread use of such services.⁶⁴⁰ Increased adoption rates of next-generation services provide incentives for incumbent and competitive LECs alike to expend precious resources on deployment of networks capable of supporting those services. To the extent end users are allowed to rely on the availability of legacy services, many will continue to do so and eschew the move to next-generation networks and services.⁶⁴¹

151. We reject Granite's argument that we cannot consider the public interest benefits of facilities-based competition and expediting the transition to next-generation networks in a forbearance

⁶³³ See *supra* Section III.A.

⁶³⁴ See *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6527, para. 48; see also USTelecom Comments at 62-63.

⁶³⁵ Competitive LEC resellers' customer base is almost exclusively made up of business and government customers. See, e.g., Granite et al. May 28, 2019 Reply at 15. As a result, forbearance from the Avoided-Cost Resale requirement will not impact mass market customers.

⁶³⁶ See, e.g., Granite Aug. 6, 2018 Opposition at 25 (filed Aug. 6, 2018); see also Granite Comments at 6-8.

⁶³⁷ See, e.g., USTelecom Comments at 64.

⁶³⁸ See *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6518, para. 28 (“[R]egulations that subsidize end-user customers to remain on legacy services and technologies run counter to the Commission’s goal of facilitating technology transitions to the long-term benefit of all consumers. As end users transition from TDM to new technologies and services as a result of the forbearance we grant today, they will experience the benefits the Commission has recognized as flowing from that transition. These include not only the benefits from the technologies themselves but also from the vibrant competition associated with next-generation [] services.”).

⁶³⁹ See, e.g., USTelecom Comments at 65.

⁶⁴⁰ See, e.g., *id.* at v (“[C]ompetition is best served by promoting facilities deployment, not by maintaining incentives for reliance on legacy networks.”), 65; see also *Advanced Methods to Target and Eliminate Unlawful Robocalls; Call Authentication Trust Anchor*, CG Docket No. 17-59, WC Docket No. 17-97, Declaratory Ruling and Third Further Notice of Proposed Rulemaking, 34 FCC Rcd 4876, 4901-02, para. 80 (2019) (noting that SHAKEN/STIR was developed for and works most efficiently with IP networks).

⁶⁴¹ See Granite Comments at 3-6; see also *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6523-24, paras. 39-41.

analysis.⁶⁴² Indeed, the D.C. Circuit has specifically approved of the Commission considering section 706 goals in a forbearance analysis.⁶⁴³ Moreover, section 10's public interest determination gives the Commission broad discretion as to what public interest factors it may consider in determining whether section 10(a)(3)'s prong has been met.⁶⁴⁴ Commenters raise no new arguments opposing forbearance from the Avoided-Cost Resale requirements to non-price cap LECs than they did in opposing forbearance from those requirements for price cap LECs, except to point to fewer alternatives being available in rural locales. We address their arguments in detail below. However, as we noted above, rural incumbent LECs are largely exempt from the Avoided-Cost Resale requirements.

152. Moreover, we are unpersuaded that extending forbearance from Avoided-Cost Resale requirements to non-price cap incumbent LECs will provide incentives for incumbent LECs to harm competition and consumers.⁶⁴⁵ This argument stems almost wholly from the claimed potential for increased rates that might make particular competitors such as Granite unable to continue providing service to their end-user customers via commercial service offerings that Granite has negotiated with certain incumbent LECs.⁶⁴⁶ As we have repeatedly reminded Granite and others, however, the 1996 Act's market-opening provisions were put in place to protect competition, not specific competitors or particular business plans.⁶⁴⁷ And nothing in this Order eliminates the availability of TDM-based services. Eliminating the subsidy for legacy services that make them available at a lower price, though, may lead to greater adoption of next-generation services and further Congress's goal and the Commission's mission of encouraging the deployment of advanced communications capabilities.⁶⁴⁸

153. *Line power.* We disagree with commenters who assert that Avoided-Cost Resale should remain available because of the purported benefits of line-powered service. Some commenters claim that "traditional" TDM service is line-powered and thus is more reliable than next-generation services that require backup power to function during power outages.⁶⁴⁹ We did not find this argument persuasive in the context of price cap areas,⁶⁵⁰ and we do not find it persuasive now as to non-price cap areas. To do otherwise would be inconsistent with incumbent LECs' ability to retire their line-powered copper

⁶⁴² Granite Comments at 9-10.

⁶⁴³ See *Earthlink v. FCC*, 462 F.3d at 8 ("Insofar as EarthLink suggests [section 10] does not permit the FCC to make the forbearance decision with an eye to the future—by accounting for section 706's goals and assessing likely market developments—the argument also fails. Nothing in [section 10] prohibits weighing such considerations in assessing the impact of forbearance on rates, consumers, and the public interest. Further, section 706 explicitly directs the FCC to 'utiliz[e]' forbearance to 'encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.' . . . The language of section 706 suggests a forward-looking approach and, reading the two statutory provisions together, we cannot fault the FCC for interpreting it to inform the § 160 analysis." (citations omitted)).

⁶⁴⁴ See 47 U.S.C. § 160(a)(3).

⁶⁴⁵ See, e.g., Granite Comments at 6-7.

⁶⁴⁶ See, e.g., *id.*

⁶⁴⁷ See, e.g., *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6524, n.142; *BDS Order*, 32 FCC Rcd at 3583, para. 290; USTelecom Comments at v, 4.

⁶⁴⁸ See 47 U.S.C. § 1302(a).

⁶⁴⁹ See, e.g., Granite Comments at 3 ("Customers continue to demand traditional TDM service for its unique features. Critically, traditional TDM service is line-powered, therefore it does not require fail-safes like back-up generators or batteries at the customer's location to operate during electrical outages."); INCOMPAS/NWTA Comments at 46 ("[F]or many customers, there are no adequate alternatives to provide the line-powered reliability they need."); California PUC Comments at 5-6. Granite specifically spoke of "traditional TDM service" as distinct from TDM service provided over fiber facilities that do not carry line power. See Granite Comments at 3-6.

⁶⁵⁰ See *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6527-28, para. 50.

networks and move their customers to fiber facilities without need for Commission authorization,⁶⁵¹ a process the Commission has worked to expedite and facilitate over the past three years.⁶⁵² Line-powered TDM service is available only to the extent that a carrier has not retired its copper loops, a business decision that is made by the carrier and not the Commission.⁶⁵³ As customer demand for TDM over copper continues to dwindle, incumbents are more likely to retire their copper and focus their resources on deploying next generation networks, at which point line power will not be as readily available. And the Commission has previously taken action to ensure that end users are aware of the need to take action to ensure that their non-copper-based phone service continues to function in the event of a power outage.⁶⁵⁴ It is also inconsistent with our goal of speeding the transition to next generation networks and services and our policy to discourage “reliance on outmoded legacy services.”⁶⁵⁵ To the extent certain commenters suggest that copper-based TDM service is its own product market, we reject these claims as unsupported by sufficient evidence. Moreover, we have already declined to find TDM-based services in general to be their own product market.⁶⁵⁶ We now decline to find the even more narrow categorization of copper-based TDM service to be its own product market. To find otherwise would be inconsistent with the Commission’s prior findings that copper retirements come within the purview of the section 251(c)(5) of the Act, requiring only that incumbent LECs provide adequate notice of network changes, and do not constitute a discontinuance of service under section 214(a) of the Act.⁶⁵⁷ Moreover, nothing of the sort is required by the Act, and indeed, finding that copper-based TDM service must be maintained would slow

⁶⁵¹ See 47 U.S.C. § 251(c)(5); 47 CFR §§ 51.325 *et seq.*; see also *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6524, para. 41.

⁶⁵² See *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Report and Order, Declaratory Ruling, and Further Notice of Proposed Rulemaking, 32 FCC Rcd 11128, 11141-59, paras. 31-79 (2017) (*Wireline Infrastructure First Report and Order*).

⁶⁵³ No actions taken in this Order remove the availability of either copper-based facilities or legacy TDM-based services. As we have previously stated: “Nothing about the rules at issue in this order require carriers to maintain line-powered copper loops—whether those loops may be retired is a subject of our copper retirement rules.” *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6520, n.116. However, incumbent LECs retiring their copper facilities must continue providing the same TDM-based service to their customers as before the retirement, just without line power, unless they also seek Commission authorization to discontinue that service. See 47 U.S.C. § 214(a); *Wireline Infrastructure First Report and Order*, 32 FCC Rcd at 11138, para. 24. And in such a situation, the incumbent LEC must then comply with our technology transition discontinuance rules. See 47 CFR §§ 63.60(i), 63.71(f)(2).

⁶⁵⁴ See generally *Ensuring Continuity of 911 Communications*, PS Docket No. 14-174, Report and Order, 30 FCC Rcd 8677 (2015).

⁶⁵⁵ *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6528, para. 52.

⁶⁵⁶ *Id.* at 6532, para. 62; cf. *BDS Order*, 32 FCC Rcd at 3472, para. 26 (“We find circuit- and packet-switched business data services that offer similar speed, functionality, and quality of service characteristics fall within the same product markets for the purposes of action taken here, even though there is evidence suggesting the two technologies have important distinctions. Indeed, the Commission has long considered TDM and packet-based business data services as functionally interchangeable at comparable capacities and has consistently included both types of business data services in its orders and forbearance decisions. Courts, in turn, have upheld the Commission’s view. Although commenters have pointed out some differences between these technologies, there is considerable evidence in the record indicating that the Commission’s view on sufficient substitutability of circuit and packet business data services still holds. We believe that legacy TDM business data services suppliers would be constrained by the threat of potential customer loss to packet-based business data services suppliers.”). Moreover, the Commission has previously noted in other forbearance contexts that “[p]erfect substitutability is not required.” *BDS Order*, 32 FCC Rcd at 3469, para. 20. And nothing compels us to apply the type of market power analysis used in the *Qwest Phoenix Order* to our forbearance here for Avoided-Cost Resale. See *Citizens Telecom v. FCC.*, 901 F.3d at 1008; *BDS Order*, 32 FCC Rcd at 3515, paras. 121-22; *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6531, para. 59; CenturyLink Reply at 16; USTelecom Comments at 26, 60-62.

⁶⁵⁷ See, e.g., *Wireline Infrastructure First Report and Order*, 32 FCC Rcd at 11138, para. 24.

the transition to advanced services, in contravention of section 706 of the 1996 Act.⁶⁵⁸ Forbearing from this outdated regulation will incentivize carriers to redirect resources to next-generation networks, thus benefiting the public by allowing for more advanced telecommunications capabilities.⁶⁵⁹ As the Commission previously stated, “[w]e will not impede the progress toward deployment of next-generation facilities for the many because of the reticence of an ever-shrinking few.”⁶⁶⁰

154. Regardless, when an incumbent LEC retires its copper, which it can do on 90-days’ notice and without a need to first obtain Commission authorization,⁶⁶¹ customers will still receive the same TDM-based service, albeit without the legacy feature of line power. At such point, when TDM service is provided over fiber, it requires the use of backup power to operate during power outages.⁶⁶² In addition, where copper loops still exist and incumbent LECs provide voice telecommunications services over those loops, copper-based TDM service will remain available for resale under section 251(b)(1) regardless of our forbearance herein. Competitive LECs in non-price cap areas will also be able to purchase these services pursuant to commercially negotiated agreements,⁶⁶³ which is how they currently purchase the majority of their resold services.

155. Opponents of forbearance also point to the occurrence of natural disasters to support the continued necessity of Avoided-Cost Resale, thereby limiting their argument to TDM-based services provided over copper rather than fiber facilities.⁶⁶⁴ However, those same natural disasters can and do lead to expedited copper retirements, meaning that the TDM-based services available for resale are no longer line powered.⁶⁶⁵ Indeed, copper tends to perform more poorly in many such situations whereas fiber is more resilient and faces lower outage risks from weather events and aging.⁶⁶⁶ The Commission

⁶⁵⁸ See 47 U.S.C. § 1302(a).

⁶⁵⁹ Cf. CenturyLink Reply at 44 (“Elimination of these outdated unbundling requirements will expedite consumer transition to more advanced networks and services, reduce the incentive for CLECs to continue to offer outdated legacy services, and create an opening for other facilities-based carriers, including cable providers, to offer more capable wholesale services.”).

⁶⁶⁰ *Wireline Infrastructure First Report and Order*, 32 FCC Rcd at 11142, para. 33.

⁶⁶¹ 47 U.S.C. § 251(c)(5); 47 CFR §§ 51.325 *et seq.*

⁶⁶² See *Wireline Infrastructure First Report and Order*, 32 FCC Rcd at 11147-48, para. 46; see also 47 U.S.C. § 251(b)(1) (“Each local exchange carrier has . . . the duty not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of its telecommunications services.”).

⁶⁶³ See 47 U.S.C. § 251(b)(1); see also *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6524-25, para. 42.

⁶⁶⁴ See Granite Comments at 5; INCOMPAS Comments at 46-47.

⁶⁶⁵ See, e.g., Pacific Bell Telephone Co. d/b/a AT&T California, Public Notice of Copper Retirement Under Rule 51.333, ATT20181224C.1, WC Docket No. 19-56 (filed Jan. 17, 2019) (Chico, CA due to wildfire); Pacific Bell Telephone Co. d/b/a AT&T California, Public Notice of Copper Retirement Under Rule 51.333, ATT20190314C.2, WC Docket No. 19-185 (filed May 8, 2019) (Paradise, CA due to wildfire); BellSouth Telecommunications, LLC d/b/a AT&T Alabama, Public Notice of Copper Retirement Under Rule 51.333, ATT20190326C.1, WC Docket No. 19-133 (filed Apr. 17, 2019) (Phenix City, AL due to F4 tornado); BellSouth Telecommunications, LLC d/b/a AT&T Florida, Public Notice of Copper Retirement Under Rule 51.333, ATT20181231C.1 Rev1, WC Docket No. 19-55 (filed Jan. 11, 2019) (Panama City, FL and Lynn Haven, FL due to category 4 hurricane); BellSouth Telecommunications, LLC d/b/a AT&T Tennessee, Public Notice of Copper Retirement Under Rule 47 C.F.R. § 51.333, ATT20200325C.1 Rev1, WC Docket No. 20-154 (filed May 22, 2020) (Davidson County and Wilson County TN due to EF2 and EF3 tornadoes).

⁶⁶⁶ See *Connect America Fund; High Cost Universal Service Fund*, WC Docket Nos. 10-90, 05-337, Report and Order, 28 FCC Rcd 5301, 5315, para. 33 WCB 2013) (“Although some price cap carriers may choose to extend broadband to unserved areas in the near term by shortening copper loops, rather than deploying FTTP, the most efficient wireline technology being deployed today in new builds is FTTP. Network construction costs are essentially the same whether a carrier is deploying copper or fiber, but fiber networks result in significant savings in
(continued....)

specifically adopted rules in 2017 expressly to accommodate such circumstances,⁶⁶⁷ as well as expedited copper retirements resulting from other circumstances outside the incumbent LEC's control.⁶⁶⁸ Assertions by the California PUC and Michigan PSC that we must consider public safety concerns⁶⁶⁹ are subject to this same response given that no actions taken in this Order remove the availability of legacy TDM-based services.⁶⁷⁰

156. *One stop shop.* Opponents of extending to non-price cap areas forbearance from Avoided-Cost Resale requirements point once again to their multi-location business customers. Because competitive LEC commenters opposing this relief have made no new arguments specific to non-price cap areas, we are not persuaded that the needs of these customers justify retaining this requirement for non-price cap incumbent LECs. First, rural LECs, which include many non-price cap incumbent LECs, are already exempt from the Avoided-Cost Resale requirements.⁶⁷¹ Additionally, to the extent particular non-price cap incumbent LECs are not exempt from section 251(c)'s requirements, competitive LECs will still be able to purchase these services via section 251(b)(1) resale or commercial agreements.⁶⁷² Finally, to the extent broadband is available to these locations, multi-location businesses can link their various locations in other ways, such as through a virtual private network via IP-based services.⁶⁷³

157. *VoIP unavailable.* The unavailability of broadband in certain areas and, thus, the unavailability of VoIP in those areas, does not render inappropriate extending forbearance from Avoided-Cost Resale requirements to non-price cap incumbent LECs, contrary to the assertions of certain commenters.⁶⁷⁴ First, approximately two-thirds of the Americans residing in rural areas and urban

outside plant operating costs over time.”); FCC, Consumer Advisory Committee, Meeting, 2013 WL 4417697 (Aug. 2 2013) (“Copper is subject to wear. It depreciates it. Water in the ground, most of it is now buried, will affect copper. It will deteriorate over time. Fiber is not susceptible in such a way.”); Reply Comments of Verizon and Verizon Wireless, GN Docket No. 12-353, at 3-4 (filed Feb. 25, 2013) (fiber networks are “generally more resilient than legacy copper systems” and “face lower outage risks from weather events and aging.”); *Wireline Competition Bureau Short Term Network Change Notification Filed by Verizon New England Inc. d/b/a Verizon Massachusetts et al.*, Report No. NCD-236 et al., Verizon Response (filed July 14, 2014) (“From the perspective of reliability, fiber is immune to many environmental factors that affect copper cable, and is less likely to experience outages during weather events, homeland security incidents, or other public safety emergencies. Fiber lines are generally more durable, do not corrode, have a much longer lifespan, and require fewer repairs than copper lines.”); Walter Johnson, The Disadvantages of Copper Wire (Mar. 13, 2018) (“One of the most serious disadvantages of copper wire is its susceptibility to corrosion, that is, oxidation. It has a shorter life expectancy than fiber optic cable as a result of this.”), <https://sciencing.com/disadvantages-copper-wire-5973732.html>; Samantha Flannery, How Does Weather Impact Fiber Optics (Feb. 27, 2019) (“Harsh weather conditions do not primarily affect fiber optic cabling. Due to fiber optics sending light beams down the thin strands of glass rather than electrical signals, these cables are not affected by weather changes. Rain, cold and extreme heat can affect traditional electrical signals but do not have any affect [sic] on fiber optics.”), <https://blog.westpennwire.com/how-does-weather-impact-fiber-optics>.

⁶⁶⁷ See *Wireline Infrastructure First Report and Order*, 32 FCC Rcd at 11157, paras. 71-74; 47 CFR § 51.333(g)(1); see also Comments of Verizon, WC Docket No. 17-84, at 27-28 (rec. June 15, 2017); Comments of CenturyLink, WC Docket No. 17-84, at 27-29 (rec. June 15, 2017).

⁶⁶⁸ See *Wireline Infrastructure First Report and Order*, 32 FCC Rcd at 11159, para. 77; 47 CFR § 51.333(g)(2).

⁶⁶⁹ See California PUC Comments at 4-5; Michigan PSC Reply at 5-6.

⁶⁷⁰ See *infra* para. 177 (addressing overarching public safety arguments).

⁶⁷¹ 47 U.S.C. § 251(f).

⁶⁷² See, e.g., Granite Aug. 6, 2018 Opposition at 25.

⁶⁷³ See Letter from Craig J. Brown, Asst. Gen. Counsel, CenturyLink, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-141, at 5 (filed July 1, 2019).

⁶⁷⁴ See, e.g., Granite Comments at 11.

clusters (combined) have access to broadband service from cable providers,⁶⁷⁵ and at least three wireless providers are available almost universally.⁶⁷⁶ For those areas that lack access to broadband, many incumbent LECs in non-price cap areas qualify for the rural exemption under section 251(f), as noted above.⁶⁷⁷ Moreover, TDM service will remain available for resale under section 251(b)(1) in those areas absent the incumbent LEC seeking to discontinue those services.⁶⁷⁸ Finally, the Commission continues its efforts to accelerate broadband deployment to unserved and underserved areas and close the digital divide.⁶⁷⁹ As a result, forbearing from the Avoided-Cost Resale requirements in non-price cap areas will have minimal effect.

158. *Deployment incentive.* As discussed in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, forbearing from Avoided-Cost Resale requirements will encourage the transition to next-generation services by leveling the playing field between next-generation services and legacy TDM-based services. We reject Granite's argument that forbearing from the Avoided-Cost Resale requirement acts as a disincentive for incumbent LECs to deploy additional next-generation facilities by making incumbent LECs' TDM-based services delivered over copper more profitable.⁶⁸⁰ There is no such evidence in the record, and indeed Granite's argument is at odds with incumbent LECs' retirement of copper loops and replacement with next-generation alternatives.⁶⁸¹ Moreover, the majority of customers in non-price cap areas have access to service by both cable and wireless providers,⁶⁸² which incentivizes incumbent LECs to replace their aging copper facilities with next-generation networks in order to remain competitive. We also reject Granite's argument that nationwide forbearance from the Avoided-Cost Resale requirement is inconsistent with our more granular treatment of UNE DS1 and DS0 Loops.⁶⁸³

⁶⁷⁵ FCC Form 477 data as of December 31, 2019.

⁶⁷⁶ 2018 *Communications Marketplace Report*, 33 FCC Rcd at 12561-62, para. 5, 12592, para. 41 & Fig. A-29, 12594, para. 45.

⁶⁷⁷ 47 U.S.C. § 251(f).

⁶⁷⁸ In order to discontinue service, the carrier would have to seek Commission authorization. 47 U.S.C. § 214(a). And one of the factors the Commission considers when reviewing discontinuance applications is the adequacy of the available replacement service(s). Indeed, the Commission specifically adopted rules applicable to the discontinuance of legacy TDM-based voice service that encompass just such situations. See 47 CFR §§ 63.60(i); 63.71(f)(2).

⁶⁷⁹ See, e.g., 2020 *Broadband Deployment Report*, 35 FCC Rcd at 9018-31, paras. 54-89 (describing Commission efforts to close the digital divide by removing barriers to investment, directing Universal Service Fund resources to broadband deployment in underserved areas, and expanding access to spectrum for 5G and other wireless services); 2018 *Communications Marketplace Report*, 33 FCC Rcd at 12729, para. 335; *Third Wireline Infrastructure Order*; 2018 *Wireless Infrastructure Order* (adopting small cell siting reforms); 2017 *BDAC Public Notice*.

⁶⁸⁰ See, e.g., Granite Comments at 8. While the Commission concluded otherwise in the *Qwest Phoenix Order*, that *Order* was adopted a decade ago, and the most recent 477 data and the record in this proceeding show that deployment of next-generation networks by both incumbent and competitive LECs has advanced significantly during that time. Moreover, contrary to the conclusion in the *Qwest Phoenix Order*, the Commission has since determined on more than one occasion that a single competitor "can be expected to produce more efficient outcomes than any regulated alternative." *Restoring Internet Freedom Order*, 33 FCC Rcd at 384-85, para. 126; see also *BDS Order*, 32 FCC Rcd at 3515, para. 121 ("We reject some commenters' characterization of the *Qwest Phoenix Order* as a blanket finding by the Commission that two competitors are insufficient to constrain incumbent LEC pricing. Although the Commission raised concerns about the competitive nature of a duopoly in that order, it did not categorically reject the possibility that a market with two competitors could represent sufficient competition to restrain supracompetitive pricing by providers. To the contrary, it specifically recognized that 'under certain conditions duopoly will yield a competitive outcome.'").

⁶⁸¹ See *supra* para. 155.

⁶⁸² See also USTelecom Comments at 63.

⁶⁸³ See Granite Comments at 13-15.

Both UNE DS1 and DS0 Loops can be used to provide broadband services, and in balancing the costs of regulation with the potential benefits that these loops can provide for broadband deployment and access where competition is less developed and entry is less likely, we determine above that these UNE Loops should remain available in limited areas.⁶⁸⁴ But Avoided-Cost Resale does not provide similar benefits for broadband deployment, and therefore we do not believe that it would benefit the public interest to retain Avoided-Cost Resale in any specific areas.

159. *Resale as backstop.* Commenters opposing forbearance from Avoided-Cost Resale requirements assert that the Commission has always retained those requirements when granting forbearance from unbundling obligations, such as in the *Qwest Omaha Order*.⁶⁸⁵ But *Qwest Omaha* was decided 15 years ago, at a time when the market was dramatically different and TDM service played a much larger role than it does today. In addition, the Commission's decision there was based on the specific facts of that case.⁶⁸⁶

160. In any event, UNE DS0 Loops will remain available in rural and urban cluster census blocks,⁶⁸⁷ and UNE DS1 and DS3 Loops will continue to be available in non-competitive counties,⁶⁸⁸ to the extent the incumbent LEC is not entitled to the rural LEC exemption. Moreover, we find today and similarly found in the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order* that the continued requirement to provide Avoided-Cost Resale slows the transition to next generation services and undermines our goal of sustainable facilities-based competition. Thus, unlike in *Qwest Omaha*, we no longer need to retain Avoided-Cost Resale to ensure voice competition because technology has changed and we know there is competition in the voice market.⁶⁸⁹ The circumstances at issue here thus are distinguishable from those at issue in prior UNE forbearance orders that retained Avoided-Cost Resale as a regulatory backstop and alternative to facilities-based competition.⁶⁹⁰

161. *Alternative Proposals.* Granite makes two proposals with respect to retaining the Avoided-Cost Resale requirement. First, it proposes preserving the requirement solely for business and government customers.⁶⁹¹ We have already disposed of this argument in the *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*.⁶⁹² Second, it proposes preserving the requirement where UNE

⁶⁸⁴ See *supra* Sections IIIA.1-2.

⁶⁸⁵ *Qwest Omaha Order*, 20 FCC Rcd at 19460, para. 89.

⁶⁸⁶ See *id.* at 19424, para. 14 (“We emphasize, however, that in undertaking this analysis, we do not ... otherwise make any general determinations of the sort we would properly make in a rulemaking proceeding on a fuller record.”); see also *EarthLink v. FCC*, 462 F.3d at 10 (petitioners’ “reliance on *Qwest Omaha* ... is particularly inapt as that case highlights the FCC’s capacity and propensity to adapt forbearance decisions to the circumstances.”). The Commission found in *Qwest Omaha* that section 251(b)(1) resale was not an adequate substitute for avoided-cost resale because it lacked a wholesale pricing requirement. *Qwest Omaha Order*, 20 FCC Rcd at 19460, para. 89. However, that *Order* was adopted 15 years ago when the communications marketplace was very different from today’s marketplace. In particular, the voice marketplace is replete with facilities-based competition, and incumbent LECs no longer have a dominant role in voice as whole or wireline voice in particular. See *supra* Section III.A.3. Moreover, the Commission did not then have before it a record showing that the majority of resold services are purchased by means other than Avoided-Cost Resale.

⁶⁸⁷ See *supra* Section III.A.2.

⁶⁸⁸ See *supra* Section III.A.1.

⁶⁸⁹ See *Qwest Omaha Order*, 20 FCC Rcd at 19460, para. 89.

⁶⁹⁰ See, e.g., *id.* at 19433, 19459-60, paras. 37, 88-89 (denying forbearance for Avoided-Cost Resale because it could be used as a non-facilities-based strategy to enter the narrowband voice market); *2015 USTelecom Forbearance Order*, 31 FCC Rcd at 6192, para. 60.

⁶⁹¹ See Granite Comments at 15-16.

⁶⁹² *UNE Analog Loops and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6520, para. 33.

DS0 Loops will remain available—i.e., in rural and urban cluster census blocks.⁶⁹³ We decline to adopt either proposal as both undermine the policy of encouraging consumers to transition to next-generation services and are unnecessary to protect consumers or the public interest.

162. *Pending appeal.* INCOMPAS asserts that it is inappropriate for the Commission to extend forbearance from Avoided-Cost Resale requirements to non-price cap incumbent LECs while the appeal of the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order* is pending.⁶⁹⁴ We disagree. That *Order* remains effective at this time,⁶⁹⁵ and this is a different proceeding with a new record upon which to consider extending Avoided-Cost Resale forbearance. Nothing in this record persuades us that a different conclusion is warranted.

163. *Transition Period.* In the *Notice*, we proposed a three-year transition period for this forbearance relief, and we sought comment on whether to include a six-month period for new orders.⁶⁹⁶ We adopt this proposal and do not include any period for new orders, conditioning our forbearance from non-price cap LEC Avoided-Cost Resale obligations on an appropriate transition period. Competitive LECs using Avoided-Cost Resale to fill in gaps where UNE Loops are unavailable and where they have not yet deployed their own fiber facilities will need to consider whether they can devote resources to deploying their own network facilities during the transition period or make alternative commercial arrangements. And competitive LECs operating on a purely resale basis will need time to negotiate new pricing arrangements under section 251(b)(1) resale, negotiate entirely new commercial wholesale arrangements, or work with their customers to migrate them to IP-based voice services.⁶⁹⁷ However, unlike with UNEs, competitive LECs using Avoided-Cost Resale do not have to place new orders to address individual last-mile loops that have deteriorated or to deal with the residential churn that requires competitive LECs using UNE DS0 Loops to place new orders when a residential customer at a particular location moves and a new potential residential customer moves into that location.

164. Accordingly, we condition our grant of forbearance from non-price cap LEC Avoided-Cost Resale obligations on a three-year grandfathering period. This transition period will begin on the effective date of this Order. During the relevant transition period, any Avoided-Cost Resale services that a competitive LEC purchases as of the effective date of this order shall be available for purchase from the incumbent LEC at regulated rates.⁶⁹⁸ As with the transition for price cap LEC Avoided-Cost Resale,⁶⁹⁹ we find this transition period will minimize the impact of any immediate rate increase for end-user customers of affected competitive LECs that could otherwise occur if current pricing for these services

⁶⁹³ See Granite Comments at 16. Granite argues that “where market conditions warrant retaining UNE DS0 loops, they equally warrant retaining Avoided-Cost Resale.” *Id.* However, competitive LECs use Avoided-Cost Resale to provision legacy TDM voice service, while UNE DS0 loops are used to provide both broadband and voice service. See *supra* Section III.A.2. The Commission’s policy of transitioning to next-generation services therefore warrants forbearance from Avoided-Cost Resale requirements even where market conditions support retaining UNE DS0 loops.

⁶⁹⁴ See INCOMPAS/NWTA Comments at 45-46.

⁶⁹⁵ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6533, para. 67; see also USTelecom Comments at 60.

⁶⁹⁶ See *UNE/Resale Notice*, 34 FCC Rcd at 11325-26, para. 97.

⁶⁹⁷ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6525-26, paras. 44-46.

⁶⁹⁸ Wholesale discounts are established either through negotiated interconnection agreements or through state-commission-Avoided-Cost Resale rate studies applying certain Commission-developed pricing formulas. See 47 U.S.C. § 252(d)(3); 47 CFR §§51.609, 51.611. Our forbearance action is not intended to upset pre-existing interconnection agreements or other contractual arrangements that may currently exist nor pre-existing state commission wholesale discount rates during the transition period (including any already-adopted state commission scheduled changes in the discount rates), which should quell concerns regarding near-term price increases following forbearance from Avoided-Cost Resale obligations.

⁶⁹⁹ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6525-26, para. 44.

were immediately eliminated.⁷⁰⁰ The transition timeframe we adopt will work to ensure that end-user customers do not experience any undue service disruption as a result. We find no reason to adopt any longer transition period and thus we reject INCOMPAS's proposed seven-year transition period.⁷⁰¹

F. Cost Benefit Analysis

165. We take a dynamic and forward-looking approach to evaluate the benefits and costs of regulation. The Commission has discussed at length the failings of *ex ante* regulation and found that *ex ante* regulation is necessary only where competition cannot be relied upon to reasonably discipline the market.⁷⁰² The obligation to offer UNEs and Avoided-Cost Resale have been in place for over 23 years, and the Commission has long recognized that unbundling "is an especially intrusive form of economic regulation."⁷⁰³ The Commission has found that these obligations can yield negative effects, including diminishing incentives to invest, inhibiting facilities-based competitive entry and forestalling the benefits of competition.⁷⁰⁴ Thus, we seek to eliminate UNEs and Avoided-Cost Resale where development of competition means the costs of continuing these obligations outweigh their benefits and where the statutory criteria for declining to impose such requirements are otherwise satisfied.

166. *UNE DS1 and DS3 Loops.* We find that over the medium and long term the costs of maintaining the obligation to supply UNE DS1 and DS3 Loops in those counties and study areas deemed competitive in the *BDS Order* and *RoR BDS Order* exceed any benefits such supply provides.⁷⁰⁵ First, the Commission has found UNE DS1 and DS3 Loops to be "particularly close substitutes" for DS1 and DS3 business data services, and deregulated pricing for DS1 and DS3 business data services in the

⁷⁰⁰ Further, the process that we describe is a default process from which competitive LECs and non-price cap incumbent LECs remain free to deviate pursuant to mutual agreement.

⁷⁰¹ See INCOMPAS/NWTA Reply at 8, 42. INCOMPAS relies on the seven-year transition period provided for in the *T-Mobile/Sprint Order* "for DISH to become a facilities-based provider." *Id.* However, the most vocal opponent to eliminating the Avoided-Cost Resale requirement is Granite, which is not a facilities-based provider and has not professed any desire or intention to become one, and there is little record evidence suggesting Avoided-Cost Resale is used as a bridge to facilities-based competition. And neither INCOMPAS nor Granite provide any evidence that consumers will be harmed without a longer period.

⁷⁰² See *BDS Order*, 32 FCC Rcd at 3505, para. 101, 3517-19, paras. 125-29; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6511, paras. 15-17. Our consideration of the relative benefits and costs of the obligations for UNE DS0 associated subloops, UNE DS1 and DS3 associated subloops follows the same reasoning as our consideration the underlying Loop obligations for these services discussed in this section. To the extent that we find that the benefits of continuing UNE obligations exceed the costs of obligation, this analysis applies equally to the UNE OSS obligation necessary to provision UNEs and to support number portability. Further, the costs of the obligation to provision Multiunit Premises UNE Subloops, UNE Hybrid Loops, Grandfathered UNE 64 kbps Voice-Grade Channel Over Fiber Loops, UNE NIDs and UNE Narrowband Voice-Grade Loops exceed the benefits of continuing these obligations because there is no indication that these UNEs are used by competitors to any significant degree. See *supra* Sections III.A.3-III.B (discussing lack of demand for these UNEs); see also, e.g., AT&T Comments at 31; CenturyLink Comments at 56-58, 64; Verizon Comments at 23-24; Puerto Rico Tel. Co. Comments at 16; ADTRAN Reply at 4; AT&T Reply at 36-37; Puerto Rico Tel. Co. Reply at 4, 9; USTelecom Reply at 33-34. Further in the case of Multiunit Premises UNE Subloops, the record indicates that the it is the owner of the property, not the incumbent LEC, that controls access to the property. Thus, competitive LECs concerns with access to the MTEs are beyond the scope of our actions here, and instead belong to the current MTE Docket. See *supra* para. 101.

⁷⁰³ See *Triennial Review Remand Order*, 20 FCC Rcd at 2555, para. 36.

⁷⁰⁴ See *id.*; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6527-28, paras. 48-52; see also *BDS Order*, 32 FCC Rcd at 3505, para. 101, 3517, paras. 125-26 (describing the effects of *ex ante* price regulation).

⁷⁰⁵ See generally *BDS Order*, 32 FCC Rcd 3459; *RoR BDS Order*, 33 FCC Rcd 10402.

counties and study areas deemed competitive in the *BDS Order* and *RoR BDS Order*.⁷⁰⁶ The Commission has found that *ex ante* price regulation for DS1 and DS3 business data services to be unnecessary in these counties and study areas and that the costs of *ex ante* regulations exceed the benefits of *ex ante* regulation for DS1 and DS3 business data services.⁷⁰⁷ Because UNE DS1 and DS3 Loops are close substitutes for DS1 and DS3 business data services, the Commission's conclusions as to the net costs of continued regulation of DS1 and DS3 business data service should apply equally to UNE DS1 and DS3 Loops.⁷⁰⁸ Thus, the obligation to offer UNE DS1 and DS3 Loops is no longer needed where the Commission has found that market sufficiently competitive and/or found no need for continued regulation of DS1 and DS3 business data services. Second, the demand for UNE DS1 and DS3 Loops and DS1 and DS3 business data services have declined over time as competitive LECs have built out their own networks and migrated away from TDM-based services;⁷⁰⁹ thus suggesting that competitive LECs' need for these inputs has declined as these competitors have built their own facilities. Consequently, requiring the supply of UNE DS1 and DS3 Loops where relief has been granted for DS1 and DS3 business data services is likely to have a net expected cost in medium and long term. Finally, as there are no material operational or performance distinctions between UNE DS1 and DS3 Loops and DS1 and DS3 business data services and these services are used interchangeably,⁷¹⁰ there is no benefit to have one regulatory paradigm for UNE DS1 and DS3 Loops and another for DS1 and DS3 business data services, particularly given the impact that a differential regulatory paradigm could have on firms' incentives to invest in their own networks and next-generation services.⁷¹¹

167. In the short term, however, we do not want to disrupt the services currently received by customers of competitive LECs that purchase UNE DS1 and DS3 Loops in these areas, particularly given the impact on businesses and consumers from the recession and COVID-19 pandemic which has increased the need for reliable broadband services for businesses and consumers.⁷¹² Consequently, we find that the 42-month transition period for UNE DS1 Loops and the 36-month transition period for UNE DS3 Loops provides sufficient time for the competitive LECs to transition to alternative arrangements and/or to replace these productive inputs with their own facilities.⁷¹³

⁷⁰⁶ *BDS Order*, 32 FCC Rcd at 3476, para 32; *UNE/Resale Notice* 34 FCC Rcd at 11303, para 29; AT&T Comments at 9; Verizon Comments at 12.

⁷⁰⁷ *BDS Order*, 32 FCC Rcd at 3502, para. 94, 3505, para. 101.

⁷⁰⁸ *Id.* at 3505, para. 101, 3517-19, paras. 125-130.

⁷⁰⁹ *Id.* at 3503, para. 96; CenturyLink Comments at 28, 36; AT&T Reply at 18; CenturyLink Reply at 13; Verizon Reply at 4.

⁷¹⁰ CenturyLink Comments at 28; First Communications Comments at 2; Verizon Comments at 2; Frontier Reply at 7-8; Verizon Reply at 4.

⁷¹¹ CenturyLink Comments at 35-36.

⁷¹² See National Bureau of Economic Research, NBER Determination of the February 2020 Peak in Economics Activity (June 8, 2020), <https://www.nber.org/cycles/june2020.pdf> (determining that a recession began in early 2020). The Bureau of Labor Statistics reports that "total nonfarm payroll employment fell by 20.5 million in April, and the unemployment rate rose to 14.7 percent," and these "changes in these measures reflect the effects of the coronavirus (COVID-19) pandemic and efforts to contain it. Employment fell sharply in all major industry sectors." Press Release, U.S. Department of Labor, Bureau of Labor Statistics, The Employment Situations—April 2020 (May 8, 2020), <https://www.bls.gov/news.release/pdf/empisit.pdf>. Real gross domestic product (GDP) decreased at an annual rate of 5.0 percent in the first quarter of 2020. Press Release, U.S. Department of Commerce, Bureau of Economic Analysis, News Release, Gross Domestic Product, first Quarter 2020 (Second Estimate) Corporate Profits, First Quarter 2020 (Preliminary Estimate) (May 28, 2020), <https://www.bea.gov/news/2020/gross-domestic-product-1st-quarter-2020-second-estimate-corporate-profits-1st-quarter>.

⁷¹³ INCOMPAS-USTelecom Compromise Proposal at 2-3. As discussed in the DS1/DS3 section, there is record evidence that the use of UNE DS3 Loops is *de minimis*, justifying a shorter transition period. See *supra* para. 48.

168. *UNE DS0 Loops.* We find that the costs of maintaining the obligation to supply UNE DS0 Loops in urbanized areas exceed any benefits such supply provides. UNE obligations are heavy-handed and so carry substantive regulatory costs. They likely distort pricing and investment decisions, as well as choices of product offerings. In urbanized areas, we find that the benefits of the UNE DS0 obligation are negligible because the facilities-based competition such regulations are intended to foster is established to an extent that makes these rules redundant. Currently, 71% of mass market consumers in these areas can obtain broadband services meeting a 25/3 Mbps speed threshold from at least the incumbent LEC and a cable provider.⁷¹⁴ And competition and entry by fixed wireless providers continues to increase.⁷¹⁵ Thus, competition between two facilities-based providers with near ubiquitous networks, and expected entry by fixed wireless providers, without the distortions of UNE regulation, will bring greater benefits over the medium term, than ongoing UNE requirements, which distort incumbent and competitive LECs' incentives to compete.

169. In contrast, the record presents insufficient evidence of competitive changes to end UNE DS0 Loop obligations in urban clusters and rural areas. We find that: (1) mass market customers in these areas often either do not have access to a high speed broadband service or can only obtain such service from a single provider,⁷¹⁶ which sometimes is a competitive LEC that relies on UNE DS0 loops;⁷¹⁷ and (2) certain competitors rely on UNE DS0 loops to connect their customers to their own fiber networks⁷¹⁸ and are swapping out these loops for their own last mile facilities as they build out their fiber network to their end-users' premises.⁷¹⁹ Thus, consistent with our initial imposition of UNE DS0 Loop requirements,⁷²⁰ access to UNE DS0 Loops in urban clusters and rural areas continues to support the development of competition and the deployment of advanced services in these areas.

170. In urbanized areas, we find the two-part transition for UNE DS0s Loops⁷²¹ appropriately balances the short-term needs of the competitive LECs to maintain competitive supply while they extend their networks. Competitors claim that the immediate loss of UNE DS0 Loops would strand their investments⁷²² and cause the cessation of services to their customers,⁷²³ particularly given the recession

⁷¹⁴ FCC, Form 477 data, as of December 31, 2019. This contrasts with 21% of consumers in rural areas and 27% of consumers in urban clusters. The corresponding figures for broadband services meeting a 10/1 Mbps speed threshold are 82% for urbanized areas, 36% for rural areas, and 59% for urban clusters. *Id.*

⁷¹⁵ See *supra* Section III.A.2.

⁷¹⁶ Based on December 2019 Form 477 data, the proportion of households with either no or one provider option for 25/3 Mbps services was 57% in rural areas and 41% in urban clusters compared to 16% in urbanized areas.

⁷¹⁷ As noted above, of the approximately 42,000 thousand households who have a single option for 25/3 Mbps service that may rely upon UNE Loops, about 35,000 live in rural areas and urban clusters where UNE DS0 Loops will remain available. See *supra* note 271.

⁷¹⁸ INCOMPAS Comments at 17; Socket Decl. ¶ 5.

⁷¹⁹ Socket Decl. ¶¶ 8, 33, 43; Sonic Comments at para. 18; Sonic Decl. ¶ 7; TelNet Comments at 16; Windstream Comments at 22-26; Windstream Decl. ¶¶ 23-27.

⁷²⁰ *UNE Remand Order*, 15 FCC Rcd 3839-40, paras. 313-17; *Triennial Review Order*, 18 FCC Rcd at 17121-22, paras. 234-36.

⁷²¹ INCOMPAS-USTelecom Compromise Proposal at 2.

⁷²² Clear Rate Decl. ¶ 3; SnowCrest Comments at 4; Socket Decl. ¶¶ 46-49; Digital West Decl. ¶ 10; INCOMPAS/NWTA Reply at 8, 12, 29.

⁷²³ Allstream Feb. Decl. ¶ 18; IdeaTek Comments at para. 9; Mammoth Decl. ¶ 4; SnowCrest Comments at 2; Uniti Fiber Comments at para. 2; Windstream Comments at paras. 3, 22-26; Windstream Decl. ¶ 41.

that has been caused by the COVID-19 pandemic.⁷²⁴ We find these claims credible as facility-based replacement of existing UNEs requires substantive time and effort.⁷²⁵

171. *UNE Dark Fiber Transport.* Consistent with the *UNE Transport Forbearance Order*, we find that the costs of maintaining the obligation to supply new UNE Dark Fiber Transport exceed any benefits such supply provides to wire centers that are within a half mile of alternative fiber.⁷²⁶ Such an obligation distorts the incumbent and competitive LECs' incentives to invest in transport networks, e.g., because it is unlikely UNE prices correctly reflect efficient costs in all circumstances.⁷²⁷ Similarly, competitive LECs may inefficiently prefer to purchase UNEs without any long-term obligations, rather than bearing the multi-decade risk deployment entails.

172. We find that there are net benefits to competitors to retain use of their existing UNE Dark Fiber Transport for a significant period of time, however, because of the risk of stranding competitors' investments that rely upon this transport.⁷²⁸ This concern is sharpened by the recession caused by the COVID-19 pandemic, which has increased the need for broadband services, and has made it harder to finance deployment.⁷²⁹ Some competitive LECs rely on embedded UNE Dark Fiber Transport to support the investments they have made in networks, notably including last-mile facilities, which represent substantial investments that are sunk for many years.⁷³⁰ Competitively replacing the UNE Dark Fiber Transport they currently rely on would in some instances require significant investments (on the part of the providers or third parties) and would take substantial time.⁷³¹ The result, in some instances, would be the cessation of services to existing customers and of planned new last-mile deployments.⁷³² And the cost of continuing to provision existing UNE Dark Fiber Transport is comparatively low.⁷³³ Accordingly, we are persuaded there are significant net benefits to permit competitors' continued use of embedded UNE Dark Fiber Transport at existing terms and conditions for eight years.⁷³⁴

173. *Avoided-Cost Resale and UNE Analog Loops.* We find there are net costs of continuing the obligations to offer Avoided-Cost Resale and UNE Analog Loops. The Commission has found that

⁷²⁴ National Bureau of Economic Research, NBER Determination of the February 2020 Peak in Economics Activity (June 8, 2020), <https://www.nber.org/cycles/june2020.pdf>.

⁷²⁵ See, e.g., Digital West Decl. ¶ 12; GWI Decl. ¶¶ 10-15; INCOMPAS/NWTA Comments at 39-40; SnowCrest Comments at 3-5; Socket Decl. ¶¶ 50-52; Sonic Comments at 10-11.

⁷²⁶ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5793-94, para. 57; see also *BDS Order*, 32 FCC Rcd at 3468, para. 15, 3512-14, paras. 118-19.

⁷²⁷ See CenturyLink Comments at 36-37.

⁷²⁸ See, e.g., Digital West Decl. ¶¶ 4, 13 (invested \$13 million in network facilities, including 8 central offices, of which 6 would be impacted by dark fiber), 13-14; GWI Decl. ¶ 16 (\$3.4 million to build fiber to nine central offices to replace dark fiber); IdeaTek Decl. ¶¶ 13-15 (Invested tens of millions of dollars in sustainable rural fiber); SnowCrest Comments at 1-5 (\$600,000); Socket Decl. ¶¶ 2, 46 (Investment of millions of dollars would be stranded); Sonic Comments at 17-18 (\$580 million to replace interoffice network facilities); Windstream Comments at 22-26. Grandfathering existing arrangements will not distort incumbent LECs' decisions about future deployments.

⁷²⁹ See *supra* para. 167 & note 715.

⁷³⁰ See, e.g., IdeaTek Decl. ¶¶ 5, 13; Mammoth Decl. ¶ 7; Sonic Decl. ¶ 3; INCOMPAS March 6, 2020 *Ex Parte* Letter at 1-3; Socket Reply at 9-11.

⁷³¹ IdeaTek Decl. ¶¶ 11-14; Sonic Decl. ¶¶ 4, 18; TelNet Comments at 16; Windstream Comments at 22-26; Windstream Decl. ¶¶ 23-27.

⁷³² IdeaTek Comments at para. 9; Mammoth Decl. ¶¶ 4, 8; SnowCrest Comments at 2; Sonic Decl. ¶¶ 9-12; Uniti Fiber Comments at para. 2; Windstream Services Comments at paras. 3, 22-26; Windstream Decl. ¶ 41.

⁷³³ See *supra* Section III.C.

⁷³⁴ See INCOMPAS-USTelecom Dark Fiber Compromise Proposal at 2.

the availability of these UNEs at subsidized prices distorts competitors' incentives to build their own last mile facilities and the deployment of next-generation facilities, hindering the Commission's policy goals and reducing overall efficiency.⁷³⁵ The migration away from legacy TDM services is occurring in price-cap and non-price cap areas.⁷³⁶ The Commission forbore from imposing these obligations for price-cap LECs, and identical reasoning applies to non-price LECs.⁷³⁷ Allowing competitive LECs access to these services during the three-year transition period will allow an orderly transition to the more efficient end state.⁷³⁸

G. Other Considerations

174. *SBA Response.* We disagree with the Chief Counsel of the Small Business Administration that removing these UNE and resale obligations for which we grant relief today will prevent small competitive LECs from providing competitive services to consumers and from deploying their own networks,⁷³⁹ and that the benefits to adopting these changes will have unclear economic benefits.⁷⁴⁰ We eliminate UNEs and resale only where they are no longer necessary for competition and entry as the Act requires, and preserve them where they still serve a useful purpose. Moreover, the fact that INCOMPAS and USTelecom and almost all of their members who participated in this proceeding have reached a compromise as to several of the UNEs that SBA raises concerns about,⁷⁴¹ provides us with additional assurance that eliminating certain UNEs subject to transition conditions will not unduly affect small businesses. We expect that the benefits from eliminating these UNEs and resale, including increased competition and deployment of next-generation facilities, will also extend to small businesses. Additionally, any small businesses relying on current UNE Dark Fiber Transport will retain all of their current rights for eight years. To the extent small businesses are burdened, we expect that this generous transition period will provide them sufficient time to act to avoid disruptions to their current business operations.⁷⁴²

175. *Puerto Rico.* Based on the record in this proceeding, we do not find that a longer grandfathering period is necessary for Puerto Rico for any UNE or resale obligations for which we grant relief.⁷⁴³ Although we provided a five-year, rather than three-year, grandfathering period for Puerto Rico due to the state of the economy and ongoing hurricane restoration efforts in the *2019 UNE Forbearance Orders*,⁷⁴⁴ a unique transition period is not warranted here for Puerto Rico,⁷⁴⁵ and competitive LECs providing service there have been on notice for almost a year now that such UNEs may no longer be

⁷³⁵ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6510-11, paras. 14-16, 6524, paras. 40-41.

⁷³⁶ See *supra* Section III.A.3; *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6508-10, paras. 11-12.

⁷³⁷ *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6511, para 16, 6523, para. 38.

⁷³⁸ In addition, providers with customers that prefer legacy services and that rely upon Avoided-Cost Resale to provision those services, may continue to offer legacy services via section 251(b)(1) resale and commercial agreements.

⁷³⁹ SBA Advocacy Reply at 3-4.

⁷⁴⁰ *Id.* at 4.

⁷⁴¹ See INCOMPAS-USTelecom Compromise Proposal.

⁷⁴² See *supra* Section III.C.

⁷⁴³ Cf. WorldNet Comments at 13-14 (asserting that Puerto Rico needs at least a five-year transition period); Letter from Richard Davis, Counsel for WorldNet Telecommunications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 19-308 (filed Sept. 24, 2020) (World Net Sept. 24, 2020 *Ex Parte* Letter).

⁷⁴⁴ *UNE Transport Forbearance Order*, 34 FCC Rcd at 5800-01, paras. 73-74; see also *UNE Analog Loop and Resale Order*, 34 FCC Rcd at 6521-22, paras. 36-37.

⁷⁴⁵ Puerto Rico Tel. Co. Comments at 21-24; Puerto Rico Tel. Co. Reply at 18-20.

available.⁷⁴⁶ We find that we have provided a sufficient transition period for the UNE and resale obligations for which we grant relief, which should also provide more than enough time for competitive LECs in Puerto Rico to seamlessly transition their existing customers to alternative facilities or services.⁷⁴⁷ A longer transition would unnecessarily continue to impose outdated burdens solely placed on the incumbent LEC, undermining incentives for sustainable facilities-based competition, which is important to encourage as Puerto Rico continues to rebuild.⁷⁴⁸ Moreover, we clarify that the transition periods we adopt herein do not supersede or modify any previously-adopted transition periods applicable to Puerto Rico.

176. We also reject WorldNet's argument that the Commission should exempt Puerto Rico from any elimination or reduction of UNE or resale obligations in this proceeding due to its unique economic circumstances.⁷⁴⁹ As WorldNet acknowledges, we recently decided not to exempt Puerto Rico with regard to the UNE and Avoided-Cost Resale obligations at issue in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*.⁷⁵⁰ For similar reasons, namely, that reducing unbundling obligations will increase incentives for facilities-based deployment, our decision today applies to Puerto Rico.⁷⁵¹ Importantly, customers in Puerto Rico will have a number of alternative options that will protect them from unreasonable rates and charges, aided in part by the Commission's ongoing work to implement the Uniendo a Puerto Rico Fund and ensure that the residents of the island have access to next-generation technologies that are resilient to hurricanes and other natural disasters."⁷⁵² Even after our actions today, WorldNet will still be able to make voice services available to its customers via alternative arrangements such as commercial agreements with the incumbent LEC or other providers and section 251(b)(1) resale, or through deployment of its own facilities-based voice services.⁷⁵³ Thus, we do not find it necessary to exempt Puerto Rico from the UNE and resale obligations that are eliminated or reduced today. Moreover, the transition timeframes that we have adopted should provide more than sufficient time for WorldNet to transition any of its existing customers to alternative facilities or services.

177. *Public Safety.* With respect to concerns that the Commission "should carefully consider the impacts that its proposal . . . would have on public safety,"⁷⁵⁴ we note that such issues have been considered with respect to each UNE element where the issue has been raised in the record as well as in the discussion of Avoided-Cost Resale. As discussed above, to the extent commenters raise issues about losing line power and TDM service over copper,⁷⁵⁵ today's order will not impact the availability of such

⁷⁴⁶ See *UNE/Resale Notice*, 34 FCC Rcd at 11325-26, paras. 97-99. While we sought comment on a longer transition period for Puerto Rico in the *UNE/Resale Notice*, we did not propose a different transition timeframe. *Id.*

⁷⁴⁷ See Puerto Rico Tel. Co. July 18, 2019 *Ex Parte* Letter at 2-3; see also *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6521-22, para. 36, 6530, para. 55; Puerto Rico Tel. Co. Reply at 7-17.

⁷⁴⁸ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6521-22, para. 36, 6530, para. 55; see also Puerto Rico Tel. Co. Reply at 7-17.

⁷⁴⁹ See WorldNet Comments at 3-13 (WorldNet asserts that forbearance will lead to significant market disruption, stranded investment, and increased prices for customers at a time when residents of Puerto Rico are already incurring financial hardship from the effects of the hurricanes).

⁷⁵⁰ See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6521-22, para. 36, 6530, para. 55; see also *id.* at 6522, para. 37, 6530, para. 55 (recognizing the uniqueness of Puerto Rico's situation in the context of a transition period).

⁷⁵¹ See *id.* at 6521-22, para. 36, 6530, para. 55; see also Puerto Rico Tel. Co. Reply at 7-17.

⁷⁵² See *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, 34 FCC Rcd at 6521-22, para. 36; see also *id.* at 6530, para. 55; Puerto Rico Tel. Co. Reply at 7-17.

⁷⁵³ See Puerto Rico Tel. Co. July 18, 2019 *Ex Parte* Letter at 2-3.

⁷⁵⁴ Michigan PSC Reply at 6.

⁷⁵⁵ See *supra* paras. 153-54; Granite Comments at 3; INCOMPAS/NWTA Comments at 46; California PUC Comments at 5-6.

features, nor does it affect the availability of 9-1-1 functionality.⁷⁵⁶ And consistent with the *Notice*, we retain the access to E911/911 database UNE without modification.⁷⁵⁷ We therefore find that our actions today will not affect issues related to public safety in any way.

178. *Form 477 Data.* With respect to concerns that there are limitations related to our reliance on Form 477 data,⁷⁵⁸ such data is the best, most granular data currently available.⁷⁵⁹ Importantly, however, in this Order, we rely on Form 477 data primarily for nationwide findings in the UNE Narrowband Voice-Grade Loops and Avoided-Cost Resale sections,⁷⁶⁰ and on findings that apply to urbanized areas as compared to urban clusters and rural areas.⁷⁶¹ To the extent commenters raise concerns about the precision of Form 477 data in specific areas, nothing in our Order relies on such specificity.⁷⁶² While the Commission is currently developing a new data collection to replace Form 477, it is primarily doing so to improve precision in specific areas,⁷⁶³ which, while undoubtedly important for Universal Service purposes, is not required for our more general findings to refine unbundling requirements. For purposes of this proceeding, as discussed above, we have accurately captured the “current competitive landscape” nationwide and find that our actions today will “effectively foster competition and benefit consumers.”⁷⁶⁴

IV. PROCEDURAL MATTERS

179. *Paperwork Reduction Act of 1995 Analysis.* This document does not contain 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).

⁷⁵⁶ *See* Michigan PSC Reply at 6 (citing, as an example, the possibility that customers of competitive LECs may lose access to E-9-1-1).

⁷⁵⁷ *UNE/Resale Notice*, 34 FCC Rcd at 11298, para. 20; *supra* para. 141.

⁷⁵⁸ Michigan PSC Reply at 2-3; California PUC Comments at 3; Public Knowledge Comments at 17-20.

⁷⁵⁹ *See Citizens Telecom. v. FCC*, 901 F.3d at 1011 (upholding the *BDS Order* and recognizing “that the relevant data presents radically different pictures of the competitiveness of the market . . . [b]ut the FCC may rationally choose which evidence to believe among conflicting evidence in its proceedings, especially when predicting what will happen in the markets under its jurisdiction Regardless of whether its predictions based on uncertain data prove true, the FCC is not acting arbitrarily and capriciously when it makes such predictions in choosing how to regulate the market under its jurisdiction.”).

⁷⁶⁰ Moreover, the nationwide findings we primarily rely on in the UNE Narrowband Voice-Grade Loops and Avoided-Cost Resale sections are voice subscription counts rather than deployment data. *See supra* Sections III.A.3. and III.E. While some parties in this proceeding have questioned the reliability of deployment data, none have questioned the validity of voice subscription counts.

⁷⁶¹ While some commenters criticize Form 477 deployment data as overstating deployment because a provider need only serve one location in a census block for the block to be considered served, we note that in urbanized areas, where census blocks are extremely small, a provider that serves one location is very likely to be able to serve the other locations in the census block in the near future. *See supra* para. 71.

⁷⁶² The findings in the UNE DS1/DS3 and UNE Dark Fiber Transport sections are based on analyses that relied upon the comprehensive BDS Data Collection and the Commission’s prior orders that relied upon those analyses. *See supra* Sections III.A.1 and III.C (providing relief for DS1/DS3 and dark fiber unbundling requirements based on the presence of proximate competitive providers).

⁷⁶³ *See generally Establishing the Digital Opportunity Data Collection, Modernizing the FCC Form 477 Data Program*, Second Report and Order and Third Further Notice of Proposed Rulemaking, 35 FCC Rcd 7460 (2020) (implementing collection and verification requirements for fixed and mobile broadband service availability and quality of service data).

⁷⁶⁴ Michigan PSC Reply at 3.

180. *Final Regulatory Flexibility Analysis.* The Regulatory Flexibility Act of 1980 (RFA) requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.” Accordingly, we have prepared a FRFA concerning the possible impact of the rule changes contained in the Report and Order on small entities. The FRFA is set forth in Appendix B.

181. *Congressional Review Act.* [[The Commission will submit this draft Report and Order to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, for concurrence as to whether this rule is “major” or “non-major” under the Congressional Review Act, 5 U.S.C. § 804(2).]] The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

182. *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

183. 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 Report and Order IS ADOPTED and SHALL BE EFFECTIVE thirty (30) days after publication in the Federal Register.

184. IT IS FURTHER ORDERED that Part 51 of the Commission’s rules IS AMENDED as set forth in Appendix A and SHALL BE EFFECTIVE on the effective date announced herein.

185. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. § 801(a)(1)(A).

186. IT IS FURTHER ORDERED that the Commission’s Consumer & Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

FINAL RULES

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), (b)(3)(i), (d), and (f), adding paragraphs (a)(1)(v), (a)(1)(vi), (a)(4)(iii), and (a)(5)(iii), removing paragraphs (a)(2)(ii)-(iii), (a)(3)(iii)(C), (b)(2), and (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 on an unbundled basis in census blocks defined as rural or urban cluster by the Census Bureau. A copper loop is a stand-alone local loop comprised entirely of copper wire or cable. For purposes of this section, copper loops include only ~~two-wire and four-wire analog voice grade copper loops,~~ digital copper loops (e.g., DS0s 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.

* * * * *

- (v) *Transition period for narrowband loops.* Notwithstanding any other provision of the Commission's rules, an incumbent LEC shall continue to provide a requesting telecommunications carrier with nondiscriminatory access to two-wire and four-wire analog voice grade copper loops, the TDM-features, functions, and capabilities of hybrid loops, or 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 for 36 months after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]], provided such loop was being provided before [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]].
- (vi) *Transition period for digital copper loops and two-wire and four-wire copper loops conditioned to transmit digital signals.* Notwithstanding the remainder of paragraph (a)(1) of this section, an incumbent LEC shall continue to provide a requesting telecommunications carrier with nondiscriminatory access to copper loops as defined in this section for 48 months after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]], provided that the incumbent LEC began providing such

loop no later than 24 months after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]]. Incumbent LECs may raise the rates charged for such loops by no more than 25 percent during months 37 to 48 of this transition period and may charge market-based rates after month 48.

* * * * *

(2) * * *

(ii) [Deleted] *Broadband services.* When a requesting telecommunications carrier seeks access to a hybrid loop for the provision of broadband services, an incumbent LEC shall provide the requesting telecommunications carrier with nondiscriminatory access to the time division multiplexing features, functions, and capabilities of that hybrid loop, including DS1 or DS3 capacity (where impairment has been found to exist), on an unbundled basis to establish a complete transmission path between the incumbent LEC's central office and an end user's customer premises. This access shall include access to all features, functions, and capabilities of the hybrid loop that are not used to transmit packetized information.

(iii) [Deleted] When a requesting telecommunications carrier seeks access to a hybrid loop for the provision of narrowband services, the incumbent LEC may either:

(A) Provide nondiscriminatory access, on an unbundled basis, to an entire hybrid loop capable of voice-grade service (i.e., equivalent to DS0 capacity), using time division multiplexing technology; or

(B) Provide nondiscriminatory access to a spare home run copper loop serving that customer on an unbundled basis.

(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, but only if that building is located in (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 § 69.803 of this chapter, 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 § 61.50 of this chapter. 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. 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.

* * * * *

(iii) *Transition period.* Notwithstanding paragraph (a)(4)(i) of this section, an incumbent LEC shall continue to provide a requesting telecommunications carrier with nondiscriminatory access to DS1 loops for 42 months after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]], provided the incumbent LEC began providing such loop no later than 24 months after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]]

(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, but only if that building is located in one 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 § 69.803 of this chapter; 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 § 61.50 of this chapter. 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. A DS3 loop is a digital local loop having a total digital signal speed of 44.736 megabytes per second.

* * * * *

(iii) *Transition period.* Notwithstanding paragraph (a)(5)(i) of this section, an incumbent LEC shall continue to provide a requesting telecommunications carrier with nondiscriminatory access to DS3 loops for 36 months after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]], provided such loop was being provided before [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]].

* * * * *

(b) *Subloops and network interface devices.* 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. Notwithstanding any other provision of the Commission's rules, an incumbent LEC shall continue to provide a requesting telecommunications carrier with nondiscriminatory access to the subloop for access to multiunit premises wiring and network interface devices on an unbundled basis for 36 months after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]], provided such subloop or network interface device was being provided before [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]].

(1) * * *

(2) [Deleted] *Subloops for access to multiunit premises wiring.* An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to the subloop for access to multiunit premises wiring on an unbundled basis regardless of the capacity level or type of loop that the requesting telecommunications carrier seeks to provision for its customer. The subloop for access to multiunit premises wiring is defined as any portion of the loop that it is technically feasible to access at a terminal in the incumbent LEC's outside plant at or near a multiunit premises. One category of this subloop is inside wire, which is defined for purposes of this section as all loop plant owned or controlled by the incumbent LEC at a multiunit customer premises between the minimum point of entry as defined in § 68.105 of this chapter and the point of demarcation of the incumbent LEC's network as defined in §

~~68.3 of this chapter.~~

* * * * *

(3) *Other subloop provisions* –

(i) *Technical feasibility.* If parties are unable to reach agreement through voluntary negotiations as to whether it is technically feasible, or whether sufficient space is available, to unbundle a copper subloop ~~or subloop for access to multiunit premises wiring~~ at the point where a telecommunications carrier requests, the incumbent LEC shall have the burden of demonstrating to the state commission, in state proceedings under section 252 of the Act, that there is not sufficient space available, or that it is not technically feasible to unbundle the subloop at the point requested.

(c) [Deleted] *Network interface devices.* ~~Apart from its obligation to provide the network interface device functionality as part of an unbundled loop or subloop, an incumbent LEC also shall provide nondiscriminatory access to the network interface device on an unbundled basis, in accordance with section 251(c)(3) of the Act and this part. The network interface device element is a stand-alone network element and is defined as any means of interconnection of customer premises wiring to the incumbent LEC's distribution plant, such as a cross-connect device used for that purpose. An incumbent LEC shall permit a requesting telecommunications carrier to connect its own loop facilities to on-premises wiring through the incumbent LEC's network interface device, or at any other technically feasible point.~~

(c) * * *

* * * * *

(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, 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. Notwithstanding any other provision of the Commission's rules, an incumbent LEC shall continue to provide a requesting telecommunications carrier with nondiscriminatory access to dark fiber transport for eight years after [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]], provided such dark-fiber transport was being provided before [[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]].

* * * * *

(e) *Operations support systems.* An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to operations support systems on an unbundled basis only when it is used to manage other unbundled network elements, local interconnection, or local number portability, in accordance with section 251(c)(3) of the Act and this part. Operations support system functions consist of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information. An incumbent LEC, as part of its duty to provide access to

the pre-ordering function, shall provide the requesting telecommunications carrier with nondiscriminatory access to the same detailed information about the loop that is available to the incumbent LEC.

APPENDIX B

FINAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Notice of Proposed Rulemaking (*UNE/Resale Notice*) in this proceeding.¹ The Commission sought written comment on the proposals in the *UNE/Resale Notice*, including comment on the IRFA. The present Final Regulatory Flexibility Analysis (FRFA) addresses comments received on the IRFA and conforms to the RFA.²

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

2. In the *UNE/Resale Notice*, the Commission proposed to revise its unbundling and resale requirements to account for changes in communications service markets where competition has flourished, and sought comprehensive comments on these proposals. Thus, this Order provides a new regulatory framework that does away with obsolete regulatory obligations and promotes the deployment of competitive facilities and next-generation networks, spreading the benefits of innovation and facilities-based competition to market entrants and end-users alike, including small businesses in each category.

3. Specifically, in the *UNE/Resale Notice* the Commission sought comment on proposals to eliminate: (1) UNE DS1 and DS3 loop obligations in counties and study areas deemed competitive in the *BDS Order* and *RoR BDS Order*;³ (2) UNE DS0 loops in urban census blocks;⁴ (3) UNE analog loop obligations where they still apply;⁵ (4) 64 kbps voice-grade channel over fiber loops obligations where they still apply;⁶ (5) unbundling requirements for the narrowband frequencies of hybrid loops;⁷ (6) UNE subloops in the particular instances or geographic areas where we propose to eliminate the unbundling obligation for the underlying loop to the customer's premises;⁸ (7) unbundled dark fiber transport to wire centers that are within a half mile of alternative fiber;⁹ (8) stand-alone UNE network interface device (NID) obligations;¹⁰ (9) operations support systems (OSS) unbundling obligations;¹¹ and (10) Avoided-Cost Resale obligations in non-price cap areas.¹² The unbundling requirement imposed by the 1996 Act were designed to promote competition, not specific competitors; as such, in evaluating the continued need for particular UNEs or Avoided-Cost Resale, we look to the existence of competition rather than the impact our actions will have on individual competitors.

4. Drawing on the record in this proceeding along with data from a variety of sources, including findings in the *BDS Order*, *RoR BDS Order*, and Form 477 data, the Commission makes findings regarding actual and potential competition in different geographic areas. In those localities

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. § 604.

³ *UNE/Resale Notice*, 34 FCC Rcd at 11301-05, paras. 26-36.

⁴ *UNE/Resale Notice*, 34 FCC Rcd at 11305-11, paras. 37-51.

⁵ *UNE/Resale Notice*, 34 FCC Rcd at 11312-13, paras. 55-57.

⁶ *UNE/Resale Notice*, 34 FCC Rcd at 11313-14, paras. 58-60.

⁷ *UNE/Resale Notice*, 34 FCC Rcd at 11314-15, paras. 61-64.

⁸ *UNE/Resale Notice*, 34 FCC Rcd at 11315-17, paras. 65-69.

⁹ *UNE/Resale Notice*, 34 FCC Rcd at 11317-21, paras. 70-79.

¹⁰ *UNE/Resale Notice*, 34 FCC Rcd at 11321-22, paras. 80-82.

¹¹ *UNE/Resale Notice*, 34 FCC Rcd at 11322-23, paras. 83-85.

¹² *UNE/Resale Notice*, 34 FCC Rcd at 11324-25, paras. 91-93.

where competition is robust, the Commission finds that continuing to require incumbent LECs to provide access to the UNEs described above is counterproductive. Ending these requirements will minimize burdensome regulations and allow market forces to drive innovation and competitive pricing.

1. UNE DS1 and DS3 Loops

5. Based on the record in this proceeding, as well as the conclusions drawn in the *BDS Order*,¹³ the Commission finds competitive LECs are no longer impaired without access to unbundled DS1 and DS3 loops in those counties that are already competitive or where there is the potential for competition (collectively, “Competitive Counties”).¹⁴ Therefore, these UNE requirements are no longer necessary nor appropriate in these locations. Even if there were continuing impairment, requiring provision of these UNEs would contravene the Commission’s mandate to ensure the deployment of next-generation infrastructure.¹⁵ In the alternative, the Commission finds that forbearance from enforcing requirements for UNE DS1 and DS3 loops in Competitive Counties is appropriate. In these competitive localities, market forces will ensure fair pricing. None of these findings apply to non-competitive counties.

2. UNE DS0 Loops

6. Based on the record in this proceeding, as well as Form 477 data, the Commission finds that cable companies provide significant competition, and therefore competitive LECs are no longer impaired without access to unbundled DS0 loops in urbanized census blocks, and independently forbears from the obligation. As such, UNE obligations are no longer appropriate in these areas. This finding does not apply to urban cluster census blocks nor rural census blocks.

3. UNE Narrowband Voice-Grade Loops, Multiunit Premises Subloops, and NIDs

7. The Commission finds that competitors do not face significant barriers to entry into the voice-service market, and therefore forbear from any remaining UNE Narrowband Voice-Grade Loop obligations nationwide.¹⁶ The Commission also finds that impairment no longer exists without access to UNE Multiunit Premises Subloops and NIDs. Further, the Commission finds that competitive LECs are not impaired by lack of access to these UNEs, and that continued provision thereof contravenes the Commission’s mandate to ensure deployment of next-generation networks.

4. UNE Dark Fiber

8. The Commission finds that competitive LECs are not impaired without UNE dark fiber that is within a half mile from alternative fiber. Further, the Commission independently forbears from any UNE Dark Fiber Transport within a half mile from alternative fiber. However, access will be grandfathered for eight years for those who are already relying on it.

5. Operations Support Systems

9. The Commission finds that competitive LECs are not impaired without access to OSS, except for the purposes of number portability and interconnection.

6. Avoided-Cost Resale

10. For the same reasons the Commission granted price-cap incumbent LECs forbearance from the Avoided-Cost Resale requirement in 2019, the Commission now extends that forbearance to

¹³ See *BDS Order*, 32 FCC Rcd 3459.

¹⁴ See *BDS Order*, 32 FCC Rcd at 3502-06, paras. 94-107.

¹⁵ See 47 U.S.C. § 1302(a).

¹⁶ See generally *2018 Communications Marketplace Report*, 33 FCC Rcd at 12663, para. 192, 12668-69, paras. 203-07 (describing extensive intermodal competition in today’s voice-service marketplace).

non-price-cap incumbent LECs. The Commission finds that enforcement of these obligations is unnecessary to moderate end-user pricing nor to protect competitive LECs' ability to provide service due to the abundance of alternatives available across markets.¹⁷

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

11. In this section, we respond to comments filed in response to the IRFA. To the extent we received comments raising general small business concerns during this proceeding, those comments are discussed throughout the Order and are summarized in part E, below.

12. We reject arguments that ending UNE access for competitive providers would damage their ability to compete¹⁸ in the affected markets because UNE loop obligations are being rolled back only in counties and study areas already deemed competitive, and access to dark fiber will be grandfathered for eight years for all providers currently utilizing it. Furthermore, the Commission's objective in finding non-impairment is to foster competition, not to promote any specific competitor. In making the impairment inquiry, we make the reasonable inference that if competitive providers have successfully entered one market using their own facilities, other providers can enter similar markets on a similar basis.¹⁹

13. We also reject the claim that removing access to UNEs will inhibit development of next-generation infrastructure.²⁰ Indeed, we find that continuing provision of UNEs in areas with robust competition in place will result in stagnation of innovation and delay the deployment of new technologies such as 5G networks.²¹

14. With respect to whether small business customers will lose their choice in providers with the adoption of this Order, or may lose access all together if the only provider in their region is unable to provide service by way of UNEs, we note that because UNE loop obligations will only be removed in markets where competition is sufficiently robust. Additionally, we provide 8 years for competitive LECs to transition from UNE Dark Fiber Transport. While price increases are possible as a result of the transition to commercial pricing for some network elements, these increases do not constitute impairment.²²

15. With respect to the suggestion that a significant number of small entities may be unaware of this proceeding and that the Commission should engage in educational outreach to inform them of it,²³ we disagree with this assertion because the *NPRM* explained the proposed regulatory changes in detail and solicited comments from all parties.²⁴ A summary of the *NPRM* was published in the Federal Register, and we believe that such publication constitutes appropriate notice to small businesses subject to the regulations.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

16. First, we disagree with the Chief Counsel's assertion that the Commission failed to consider in its IRFA the impact of the new regulations on small entities that will be directly impacted by

¹⁷ See *UNE/Resale Order*, paras. 28–34.

¹⁸ See INCOMPAS Reply at 2.

¹⁹ *Triennial Review Remand Order*, 20 FCC Rcd at 2547, para. 28.

²⁰ See INCOMPAS Reply.

²¹ See *Triennial Review Order*, 18 FCC Rcd at 17071, para. 141, 17229, para. 404.

²² See *AT&T v. Iowa Utilities Board*, 525 U.S. at 389-90 & n.11; see also *USTA II*, 359 F.3d at 562.

²³ See INCOMPAS Reply at 1, n. 1.

²⁴ See generally *UNE/Resale Notice*.

the changes.²⁵ To the contrary, the Commission specifically requested comments regarding economic impacts on small entities that may result from the changed regulations.²⁶ Many such comments were submitted in response, allowing the Commission to consider the concerns of small competitive LECs and other entities throughout this Order. Though the Chief Counsel advises the Commission to issue a Further Notice of Proposed Rulemaking with a supplemental IRFA, we believe this is unnecessary because the *NPRM* described in detail the proposed changes to the regulatory framework, posed specific questions on how best to implement the changes, and sought comprehensive comments from all parties. As described in paragraph 15 of this RFA, a summary of the *NPRM* was published in the Federal Register, thus providing notice to all affected entities, including small entities.

17. We disagree with the Chief Counsel's argument that removing these UNE obligations will prevent small competitive LECs from providing competitive services to consumers and from deploying their own networks. Indeed, the Commission is implementing these changes in order to promote facilities-based competition that will benefit large and small providers as well as end-users. Access to UNEs was always intended as a stepping stone for competitors to gain market entry and build their own networks, to be retired once competition was established.²⁷ In evaluating the need for a given UNE the Commission considers the existence of competition, including intermodal competition, not the impact on any particular competitor. The Commission's impairment determinations consider the existence of intermodal competition because "[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."²⁸ Further, examining these same facts, the Commission finds that the forbearance criteria are met, as competition will ensure that rates remain just and reasonable and protect consumers, while also promoting the public interest by spurring deployment of next-generation facilities.²⁹ Additionally, those entities relying on dark fiber will have a significant period—eight years—to transition from UNE Dark Fiber Transport.³⁰

18. Unbundling requirements for DS1 and DS3 loops will be removed only in those counties already determined to be competitive in the *BDS Order* and *RoR BDS Order*.³¹ Furthermore, access to equivalent network elements is still available for purchase via commercial agreements, which supports a finding a non-impairment.³² Indeed, competitive providers already rely on these commercially available elements to compete.³³ Obligations to provide UNE DS0 loops will cease only in urbanized census blocks where there is ample evidence of intermodal competition;³⁴ urban cluster and rural census blocks, where the record does not provide evidence of robust competition, will retain the legacy UNE requirements.

²⁵ See SBA Advocacy Reply at 3.

²⁶ See *UNE/Resale Notice*, 34 FCC Rcd at 11300, para. 24.

²⁷ 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.

²⁸ *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.

²⁹ See *supra* paras. 124-27.

³⁰ See *supra* para. 128.

³¹ See *supra* para. 26.

³² See *BDS Order*, 32 FCC Rcd at 3476, para. 32 (finding that UNE DS1 and DS3 Loops and DS1 and DS3 BDS channel terminations "are particularly close substitutes")

³³ See, e.g., CenturyLink Reply at 11; see also *Qwest Omaha Order*, 20 FCC Rcd at 19449, para. 68 (finding that "with regard to the enterprise market, Qwest has provided evidence that a number of carriers have had success competing for enterprise services using DS1 and DS3 special access channel terminations obtained from Qwest").

³⁴ See *supra* para. 52.

19. We disagree with the implication in the Chief Counsel's comments that the new regulations offer no economic benefit.³⁵ In implementing these regulatory changes, the Commission is pursuing its Congressionally mandated goal of ensuring deployment of next-generation networks and services. Pursuant to the provisions of the 1996 Act, the Commission revises its unbundling and resale requirements to account for changes in communications service markets where competition among incumbent and competitive LECs has flourished and UNEs are no longer necessary to facilitate market entry. Congress authorized the Commission to forbear from any regulatory obligations once the agency determined that they are obsolete, and encouraged the Commission to use forbearance and other means to encourage deployment of advanced telecommunications capability and remove barriers to infrastructure deployment.³⁶ Promoting investment in innovation and advanced technologies can only provide greater economic benefits for all parties involved.

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

20. 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 rules adopted herein.³⁷ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."³⁸ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.³⁹ A "small business concern" is one which (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).⁴⁰

21. In this section, we further describe and estimate the number of small entity licensees and regulatees that may be affected by our action. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the number of commercial wireless entities, appears to be the data that the Commission publishes in its *Trends in Telephone Service* report.⁴¹ The SBA has developed small business size standards for wireline and wireless small businesses within the three commercial census categories of Wired Telecommunications Carriers,⁴² Paging,⁴³ and Cellular and Other Wireless Telecommunications.⁴⁴ Under these categories, a

³⁵ See SBA Advocacy Reply at 4.

³⁶ See 47 U.S.C. §§ 160(a), 1302(a).

³⁷ *Id.* § 604(a)(3).

³⁸ *Id.* § 601(6).

³⁹ 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" set forth 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 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."

⁴⁰ 15 U.S.C. § 632.

⁴¹ FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, Table 5.3, Page 5-5 (May 2004) (*Trends in Telephone Service*). This source uses data that are current as of October 22, 2003.

⁴² 13 CFR § 121.201, North American Industry Classification System (NAICS) code 513310 (changed to 517110 in Oct. 2002).

⁴³ 13 CFR § 121.201, NAICS code 513321 (changed to 517211 in Oct. 2002).

⁴⁴ 13 CFR § 121.201, NAICS code 513322 (changed to 517212 in Oct. 2002).

business is small if it has 1,500 or fewer employees. Below, using the above size standards and others, we discuss the total estimated numbers of small businesses that might be affected by our actions.

22. 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.”⁴⁵ SBA 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.⁴⁶ 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.

23. *Wired Telecommunications Carriers.* 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.⁴⁷ According to Census Bureau data for 1997, there were 2,225 firms in this category, total, that operated for the entire year.⁴⁸ Of this total, 2,201 firms had employment of 999 or fewer employees, and an additional 24 firms had employment of 1,000 employees or more.⁴⁹ Thus, under this size standard, the great majority of firms can be considered small.

24. *Incumbent Local Exchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services (LECs). 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.⁵⁰ According to Commission data,⁵¹ 1,310 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,310 carriers, an estimated 1,025 have 1,500 or fewer employees and 285 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our proposed action.

25. *Competitive Local Exchange Carriers, 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 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.⁵² According to Commission data,⁵³ 563 carriers have reported that they are engaged in the provision of either CAP services or competitive LEC services. Of these 563 carriers, an estimated 472 have 1,500 or fewer employees and 91 have more than 1,500 employees. In addition, 14 carriers have reported that they are “Shared-Tenant Service

⁴⁵ 15 U.S.C. § 632.

⁴⁶ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (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.” See 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

⁴⁷ 13 CFR § 121.201, NAICS code 513310 (changed to 517110 in Oct. 2002).

⁴⁸ 1997 Economic Census, Establishment and Firm Size, Table 5, NAICS code 513310 (issued Oct. 2000).

⁴⁹ *Id.* The 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 “Firms with 1,000 employees or more.”

⁵⁰ 13 CFR § 121.201, North American Industry Classification System (NAICS) code 517110 (changed from 513310 in October 2002).

⁵¹ *Trends in Telephone Service* at Table 5.3.

⁵² 13 CFR § 121.201, NAICS code 517110 (changed from 513310 in October 2002).

⁵³ *Trends in Telephone Service* at Table 5.3.

Providers,” and all 14 are estimated to have 1,500 or fewer employees. In addition, 37 carriers have reported that they are “Other Local Service Providers.” Of the 37, an estimated 36 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, 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 that may be affected by our proposed action.

26. *Interexchange Carriers (IXCs).* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. 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.⁵⁴ According to Commission data,⁵⁵ 281 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 254 have 1,500 or fewer employees and 27 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by our proposed action.

27. *Operator Service Providers (OSPs).* Neither the Commission nor the SBA has developed a small business size standard specifically for OSPs. 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.⁵⁶ According to Commission data,⁵⁷ 23 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 22 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our proposed action.

28. *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.⁵⁸ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁹ 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.⁶⁰ Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities.

29. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to “Other Toll Carriers.” This category includes toll carriers that do not fall within the categories of interexchange carriers, OSPs, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or

⁵⁴ 13 CFR § 121.201, NAICS code 517110 (changed from 513310 in October 2002).

⁵⁵ *Trends in Telephone Service* at Table 5.3.

⁵⁶ 13 CFR § 121.201, NAICS code 517110 (changed from 513310 in October 2002).

⁵⁷ *Trends in Telephone Service* at Table 5.3.

⁵⁸ 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).

⁵⁹ 13 CFR § 121.201 (NAICS code 517911).

⁶⁰ 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&prodTpe=table (last visited Mar. 26, 2018).

fewer employees.⁶¹ According to Commission's data, 65 companies reported that their primary telecommunications service activity was the provision of other toll services.⁶² Of these 65 companies, an estimated 62 have 1,500 or fewer employees and three have more than 1,500 employees.⁶³ Consequently, the Commission estimates that most "Other Toll Carriers" are small entities that may be affected by the rules and policies adopted herein.

30. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of "Paging"⁶⁴ and "Cellular and Other Wireless Telecommunications."⁶⁵ Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 1997 show that there were 1,320 firms in this category, total, that operated for the entire year.⁶⁶ Of this total, 1,303 firms had employment of 999 or fewer employees, and an additional 17 firms had employment of 1,000 employees or more.⁶⁷ Thus, under this category and associated small business size standard, the great majority of firms can be considered small. For the census category Cellular and Other Wireless Telecommunications, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the entire year.⁶⁸ Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.⁶⁹ Thus, under this second category and size standard, the great majority of firms can, again, be considered small.

31. *Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for 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.⁷⁰ The SBA has approved these definitions.⁷¹ The Commission auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31

⁶¹ 13 CFR § 121.201, NAICS code 513310 (changed to 517110 in Oct. 2002).

⁶² *Trends in Telephone Service* at Table 5.3.

⁶³ *Id.*

⁶⁴ 13 CFR § 121.201, NAICS code 513321 (changed to 517211 in October 2002).

⁶⁵ 13 CFR § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

⁶⁶ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued October 2000).

⁶⁷ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued October 2000). The 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 "Firms with 1000 employees or more."

⁶⁸ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued October 2000).

⁶⁹ U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued October 2000). The 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 "Firms with 1000 employees or more."

⁷⁰ *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).

⁷¹ See Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration (filed December 2, 1998).

licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity. An auction for one license in the 1670-1674 MHz band commenced on April 30, 2003 and closed the same day. One license was awarded. The winning bidder was not a small entity.

32. *Internet Service Providers.* While ISPs are only indirectly affected by our present actions, and ISPs are therefore not formally included within this present FRFA, we have addressed them informally to create a fuller record and to recognize their participation in this proceeding. The SBA has developed a small business size standard for ISPs. This category comprises establishments “primarily engaged in providing direct access through telecommunications networks to computer-held information compiled or published by others.”⁷² Under the SBA size standard, such a business is small if it has average annual receipts of \$21 million or less.⁷³ According to Census Bureau data for 1997, there were 2,751 firms in this category that operated for the entire year.⁷⁴ Of these, 2,659 firms had annual receipts of under \$10 million, and an additional 67 firms had receipts of between \$10 million and \$24,999,999.⁷⁵ Thus, under this size standard, the great majority of firms can be considered small entities.

33. *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.⁷⁶ The SBA has developed a small business size standard for “All Other Telecommunications,” which consists of all such firms with gross annual receipts of \$35 million or less.⁷⁷ 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.⁷⁸ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

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

34. The objective of the new regulatory framework is to encourage the deployment of next-generation networks and to unburden incumbent LECs where there is substantial evidence of facilities-based competition and market entry. Beyond the benefits that providers will enjoy from a decreased regulatory burden on their day-to-day operations, these changes will not affect the reporting, recordkeeping, or other compliance requirements of carriers, including small entities.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and

⁷² Office of Management and Budget, North American Industry Classification System, page 515 (1997). NAICS code 514191, “On-Line Information Services” (changed to current name and to code 518111 in October 2002).

⁷³ 13 CFR § 121.201, NAICS code 518111.

⁷⁴ U.S. Census Bureau, 1997 Economic Census, Subject Series: “Information,” Table 4, Receipts Size of Firms Subject to Federal Income Tax: 1997, NAICS code 514191 (issued October 2000).

⁷⁵ *Id.*

⁷⁶ 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).

⁷⁷ 13 CFR § 121.201 (NAICS Code 517919).

⁷⁸ 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.”).

Significant Alternatives Considered

35. 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 or reporting requirements under the rule for 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 small entities.⁷⁹

36. In arriving at the conclusions described above, the Commission considered various alternatives, which it rejected or accepted for the reasons set forth in the body of this Order, and made certain changes to the rules to reduce undue regulatory burdens, consistent with the Communications Act and with guidance received from the courts. These efforts to reduce regulatory burden will affect both large and small carriers. The significant alternatives that commenters discussed and that we considered are as follows.

37. *Maintaining the status quo.* The main alternative plan that was suggested in the comments was to simply leave the rules as they are.⁸⁰ We decline to do so, in light of the importance of deployment of facilities-based competition and next-generation infrastructure, which is one of the central motivations behind this Order as well as the Commission's congressionally mandated goal.

38. *Business Data Services/DS1 & DS3 Loops.* In this Order, we have limited unbundling of DS1 and DS3 loops to areas where there is insufficient evidence of competition. In reaching this conclusion, we considered comments from small competitive LECs, who in general would prefer greater access to these UNEs. We rejected their arguments on the ground that the reasonably efficient competitor would not rely on DS1 or DS3 loops as reasonably efficient technology for market entry.⁸¹ Furthermore, we find that commenters do not adequately consider the prospect of competitive deployment nor the advantages held out by such deployment, where feasible, for consumers and carriers alike.

39. *Transition Plans.* The Order also sets out transition plans to govern the migration away from UNEs where a particular element is no longer available on an unbundled basis. We have considered various comments indicating that many small businesses have built their business plans on the basis of continued access to UNEs and have worked to ensure that the transition plans will give competing carriers a sufficient opportunity to transition to alternative facilities or arrangements.⁸² This alternative represents a reasonable accommodation for small entities and others, which we believe will ultimately result in an orderly and efficient transition. Therefore, as set forth in the Order, we have adopted plans to grandfather unbundled access to dark fiber loops for eight years where they are already in use; for DS1 loops, a two-part transition of 24 months for new orders and 42 months for existing loops; for DS0 loops, a 24 month period for new orders and a 48-month grandfathering period for all competitive LEC customers; for OSS UNEs, a period equivalent to the respective UNE the OSS UNE is used to order and manage; and a three-year transition period for those who currently utilize other UNEs that will cease to be available.

G. Report to Congress

40. The Commission will send a copy of the Report and Order, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.⁸³ In addition, the Commission will send a copy of the Report and Order, including this FRFA, to the Chief Counsel for Advocacy of the

⁷⁹ 5 U.S.C. § 603(c)(1) – (c)(4).

⁸⁰ See SBA Advocacy Reply at 4.

⁸¹ See, e.g., R Street Institute Comments at 6-8; CenturyLink Reply at 40.

⁸² See generally INCOMPAS Reply with Attachments.

⁸³ See 5 U.S.C. § 801(a)(1)(A).

SBA. A copy of the Order and FRFA (or summaries thereof) will also be published in the Federal Register.⁸⁴

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

41. None.

⁸⁴ See 5 U.S.C. § 604(b).