



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 51

[WC Docket No. 19-308; FCC 19-119; FRS 16321]

Modernizing Unbundling and Resale Requirements in an Era of Next-Generation

Networks and Services

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Federal Communications Commission seeks comment on a number of proposals to modernize unbundling and resale obligations applicable to incumbent local exchange carriers (incumbent LECs) for local loops, dark fiber transport, and other types of network elements. The Commission also seeks comment on costs associated with specific unbundled network elements and resold services and on a transition period for all unbundling and resale relief that may be provided.

DATES: Comments are due on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, and reply comments are due on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by WC Docket No. 19-308, by any of the following methods:

- Federal Communications Commission's Web Site: <https://www.fcc.gov/ecfs/>. Follow the instructions for submitting comments.

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

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Michele Levy Berlove, Competition Policy Division, Wireline Competition Bureau, at (202) 418-1477, Michele.Berlove@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission’s Notice of Proposed Rulemaking (NPRM) in WC Docket No. 19-308, adopted on November 22, 2019 and released on November 25, 2019. The full text of the document is available at <https://docs.fcc.gov/public/attachments/FCC-19-119A1.pdf>. The full text is also available for public inspection during regular business hours in the FCC Reference Information Center, Portals II, 445 12th Street, SW, Room CY-A257, Washington, DC 20554. To request materials in accessible formats for people with disabilities (e.g. braille, large print, electronic files, audio format, etc.) or to request reasonable accommodations (e.g. accessible format documents, sign language interpreters, CART, etc.), send an email to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice) or (202) 418-0432 (TTY).

Synopsis

I. NOTICE OF PROPOSED RULEMAKING

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

A. Modernizing Unbundling Obligations for Today’s Communications Marketplace

2. Recognizing that the “purpose of the Act is not to provide the widest possible

unbundling,” but “to stimulate competition—preferably genuine, facilities-based competition,” we seek comment on how best to modernize incumbent LECs’ remaining unbundling obligations. While UNEs in some circumstances have provided a path for competitors to enter markets they might not otherwise be able to have economically justified entering, the Commission has long recognized that “excessive network unbundling requirements tend to undermine the incentives of both incumbent LECs and new entrants to invest in new facilities and deploy new technology.” Therefore, the Commission has never viewed the UNE obligations as being of infinite, or even indefinite, duration, particularly in light of Congress’s inclusion in the 1996 Act of the means for the Commission to analyze the continued necessity of those requirements. Indeed, Congress specifically contemplated a future time when the continued need for section 251(c) unbundling obligations may be reevaluated. Today’s marketplace is characterized by robust intermodal competition for voice and broadband services that may render many remaining unbundling obligations unnecessary or even actively harmful by impeding the deployment of and transition to more technologically advanced networks and services. Our proposals in this NPRM are informed by recent evidence demonstrating the availability of intermodal competition, as well as specific Commission findings based on comprehensive industry data that certain last mile loop and transport unbundling obligations are no longer necessary. We acknowledge, however, that there remains a digital divide between urban areas, which boast increasing numbers of intermodal broadband providers, and rural areas. Because UNEs may have continued benefits in providing broadband access to Americans in rural areas—where achieving scale is harder and thus competitive entry is harder—we propose to maintain existing unbundling of mass market broadband-capable loops in rural areas.

1. UNE Loops

3. Loops generally provide “the last mile of a carrier’s network that enables the end-user to originate and receive communications.” Incumbent LECs are required to provide unbundled access to three general types of loop facilities: (1) DS1 and DS3 loops, (2) DS0 loops, and (3) the TDM-capabilities, features, and functionalities of hybrid copper/fiber loops. Incumbent LECs are also required to provide unbundled access to 64 kbps voice-grade channels over fiber loops to existing customers. Incumbent LECs must also provide unbundled access to UNE Analog Loops in non-price cap incumbent LEC service areas. In adopting loop unbundling requirements, the Commission clarified that all loop types may be used “across a range of customer categories” and that the UNE requirements apply equally to all classes served. At the same time, the Commission observed that the different types of loop facilities “as a practical matter, typically serve distinct classes of customers, resulting in different economic considerations for competitive carriers seeking to self-deploy.” We factor these observations and considerations, along with the “reasonably efficient competitor” aspect of the impairment standard, into our proposals below.

a. UNE DS1 and DS3 Loops

4. The Commission’s rules require incumbent LECs to unbundle DS1 and DS3 loops, which are last-mile transmission facilities operating at a total digital signal speed of 1.544 Mbps and 44.736 Mbps, respectively. These loops, which are used primarily to serve enterprise customers, are not available as UNEs in all locations. Rather, the Commission limited the availability of UNE DS1 and DS3 Loops based on “both a minimum number of business lines served by a wire center and the presence of a minimum number of fiber-based collocators,” noting that “[a] high concentration of business lines generally indicates a likely concentration of

large, multi-story commercial buildings,” which a reasonably efficient competitor could serve by building its own fiber-based facilities. Under our rules, the relevant thresholds for unbundling differ as to DS1 loops and DS3 loops. UNE DS1 Loops are only available “to any building not served by a wire center with at least 60,000 business lines and at least four fiber-based collocators.” UNE DS3 Loops are only available “to any building not served by a wire center with at least 38,000 business lines and at least four fiber-based collocators.” The Commission also capped the availability of unbundled DS1 and DS3 loops in a single building, recognizing that at certain thresholds of total bandwidth demanded at a particular location, it was feasible for competitive providers to self-provision and thus no impairment existed.

5. We propose to find no impairment with respect to UNE DS1 and DS3 Loops in (1) counties served by price cap incumbent LECs found to be competitive pursuant to the *BDS Order*; and (2) the study areas deemed competitive as a result of our decision to allow certain rate-of-return incumbent LECs to elect incentive regulation for their business data services, subject to a narrow residential carve-out described below. We do not include the “Counties Deemed Grandfathered” within our category of BDS competitive counties. We refer collectively herein to the BDS competitive counties and the competitive rate-of-return carrier study areas as the BDS Competitive Counties and Study Areas. We seek comment on this proposal.

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

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

7. We believe the *BDS Order*'s findings eliminating ex ante pricing regulation of DS1 and DS3 business data services are applicable to the unbundling context. If we eliminate these specific UNEs in the BDS Competitive Counties and Study Areas, DS1 and DS3 services will remain available for purchase on a commercial basis as business data services. We understand that there are no material operational or performance distinctions between UNE DS1 and DS3 Loops and DS1 and DS3 business data services. The Commission has previously found that these two types of services are "particularly close substitutes" and thus are a part of the same competitive environment. Do commenters agree? Is there any meaningful difference between UNE DS1 and DS3 Loops and BDS DS1 and DS3 end user channel terminations or their terms of service, other than pricing? Even if there is such a difference, does unbundled access to UNE DS1 and DS3 Loops remain necessary in BDS Competitive Counties or Study Areas in the current communications marketplace with its extensive and increasing intermodal competition? In light of the increasing demand for higher-bandwidth and packet-based data services and the corresponding declining demand for DS1 and DS3 services, do DS1 and DS3 loops constitute reasonably efficient technology such that a reasonably efficient competitor would rely on them to compete for BDS customers?

8. Our proposal to find no impairment for DS1 and DS3 loops in BDS Competitive Counties and Study Areas is also based on our findings about the availability of competitive fiber in the *BDS Remand Order*. In that *Order*, we calculated that within BDS Competitive Counties, more than 94% of locations with BDS demand were served by incumbent LEC wire centers within a half mile of competitive fiber, and more than 97% of locations with BDS demand were either themselves within a half mile of competitive fiber or served by an incumbent LEC wire center within a half mile of competitive fiber. We reasoned that the data used in making those

findings likely understated competition given that “cable companies and other competitors frequently bypass ILEC networks entirely.” Moreover, the data underlying our analysis was collected in 2013, and “competitive fiber providers have continued to build new fiber routes in part to compete with incumbent LECs’ BDS offerings.” We thus propose to infer that the small fraction of enterprise locations not within a half mile of competitive fiber or served by an incumbent LEC wire center within a half mile of competitive fiber, i.e., less than 3% of all enterprise locations in price cap incumbent LEC counties, would face the same non-impairment conditions for competitive providers. We seek comment on this reasoning.

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

10. *Proposed Exemption for Residential Broadband in Rural Areas.* We propose to narrowly exempt the availability of UNE DS1 Loops from any unbundling relief such that UNE DS1 Loops will remain available for residential broadband service along with telecommunications service in rural census blocks. Although UNE DS1 and DS3 Loops are used largely to serve enterprise customers, there is evidence in the record that some competitive LECs use UNE DS1 Loops to provision broadband to residential customers for whom no other

broadband service is available and the distance is too great to provision such service using DS0s. The findings regarding DS1s and DS3s for the enterprise market may not translate cleanly to the rural, residential market. We seek comment on this view.

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

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

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

same competitive findings and public interest determinations made in the *BDS Order* and the *RoR BDS Order*. Do commenters agree?

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

b. UNE DS0 Loops

15. The Commission’s rules require incumbent LECs to make UNE DS0 Loops available nationwide. These broadband-capable loops are used primarily to serve mass market residential customers, in contrast to UNE DS1 and DS3 Loops. UNE DS0 Loops are typically used to provide both voice and broadband Internet access service using various xDSL technologies. We also note that some competitive LECs use DS0s to provide Ethernet-over-copper and other higher-speed DSL service using bonded DS0s to certain business customers. Where UNE DS0 Loops remain available, competitive LECs may continue to use these loops for that purpose.

16. We propose to find that competitive LECs are no longer impaired without access to UNE DS0 Loops in urban census blocks. We base our proposal on the relatively low and

falling barriers to entry that competitive providers face in providing broadband in urban areas, particularly using alternative technologies. We may rely on the availability of broadband in any forbearance or impairment analysis, consistent with Congress's mandate in section 706 that we "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans." While our rules require competitive LECs to use UNEs to provision telecommunications services, once they do so, they may use those same UNEs to provision information services, i.e., broadband. By the same token, because facilities-based broadband can be used to provide the same residential services that can be provided with UNEs today, we rely on entry into, and current competition within, the broadband marketplace in considering whether impairment persists as to UNE DS0 Loops. Because facilities-based broadband service provides residential consumers similar (and typically more advanced) voice and Internet access capabilities to those that can be provided with UNE DS0 Loops, we rely on evidence of entry into, and current competition within, the broadband marketplace in considering whether impairment persists as to UNE DS0 Loops in urban census blocks. Do commenters agree with this approach? We recognize that rural areas present different deployment considerations than urban areas and thus do not propose to include rural census blocks in our proposed non-impairment finding.

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

providers, and 87% of households in urban census blocks have at least two 10/1 Mbps providers, generally the cable provider and the incumbent LEC, all without the use of UNEs. These figures exclude satellite providers and competitive LECs providing copper-based services. We assume any non-incumbent LEC provider offering copper-based services uses UNEs. We infer from this data that as cable continues to vigorously compete with other wireline ISPs, cable providers will build out to the remaining urban census blocks in the near future and similarly, competing facilities-based wireline providers will upgrade their networks to better compete with cable. We seek comment on this analysis.

18. Our proposal also relies on recent evidence demonstrating that increasing numbers of competitors using wireless technologies are entering the residential market for broadband services in urban areas without the use of UNEs. For example, Verizon has announced plans to deploy 5G-based fixed wireless service in 30 geographic markets, mostly outside its incumbent LEC territory, Starry is deploying fixed wireless service in major urban centers, and other WISPs are specifically targeting urban customers as well. AT&T's CEO recently told investors that over the next three to five years, "unequivocally 5G will serve as a . . . fixed broadband replacement product." These developments are consistent with the observations in the *2018 Communications Marketplace Report*, where the Commission noted that advancements in fixed wireless service technology will produce speeds that will ultimately rival what can be offered by fiber. Indeed, even certain parties opposing USTelecom's recent request for forbearance noted that 5G "is ideally suited for urban areas with high building density." Relatedly, the Commission has long recognized that the costs for new deployment are significantly lower in urban areas. Indeed, one of the key assumptions of the Commission's Connect America Fund model, which determines how scarce universal service funds are

allocated for high-cost areas, is that broadband deployment costs less in urban areas than in rural areas. The Commission has also acted to lower barriers to entry and thereby spur further intermodal competition by opening additional spectrum for licensed and unlicensed uses, streamlining the process of small cell siting, and modernizing pole attachment rules to reduce the cost and time it takes to string fiber on poles. We propose to find on the basis of these factors taken together that entry barriers have been reduced and, in many areas, eliminated so significantly that a reasonably efficient competitor is no longer impaired without access to UNE DS0 Loops in urban census blocks and that unbundling of DS0 loops in such areas is no longer warranted. We seek comment on this proposal. Do commenters agree that the increasing wireless broadband deployment and entry in urban areas constitute evidence that a reasonably efficient competitor using reasonably efficient technologies is not impaired without access to these UNEs?

19. In these urban areas where advanced services are available to consumers from providers that do not rely on UNE DS0 Loops, we believe a continued DS0 unbundling requirement will artificially and unnecessarily slow the consumer transition away from services provided over legacy copper loops to more advanced networks and services. We therefore believe that eliminating DS0 unbundling in urban areas would better advance the 1996 Act's goal of broadband deployment. Furthermore, new entrants using fixed wireless and other technologies may specifically target the relatively few urban areas with only one 25/3 Mbps provider as offering the most economically-feasible case for entry, because of the density and relative lack of competition in these areas, particularly if UNE DS0 Loops are no longer available. We seek comment on these views.

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

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

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

where a competitive LEC supplies high-speed broadband over UNE DS0 Loops? If so, where? And would granting relief promote or deter additional investment in high-speed facilities in such areas?

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

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

25. Our current copper retirement rules permit incumbent LECs to obtain relief from the unbundling requirements for DS0 loops by deploying fiber or other next-generation networks and then retiring their copper facilities pursuant to our network change disclosure rules. Incumbent LECs may retire their copper facilities without the need to seek our authorization. We seek comment on whether the availability of this option has any bearing on the need for unbundling relief. What impact, if any, does an incumbent LEC’s ability to achieve relief

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

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

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

28. For purposes of such a test, we would expect to include fixed wireless providers, but note that fixed wireless penetration rates are low in our most recent publicly available Form

477 data. Nonetheless, recent developments in fixed wireless services have lowered the barriers to entry by fixed wireless providers, and provided them with the means of bringing effective competition to urban areas. We seek comment on this analysis. Does the presence of fixed wireless providers in a census block mean that barriers to entry are low (suggesting no impairment of entry) or that competition is thriving (suggesting forbearance is appropriate)?

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

c. UNE Narrowband Voice-Grade Loops

30. Under our rules, incumbent LECs must provide three specific types of unbundled narrowband voice-grade loops: UNE Analog Loops, 64 kbps voice-grade channels over last-mile fiber loops when an incumbent LEC retires copper, and the TDM capabilities of hybrid loops. The Commission forbore from new 64 kbps unbundling obligations in 2015 but grandfathered existing users. Voice-grade loops are used almost exclusively for the provision of voice-grade service, which we have found customers are migrating away from in favor of IP- and wireless-based voice services provided by multiple intermodal providers. These include facilities-based fixed voice providers such as cable companies providing VoIP, mobile wireless facilities-based providers and resellers, and VoIP providers offering over-the-top services via broadband.

31. We propose to eliminate these unbundling obligations nationwide as competitors do not face significant barriers to entering the voice-service marketplace. Indeed, incumbent LECs provided only about 12% of voice subscriptions in 2017. As we have previously found,

rather than a foothold for new entrants into the marketplace, these legacy regulatory obligations have become a vice, “trapping incumbent LECs into preserving outdated technologies and services at the cost of a slower transition to next-generation networks and services that benefit American consumers and businesses.” We seek comment on our specific proposals for each of the three types of narrowband voice-grade copper loops described below.

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

33. *UNE Analog Loops.* We propose to extend the forbearance for UNE Analog Loops to all remaining service areas where this unbundling obligation still applies. In the recent USTelecom forbearance proceeding, we granted relief from unbundling requirements for UNE Analog Loops to price cap incumbent LECs in their service areas. We propose extending this forbearance relief nationwide for the same reasons we stated in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, including the extensive intermodal competition present in the voice marketplace, the harmful marketplace distortions generated by outdated regulations, and the reduced incentives for both incumbent and competitive LECs to invest in their own facilities and to transition to next-generation networks. We seek comment on this proposal.

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

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

36. *Grandfathered 64 kbps Fiber Loops.* We propose to eliminate the requirement that competitive LECs continue to receive unbundled access to the previously grandfathered 64 kbps voice channels over fiber loops. We propose to reach this outcome whether evaluated under the impairment standard of section 251, the forbearance criteria of section 10, the general standards governing Commission action under provisions such as sections 4, 201(b), and 303(r),

or any combination thereof. We seek comment on this proposal. The Commission forbore from this requirement on a nationwide basis for all incumbent LECs in 2015, finding this unbundling burden on fiber deployment to be disproportionate to the “very limited” and decreasingly relevant purpose the requirement serves—to protect narrowband voice competition as networks transition from copper to fiber. At the same time, the Commission grandfathered the obligation as to existing UNE 64 kbps voice channels over fiber loops.

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

38. To the extent competitors still rely on the grandfathered 64 kbps voice channel over fiber loops, we seek comment on whether such competitors remain impaired without access to this grandfathered requirement, and whether the three-part forbearance standard would be met for the same reasons they are met with respect to our UNE Analog Loop forbearance in price cap incumbent LEC service areas. We believe that the respective costs already incurred by both

incumbent and competitive LECs with respect to this grandfathered requirement is outweighed by the costs of continuing to obligate incumbent LECs to maintain and support this legacy equipment and service, and the societal costs that retaining this grandfathered unbundling obligation has on the transition to IP-based networks and services. We seek comment on this belief, including what role it should play in our analysis. What benefits would be gained by eliminating this obligation? Would competitive LECs or consumers be harmed by eliminating their access to the grandfathered 64 kbps voice channel? Do any competitive LECs still use the grandfathered 64 kbps voice channel?

39. *TDM Capabilities of Hybrid Loops.* Hybrid loops are local loops “composed of both fiber optic cable, usually in the feeder plant, and copper wire or cable, usually in the distribution plant.” In the *Triennial Review Order*, the Commission declined to order unbundling of the packet-based capabilities of hybrid loops. 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.

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

ensure that the charges, practices, classifications, or regulations are just and reasonable and are not unjustly or unreasonably discriminatory; (2) continued UNE Hybrid Loop requirements are necessary for the protection of consumers; and (3) forbearance from UNE Hybrid Loop requirements is consistent with the public interest. Do any competitive LECs today use the unbundled TDM capabilities of hybrid loops to provision any broadband services?

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

42. Alternatively, we seek comment on whether we should find that competitors are no longer impaired without unbundled access to the TDM-capabilities, features, and functionalities of hybrid loops. In the 2003 *Triennial Review Order*, the Commission concluded that competitors were impaired on a nationwide basis without access to these UNEs for serving mass market customers. The Commission went on to note, however, that this impairment would diminish over time as more and more fiber is deployed. Has sufficient fiber been deployed in the sixteen years since the *Triennial Review Order* such that competitors are no longer impaired without access to UNE Hybrid Loops for the purpose of serving mass market residential customers? In today's marketplace, would a reasonably efficient competitor using reasonably

efficient technology seek to provide voice service using the TDM capabilities of hybrid loops? Would a reasonably efficient competitor using reasonably efficient technology seek to provide broadband service using the TDM capabilities of hybrid loops? Recognizing that hybrid loops are an important step in the deployment of fiber to the home, does any continued unbundling obligation with respect to these loops, either for broadband or narrowband services, threaten to frustrate deployment of and transition to next-generation networks and services? Commenters should specify whether any impairment or non-impairment faced by competitors occurs on a nationwide basis or only in certain geographic areas. Commenters should also provide data to support their contentions.

d. Subloops

43. Subloops are portions of a loop or “smaller included segment[s] of an incumbent LEC’s local loop plant.” Subloops are generally ordered with the intention of taking “the competitor all the way to the customer.” Our rules impose UNE obligations for two types of subloops—copper and multiunit premises subloops. Subloop unbundling obligations only apply to incumbent LECs’ distribution loop plant. The Copper UNE Subloop is a portion of a copper loop, or hybrid loop, comprised entirely of copper wire or copper cable that acts as a transmission facility between any point of technically feasible access in an incumbent LEC’s outside plant and the end-user customer premises. The Copper UNE Subloop includes inside wire owned or controlled by the incumbent LEC and the features, functions, and capabilities of the copper loop. Incumbent LECs must provide competitive LECs unbundled access to Copper UNE Subloops for the provision of narrowband and broadband services.

44. 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.” Incumbent LECs must offer unbundled access to these subloops necessary to access wiring at or near a multiunit customer premises, i.e., all incumbent LEC loop plant between the minimum point of entry at a multiunit premises and the point of demarcation. Unlike Copper UNE Subloops, the Multiunit Premises UNE Subloop includes the entirety of the loop plant regardless of the capacity level or type of loop the requesting carrier will provision to its customer, that is, including fiber or hybrid loops. Some competitive LECs state that they use Multiunit Premises UNE Subloops to “access loops otherwise unavailable because of fiber feeder.” The Multiunit Premises UNE Subloop also includes any inside wiring owned and controlled by the incumbent LEC.

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

46. We believe competitive LECs’ ability to serve their current customer base with their own facilities-based network will be unaffected if we eliminate Copper UNE Subloop obligations, noting that incumbent LECs indicate that they sell a negligible number of Copper UNE Subloops. Do commenters agree? If not, commenters should specify which types of services, customers, and geographic areas they believe our Copper UNE Subloop unbundling proposal would impact. If these unbundled subloops are eliminated, will incumbent LECs still provide competitive LECs access to subloops on a commercial basis to the extent such access is

sought? Are there alternatives for competitive LECs to reach their end-user customers if we eliminate Copper UNE Subloop obligations? We also believe that eliminating Copper UNE Subloops in the same instances where we propose to eliminate the underlying UNE Loop obligation will be administratively feasible. Do commenters agree? If not, how might we ease any administrative difficulties?

47. We seek more specific comment on the Multiunit Premises UNE Subloop. We note that these particular unbundling obligations largely came about to address issues related to facilities-based competitors accessing the customer's location where access to the premises was controlled or managed by someone other than the customer. Should we treat the Multiunit Premises UNE Subloop differently from the Copper UNE Subloop? Competitive LECs assert that special barriers still exist to accessing multiunit premises. Are they correct, and if so, do such barriers justify retaining unbundled access to subloops for multiunit premises wiring? Are these barriers independent of accessing the Multiunit Premises UNE Subloop, such that retaining this unbundled element would still not enable competitive LECs to access customers in such premises? Are there alternatives to Multiunit Premises UNE Subloops to access multiunit premises? Do the Commission's rules prohibiting LECs from entering into exclusive access contracts with the owners of residential and commercial multi-tenant environments make unbundled access to these subloops unnecessary? We seek comment on any issues we should consider in evaluating the extent to which Multiunit Premises UNE Subloops should remain available on an unbundled basis to best further the objectives of the Act.

2. UNE Dark Fiber Transport

48. Dark fiber transport is deployed fiber optic cable between incumbent LEC wire centers that has not been "lit" through the addition of optronic equipment that would make it

capable of carrying telecommunications. This dark fiber facility is typically referred to as “interoffice dark fiber.” The Commission’s transport unbundling rules define when an incumbent LEC is required to unbundle its interoffice dark fiber and make it available to a requesting carrier. Where so obligated, the incumbent LEC must lease its unlit fiber, subject to availability, enabling the competitive LEC to use such dark fiber as if it were part of its own fiber network. Thus, after deploying its own electronics to light the dark fiber, the competitive LEC is able to provision service to end users served from the wire center to which the unbundled dark fiber transport terminates.

49. In the *Triennial Review Remand Order*, the Commission applied the impairment standard to limit the extent to which incumbent LECs are required to provide UNE Dark Fiber Transport. The Commission concluded that competitive LECs are not impaired without access to UNE Dark Fiber Transport when both wire centers are classified as either Tier 1 or Tier 2, reasoning that on such routes, “a reasonably efficient competitor has, or could, duplicate the facilities of the incumbent LEC.” For purposes of UNE Dark Fiber Transport, a Tier 1 wire center has at least four fiber-based collocators or at least 38,000 business lines, or both. A Tier 2 wire center is one that does not qualify as Tier 1 but has at least three fiber-based collocators or at least 24,000 business lines, or both. All other wire centers are Tier 3. As a result, all UNE Dark Fiber Transport that is leased today involves at least one Tier 3 wire center end point. Tier 3 wire centers are all wire centers that are not classified as Tier 1 or Tier 2 wire centers. The Commission has described Tier 3 wire centers as those that “show a generally low likelihood of supporting actual or potential competitive transport deployment.” We refer to these Tier 3 wire centers as “UNE triggering” wire centers.

50. In the recent *UNE Transport Forbearance Order*, we unanimously forbore from

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

51. Consistent with the analysis in the *UNE Transport Forbearance Order*, we propose finding that competitive LECs are not impaired without access to unbundled dark fiber transport to wire centers that are within a half mile of alternative fiber. The wire centers that we propose would no longer be subject to UNE Dark Fiber Transport obligations are those for which the Commission granted forbearance from UNE DS1/DS3 Transport obligations in the *UNE Transport Forbearance Order*. We seek comment on this proposal. Our proposal is based on concluding that a reasonably efficient competitor within a half mile of alternative fiber would not be impaired without access to UNE Dark Fiber Transport because it should be able to obtain such transport, if available, on a commercial basis at competitive rates, or by building its own transport network. In the *BDS Order*, the Commission assumed that the presence of a second wireline provider, in addition to the incumbent LEC, is sufficient to discipline prices for transport in areas with high fixed costs. We affirmed this finding in the *BDS Remand Order*. We infer that this same assumption would apply with respect to dark fiber assuming both the incumbent LEC and the second provider having the nearby competitive fiber network each have dark fiber available for lease. Is this assumption reasonable? Our proposal is also informed by the Commission's observation in the *Triennial Review Remand Order* that "competing carriers that use UNE Dark Fiber transport actively seek out wholesale alternatives to the incumbent LEC's fiber facilities." Does this observation still hold?

52. Our forbearance analysis in the *UNE Transport Forbearance Order* relied on the

proximity of a price cap incumbent LEC wire center to competitive lit fiber. Commenters in that proceeding claimed that lit fiber is no commercial substitute for dark fiber. However, we do not propose to consider the substitutability of lit and dark fiber to be relevant in an impairment analysis. While the Commission has previously differentiated lit from dark fiber, 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. We seek comment on whether our conclusion that the existence of a nearby competitive fiber network within a half mile necessarily implies an ability of at least one reasonably efficient competitor having the ability to deploy its own fiber such that we can reasonably infer no impairment for other competitors.

53. We also seek comment on whether we should supplement the list of incumbent LEC wire centers for which we propose to find non-impairment for UNE Dark Fiber Transport by adding any Tier 3 wire centers that are within a half mile—or potentially some longer distance—of Tier 1 or Tier 2 wire centers. Could we infer no impairment as to these wire centers, due to the proximity of either fiber-based competitors or business line density at the nearby Tier 1 and Tier 2 wire centers? We note that in the *BDS Order*, the Commission observed that competitive providers sometimes build “more circuitous route[s] in anticipation of additional demand” than the existing incumbent LEC’s route between wire centers. Moreover, we are cognizant of the *USTA II* court’s discussion of how we must consider “facilities deployment along similar routes when assessing impairment.” Should we consider this as a separate stand-alone proposal for unbundling relief from UNE Dark Fiber Transport obligations? We observe that some wire centers that are classified as Tier 3 facilities are apparently located in

urban areas, which would suggest similar business line density and the likely presence of nearby Tier 1 or Tier 2 wire centers. If we were to undertake a one-time analysis to supplement the list based on existing Tier 3 wire centers, we do not believe this would be administratively difficult. Do commenters agree? Could we rely on the wire center locations as set forth in the Local Exchange Routing Guide to determine the necessary geocoordinates to conduct such an analysis? Are there other publicly available sources that would provide better wire center location information? We ask commenters to generally comment on any administrative burdens associated with wire centers for the purposes of this supplemental proposal.

54. Are there other alternative criteria upon which we should base an impairment analysis? For example, should we find that competitive LECs are not impaired without access to UNE Dark Fiber Transport at Tier 3 wire centers where some threshold percentage of end users served by the wire center has access to at least two facilities-based providers at 25/3 Mbps without the use of UNEs? If so, should we exclude satellite and mobile service providers from counting as a facilities-based provider for this test? We would consider fixed wireless to the extent we do in our other residential competitive tests, as discussed above. Should we conclude that a reasonably efficient competitor that serves such end users could secure its own transport services without the benefit of UNE Dark Fiber Transport because at least one other non-incumbent LEC facilities-based provider has been able to serve end users without access to UNE Dark Fiber Transport? Are there advantages and disadvantages to using this test? Is it reasonable to infer that a confirmed 25/3 Mbps end user in a service area indicates the existence of transport alternatives to support a finding of non-impairment? What would be the appropriate number of, or percentage of, subscribers served by an individual wire center for us to make this determination? Should we aggregate subscribers at multiple wire centers in a geographic area?

Is it necessary for the Commission to identify all Tier 3 wire centers ex ante, before concluding whether a finding of non-impairment is appropriate, and, if so, through what public sources would the Commission be able to create a comprehensive list of such wire centers?

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

56. Incumbent LECs generally disputed the relevance of UNE Dark Fiber Transport in today's marketplace, pointing to how few such UNEs are leased from the largest incumbent providers. Verizon, for example, claimed that it both buys a *de minimis* amount of UNE Dark Fiber Transport and sells very small volumes. USTelecom described competitive LECs' use of UNE Dark Fiber Transport as playing a "negligible role in the marketplace." Moreover, USTelecom observed that the four largest incumbent LECs leased only 20,000 to 60,000 combined UNE Dark Fiber Transport miles to competitive LECs, compared to nearly 12 million dark fiber transport miles that were made available via commercial leasing. Incumbent LECs also dispute that UNE Dark Fiber Transport is primarily used by competitive LECs to reach end users in rural areas. For those competitive LECs that rely on UNE Dark Fiber Transport to provision service to a substantial number of end users, CenturyLink reasoned that such demand would justify deployment of its own facilities.

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

3. Other UNEs

a. Network Interface Devices

58. The network interface device, or NID, which is always located at the customer's premises, is defined as any means of interconnecting the incumbent LEC's distribution plant to wiring at a customer premises location. Apart from its obligation to provide the NID functionality as part of an unbundled loop or subloop, 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. 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. An incumbent LEC must permit a requesting carrier to connect its own loop facilities to on-premises wiring through the incumbent LEC's NID. The NID is a terminal endpoint for loops. 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, or a customer had no need for a duplicate NID.

59. Based on the record developed in the USTelecom forbearance proceeding, we propose to forbear from the UNE NID obligation because it appears that stand-alone NIDs are not necessary for competitive LECs to access potential customers. Competitive and incumbent LECs have described substantially changed circumstances in the last two-plus decades such that this network element may no longer serve any meaningful purpose. Competitive carriers are on record stating that “[a]s a practical matter, [they] do not purchase network interface device elements separate from unbundled loops.” AT&T is also on record stating it sells no UNE NIDs. We seek comment on our view that the lack of stand-alone UNE NIDs indicates that the obligation is not necessary to ensure just and reasonable rates and to protect consumers, thus justifying forbearance.

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

b. Operations Support Systems

61. Incumbent LECs must offer nondiscriminatory access to their operations support systems, or OSS, for qualifying services on an unbundled basis. OSS consists of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information. 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." OSS is used for the provision of other UNEs, and it is also a separate stand-alone UNE that is used for interconnection and other purposes, including number porting. 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" and competitive LECs providing these services are "impaired on a national basis without access to OSS."

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

networks?

63. If we were to eliminate the UNE OSS obligation, are there any alternative OSS providers on which competitive LECs could rely, to the extent they need to do so? We seek comment on the assertions by TPx and Socket that they rely on UNE OSS to serve their non-UNE based customers. We also seek comment on whether OSS as a UNE is necessary for competitive LECs and other providers subject to number porting obligations. Is there a more efficient way to provide nondiscriminatory access to OSS? Alternatively, regardless of whether the statutory elements for forbearance are met, are competitive LECs impaired without OSS, and should we make a finding of no impairment?

4. Other Considerations

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

65. In particular, the D.C. Circuit has held that the Commission must “take into account not only the benefits but also the costs of unbundling (such as discouragement of investment in innovation),” which the Commission has done “with the costs of unbundling brought into the analysis under § 251(d)(2)’s ‘at a minimum’ language.” For example, when evaluating unbundling previously, the Commission has weighed the effects of unbundling on Congress’s exhortation in section 706 of the 1996 Act that it “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans” by

removing barriers to infrastructure investment. The Commission more recently also has cited other potential costs or harms of unbundling when addressing requests for relief from a number of legacy wireline mandates imposed on incumbent LECs stemming from the 1996 Act. Such requirements can force incumbent LECs to maintain outdated TDM equipment even when they no longer desire to offer those services to their customers, undercutting the benefits of technology transitions. They can also distort the marketplace by imposing unnecessary costs on one class of competitors alone. The Commission has also reiterated Justice Breyer’s observation that “mandatory unbundling comes at a cost, including disincentives to research and development by both incumbent LECs, competitive LECs and the tangled management inherent in shared use of a common resource.” In addition, these requirements can create disincentives for competitors to invest in their own facilities-based networks and transition their customers to next-generation services. We seek comment on the full range of those and any other relevant considerations and how they should affect our analysis regarding each network element or requirement discussed above.

66. Additionally, to the extent that the Commission has cited a given network element or requirement discussed above as a continuing obligation that would remain when granting past regulatory forbearance, we seek comment on how that should affect our analysis here. Given that forbearance petitions are addressed based on the record compiled in the relevant proceeding, we do not believe such past citations should alter our actions in this proceeding or require the continued imposition of particular requirements if the record here persuades us that relief is warranted. We seek comment on that view.

67. Conversely, we seek comment on how other aspects of our regulatory framework—such as the continued applicability of rate regulations for DS1s and DS3s in certain

areas, the imposition of a reasonable comparability benchmark for voice services in areas supported by our high-cost Universal Service Fund, or the continuing obligation of all local exchange carriers “not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of its telecommunications services”—should weigh in our analysis. We also seek comment more generally on the impact of Commission policy changes, including the recently concluded USTelecom forbearance proceeding, on the voice and broadband marketplace.

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

B. Avoided-Cost Resale

69. Except where we have forbore from such obligations, incumbent LECs must

make available at regulated wholesale rates telecommunications services that they make available to their own non-carrier retail customers. In the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, we granted price cap incumbent LECs relief from the Avoided-Cost Resale requirement. Some parties effectively seek reconsideration of our decision to forbear from the Avoided-Cost Resale obligations granted in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, rehashing arguments made in the record of that proceeding. In this NPRM, we do not revisit the decisions made in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*, but we will consider those commenters' arguments filed in the record here to the extent that they bear on the issues raised in this proceeding.

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

71. Are there reasons why non-price-cap areas may differ from price cap areas with respect to the Avoided-Cost Resale requirement that is only used to provision voice-grade service? What have been the effects of the forbearance granted for Avoided-Cost Resale in the *UNE Analog Loop and Avoided-Cost Resale Forbearance Order*? Commenters should provide specific detail as to why continued Avoided-Cost Resale requirements in non-price cap areas are or are not necessary (1) to ensure that charges, practices, classifications, or regulations are just and reasonable and are not unjustly or unreasonably discriminatory; (2) to ensure the protection of consumers; and (3) to serve the public interest. We also seek comment on the respective costs

and benefits of this proposal versus retaining the status quo, as well as whether special considerations apply to small businesses.

C. Cost-Benefit Analysis

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

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

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

D. Transition Plan

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

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

disruption.

77. What conditions, if any, should apply to a transition period? Are there special circumstances that require longer or shorter transition periods for any particular UNEs? Should we provide different transition periods for UNEs that we grant relief for based on a non-impairment finding vs. those based on forbearance? What about for Avoided Cost Resale? Should we provide a longer grandfathering period for Puerto Rico, for reasons similar to the unique Puerto Rico transition periods adopted in our recent forbearance orders?

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

79. Alternatively, we seek comment on a transition period that is shorter than three years for existing customers. In the *BDS Order*, the Commission found that the presence of a nearby potential BDS competitor would be expected to provide reasonably competitive outcomes for DS1 and DS3 services over three to five years. In the *UNE Transport Forbearance Order*, we concluded that “connecting nearby fiber . . . is unlikely to take a full three years for any individual alternative transport link,” but also noted that two years had elapsed since the *BDS Order* and a three-year transition would coincide with the outer bound of the Commission’s three to five year expectation in the *BDS Order*; in the *UNE Analog Loop and Avoided-Cost Resale Order*, we noted that a three-year period was consistent with prior Commission action and “should provide more than enough time for competitive LECs and their customers to transition.” Should we set a transition deadline of August 2, 2022, which would align the transition period with those of the *UNE Transport Forbearance Order* and the *UNE Analog Loop and Avoided-*

Cost Resale Order? If so, should we tie this shorter transition period to only some relief or all relief granted? What are the administrative benefits of syncing the transitions? Are such benefits outweighed by what would be a shorter transition for those UNE and Avoided-Cost Resale obligations that we seek comment on today?

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

II. INITIAL REGULATORY FLEXIBILITY ANALYSIS

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

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

82. In the NPRM, we propose to modernize our unbundling and related rules for local

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

B. Legal Basis

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

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

84. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules and by the rule revisions on which the NPRM seeks comment, if adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small-business concern" under the Small Business Act. 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 SBA.

1. Total Small Entities

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

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

87. Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand." U.S. Census Bureau data from the 2012 Census of Governments indicates that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States. Of this number there were 37,132 general purpose governments (county, municipal and town or township) with populations of less than 50,000 and 12,184 special purpose governments (independent school districts and special districts) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local

government category shows that the majority of these governments have populations of less than 50,000. Based on these data we estimate that at least 49,316 local government jurisdictions fall in the category of “small governmental jurisdictions.”

2. Broadband Internet Access Service Providers

88. *Internet Service Providers (Broadband)*. Broadband Internet service providers include wired (e.g., cable, DSL) and VoIP service providers using their own operated wired telecommunications infrastructure fall in the category of Wired Telecommunication Carriers. Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies. The SBA size standard for this category classifies a business as small if it has 1,500 or fewer employees. U.S. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Consequently, under this size standard, the majority of firms in this industry can be considered small.

3. Wireline Providers

89. *Wired Telecommunications Carriers*. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a

variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” 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. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus, under this size standard, the majority of firms in this industry can be considered small.

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

91. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers*.

Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate NAICS Code category is Wired Telecommunications Carriers, as defined above. Under that size standard, such a business is

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

92. 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.” The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope. 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.

93. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a definition for Interexchange Carriers. The closest NAICS Code category is Wired

Telecommunications Carriers as defined above. The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees. U.S. Census data for 2012 indicates that 3,117 firms operated during that year. Of that number, 3,083 operated with fewer than 1,000 employees. According to internally developed Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services. Of this total, an estimated 317 have 1,500 or fewer employees. Consequently, the Commission estimates that the majority of IXC's are small entities that may be affected by our proposed rules.

94. *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. Under that size standard, such a business is small if it has 1,500 or fewer employees. 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. Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities.

95. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a definition for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The

closest applicable NAICS Code category is for Wired Telecommunications Carriers as defined above. Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus, under this category and the associated small business size standard, the majority of Other Toll Carriers can be considered small. According to internally developed Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage. Of these, an estimated 279 have 1,500 or fewer employees. Consequently, the Commission estimates that most Other Toll Carriers are small entities that may be affected by rules adopted pursuant to the *Second Further Notice*.

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

4. Wireless Providers – Fixed and Mobile

97. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging

services, wireless internet access, and wireless video services. The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees. For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more. Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

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

99. *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. The SBA has approved these definitions.

100. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite). Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees. For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for

the entire year. Of this total, 955 firms had fewer than 1,000 employees and 12 firms had 1000 employees or more. Thus under this category and the associated size standard, the Commission estimates that a majority of these entities can be considered small. According to Commission data, 413 carriers reported that they were engaged in wireless telephony. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Therefore, more than half of these entities can be considered small.

101. *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. 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. 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. Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

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

102. The NPRM propose changes to, and seeks comment on, the Commission’s

unbundling and related rules for local loops and dark fiber transport, as well as other types of network elements. The objective of the proposed modifications is to encourage the deployment of next-generation networks and unburden incumbent LECs where there is substantial evidence of facilities-based competition and market entry. Beyond the benefits that providers will enjoy from a decreased regulatory burden on their day-to-day operations, these changes would not affect the reporting, recordkeeping, and other compliance requirements of carriers, some of which are small entities.

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

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

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

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

105. None.

III. PROCEDURAL MATTERS

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

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

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

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

IV. ORDERING CLAUSES

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

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

List of Subjects in 47 CFR Part 51

Communications common carriers, Telecommunications.

FEDERAL COMMUNICATIONS COMMISSION

Marlene Dortch,
Secretary.

Proposed Rule

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 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 through 155, 201 through 205, 207 through 209, 218, 225 through 227, 251 through 252, 271, 332 unless otherwise noted.

2. Amend § 51.319 by:

- a. Revising paragraph (a)(1);
- b. Removing paragraph (a)(3)(iii)(C); and
- c. Revising paragraphs (a)(4)(i), (a)(5)(i), (b), and (d)(2)(iv).

The revisions read as follows:

§ 51.319 Specific unbundling requirements.

(a) * * *

(1) *Copper loops.* An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to the copper loop in census blocks defined as rural by the Census Bureau on an unbundled basis. A copper loop is a stand-alone local loop comprised entirely of copper wire or cable. Copper loops include two-wire and four-wire analog voice-grade copper loops, digital copper loops (*e.g.*, 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.

* * * * *

(4) *** (i) Subject to the cap described in paragraph (a)(4)(ii) of this section, an incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to a DS1 loop on an unbundled basis to any building not served by a wire center with at least 60,000 business lines and at least four fiber-based collocators. Once a wire center exceeds both the business line and fiber-based collocator thresholds, no future DS1 loop unbundling will be required in that wire center. In addition, a DS1 loop only is available to a building located in one or more of the following: (A) any county or portion of a county served by a price cap incumbent LEC that is not included on the list of counties that have been deemed competitive pursuant to the competitive market test established under 49 CFR 69.803; (B) any study area served by a rate-of-return incumbent LEC provided that study area is not included on the list of competitive study areas pursuant to the competitive market test established under 47 CFR 61.50; or (C) any census block defined as rural by the Census Bureau if being requested solely to serve residential customers. A DS1 loop is a digital local loop having a total digital signal speed of 1.544 megabytes per second. DS1 loops include, but are not limited to, two-wire and four-wire copper loops capable of providing high-bit rate digital subscriber line services, including T1 services.

* * * * *

(5) *DS3 loops.* (i) Subject to the cap described in paragraph (a)(5)(ii) of this section, an

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

* * * * *

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

* * * * *

(d) * * *

(2) ***

(iv) *Dark fiber transport.* Dark fiber transport consists of unactivated optical interoffice transmission facilities. Incumbent LECs shall unbundle dark fiber transport between any

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

* * * * *

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