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

In the Matter of	)	
	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338

ORDER ON REMAND

Adopted: December 15, 2004 **Released: February 4, 2005**

By the Commission: Chairman Powell and Commissioner Abernathy issuing separate statements; Commissioner Martin issuing a separate statement at a later date; Commissioners Copps and Adelstein dissenting and issuing separate statements.

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I. INTRODUCTION

1. One of the major goals of Congress in enacting the Telecommunications Act of 1996 (1996 Act) was to open local telecommunications service markets to competition.[1] To that end, Congress imposed certain interconnection, resale, and network access requirements on incumbent local exchange carriers (LECs) through section 251 of the 1996 Act. Here, we focus on the market-opening provisions of section 251(c)(3), which require that incumbent LECs make elements of their networks available on an unbundled basis to new entrants at cost-based rates, pursuant to standards set out in section 251(d)(2).

2. In our *Triennial Review Order*, we recognized the marketplace realities of robust broadband competition and increasing competition from intermodal sources, and thus eliminated most unbundling

[1] The 1996 Act amended the Communications Act of 1934, 47 U.S.C. § 151 *et seq.* We refer to these Acts collectively as the "Communications Act" or the "Act."

requirements for broadband architectures serving the mass market.[2] Our efforts there made it easier for companies to invest in equipment and deploy the high-speed services that consumers desire. The *Triennial Review Order* had the effect of limiting unbundled access to next-generation loops serving the mass market. In this Order, the Commission takes additional steps to encourage the innovation and investment that come from facilities-based competition.[3] By using our section 251 unbundling authority in a more targeted manner, this Order imposes unbundling obligations only in those situations where we find that carriers genuinely are impaired without access to particular network elements and where unbundling does not frustrate sustainable, facilities-based competition. This approach satisfies the guidance of courts to weigh the costs of unbundling, and ensures that our rules provide the right incentives for both incumbent and competitive LECs to invest rationally in the telecommunications market in the way that best allows for innovation and sustainable competition.[4]

3. This Order imposes unbundling obligations in a more targeted manner where requesting carriers have undertaken their own facilities-based investments and will be using UNEs in conjunction with self-provisioned facilities. By adopting this approach, we spread the benefits of facilities-based competition to all consumers, particularly small- and medium-sized enterprise customers. We believe that the impairment framework we adopt is self-effectuating, forward-looking, and consistent with technology trends that are reshaping the industry. As we recognize below, the long distance and wireless markets are sufficiently competitive for the Commission to decline to unbundle network elements to serve those markets. Our unbundling rules are designed to remove unbundling obligations over time as carriers

[2] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17145, para. 278 (2003) (*Triennial Review Order*), *corrected by* Errata, 18 FCC Rcd 19020 (2003) (*Triennial Review Order Errata*), *vacated and remanded in part, affirmed in part, United States Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) (*USTA II*) *cert. denied*, 125 S.Ct. 313, 316, 345 (2004).

[3] *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, 3701, para. 7 (1999) (*UNE Remand Order*); *see also Triennial Review Order*, 18 FCC Rcd at 16984, para. 3 (discussing "the difficulties and limitations inherent in competition based on the shared use of infrastructure").

[4] In this Order on Remand, the Commission puts into place new rules applicable to incumbent LECs' unbundling obligations with regard to mass market local circuit switching, high-capacity loops, and dedicated interoffice transport. These new rules moot various petitions that asked the Commission to stay the application of certain rules adopted in the *Triennial Review Order*. Accordingly, we dismiss as moot the August 27, 2003, emergency joint petition for stay filed by the CHOICE Coalition; the September 4, 2003, joint petition for stay filed by BellSouth, Qwest, SBC, Verizon, and the United States Telecom Association; the September 22, 2003, emergency petition for stay filed by Sage Telecom; the emergency stay petition filed by DCSI Corporation *et al.* on September 22, 2003; the September 25, 2003, emergency petition for stay filed by NuVox; and the September 26, 2003, petition for emergency stay filed by Allegiance Telecom, Cbeyond, El Paso Global Networks, Focal, McLeodUSA, Mpower, and TDS Metrocom. *See* Coalition for High-Speed Online Internet Competition and Enterprise Emergency Joint Petition for Stay, CC Docket Nos. 01-338, 96-98, 98-147 (filed Aug. 27, 2003); BellSouth Corporation, Qwest Communications International Inc., SBC Communications Inc., the United States Telecom Association, and the Verizon Telephone companies, Joint Petition for Stay, CC Docket Nos. 01-338, 96-98, 98-147 (filed Sept. 4, 2003); Sage Telecom, Inc. Emergency Petition for Stay, CC Docket Nos. 01-338, 96-98, 98-147 (filed Sept. 22, 2003); DCSI Corporation, Emergency Stay Petition, CC Docket Nos. 01-338, 96-98, 98-147 (filed Sept. 22, 2003); NuVox Communications, Inc. Emergency Petition for Stay, CC Docket Nos. 01-338, 96-98, 98-147 (filed Sept. 25, 2003); Allegiance Telecom, Inc., Cbeyond Communications, LLC, El Paso Global Networks, Focal Communications Corporation, McLeodUSA Telecommunications Services, Inc., Mpower Communications Corp. and TDS Metrocom, LLC Petition for Emergency Stay, CC Docket Nos. 01-338, 96-98, 98-147 (filed Sept. 26, 2003).

deploy their own networks and downstream local exchange markets exhibit the same robust competition that characterizes the long distance and wireless markets.

4. The approach that we take here was helped immensely by the efforts of our state colleagues to develop evidence concerning the state of development of facilities-based competition in their respective states. The state commissions' impressive efforts to carry out the tasks set out for them in our *Triennial Review Order* led to the development of significant evidence of competitive deployment that we used to guide our impairment analysis. The evidence filed with us from those state proceedings provided more detailed evidence of competitive deployment than we have had before us in many past proceedings, and enabled us to draw reasonable inferences from such facilities deployment, as instructed by the D.C. Circuit, in developing the unbundling rules we adopt today. Likewise, the efforts of state commissions, as well as incumbent and competitive LECs, in seeking to develop batch hot cut processes in response to the *Triennial Review Order* have had pro-competitive results relevant to our present analysis.

II. EXECUTIVE SUMMARY

5. The executive summary of this Order is as follows:

- **Unbundling Framework.** We clarify the impairment standard adopted in the *Triennial Review Order* in one respect and modify our application of the unbundling framework in three respects. *First*, we clarify that we evaluate impairment with regard to the capabilities of a *reasonably efficient* competitor. *Second*, we set aside the *Triennial Review Order*'s "qualifying service" interpretation of section 251(d)(2), but prohibit the use of UNEs exclusively for the provision of telecommunications services in the mobile wireless and long distance markets, which we previously have found to be competitive. *Third*, in applying our impairment test, we draw reasonable inferences regarding the prospects for competition in one geographic market based on the state of competition in other, similar markets. *Fourth*, we consider the appropriate role of tariffed incumbent LEC services in our unbundling framework, and determine that in the context of the local exchange markets, a general rule prohibiting access to UNEs whenever a requesting carrier is able to compete using an incumbent LEC's tariffed offering would be inappropriate.

- **Dedicated Interoffice Transport.** Competing carriers are impaired without access to DS1 transport except on routes connecting a pair of wire centers, where both wire centers contain at least four fiber-based collocators or at least 38,000 business access lines. Competing carriers are impaired without access to DS3 or dark fiber transport except on routes connecting a pair of wire centers, each of which contains at least three fiber-based collocators or at least 24,000 business lines. Finally, competing carriers are not impaired without access to entrance facilities connecting an incumbent LEC's network with a competitive LEC's network in any instance. We adopt a 12-month plan for competing carriers to transition away from use of DS1- and DS3-capacity dedicated transport where they are not impaired, and an 18-month plan to govern transitions away from dark fiber transport. These transition plans apply only to the embedded customer base, and do not permit competitive LECs to add new dedicated transport UNEs in the absence of impairment. During the transition periods, competitive carriers will retain access to unbundled dedicated transport at a rate equal to the higher of (1) 115 percent of the rate the requesting carrier paid for the transport element on June 15, 2004, or (2) 115 percent of the rate the state commission has established or establishes, if any, between June 16, 2004 and the effective date of this Order.

- **High-Capacity Loops.** Competitive LECs are impaired without access to DS3-capacity loops except in any building within the service area of a wire center containing 38,000 or more

business lines and 4 or more fiber-based collocators. Competitive LECs are impaired without access to DS1-capacity loops except in any building within the service area of a wire center containing 60,000 or more business lines and 4 or more fiber-based collocators. Competitive LECs are not impaired without access to dark fiber loops in any instance. We adopt a 12-month plan for competing carriers to transition away from use of DS1- and DS3-capacity loops where they are not impaired, and an 18-month plan to govern transitions away from dark fiber loops. These transition plans apply only to the embedded customer base, and do not permit competitive LECs to add new high-capacity loop UNEs in the absence of impairment. During the transition periods, competitive carriers will retain access to unbundled facilities at a rate equal to the higher of (1) 115 percent of the rate the requesting carrier paid for the unbundled loops on June 15, 2004, or (2) 115 percent of the rate the state commission has established or establishes, if any, between June 16, 2004 and the effective date of this Order.

- **Mass Market Local Circuit Switching.** Incumbent LECs have no obligation to provide competitive LECs with unbundled access to mass market local circuit switching. We adopt a 12-month plan for competing carriers to transition away from use of unbundled mass market local circuit switching. This transition plan applies only to the embedded customer base, and does not permit competitive LECs to add new switching UNEs. During the transition period, competitive carriers will retain access to the UNE platform (*i.e.*, the combination of an unbundled loop, unbundled local circuit switching, and shared transport) at a rate equal to the higher of (1) the rate at which the requesting carrier leased that combination of elements on June 15, 2004, plus one dollar, or (2) the rate the state public utility commission establishes, if any, between June 16, 2004, and the effective date of this Order, for this combination of elements, plus one dollar.

III. BACKGROUND

6. The Communications Act requires that incumbent LECs provide unbundled network elements (UNEs) to other telecommunications carriers. In particular, section 251(c)(3) requires incumbent LECs to provide requesting telecommunications carriers with "nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with . . . the requirements of this section and section 252."[1] Section 251(d)(2) authorizes the Commission to determine which elements are subject to unbundling, and directs the Commission to consider, "at a minimum," whether access to proprietary network elements is "necessary," and whether failure to provide a non-proprietary element on an unbundled basis would "impair" a requesting carrier's ability to provide service.[2] Section 252, in turn, requires that those network elements that must be offered pursuant to section 251(c)(3) be made available at cost-based rates.[3] The Commission has previously summarized the long and complex history of our

[1] 47 U.S.C. § 251(c)(3).

[2] *See id*. § 251(d)(2).

[3] *See id.* § 252(d)(1). In the *Local Competition Order*, the Commission established the pricing methodology that state commissions must use to determine what are permissible cost-based rates incumbent LECs may charge for UNEs. *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket Nos. 96-98, 95-185, First Report and Order, 11 FCC Rcd 15499, 15846-50, paras. 679-89 (1996) (*Local Competition Order*) (subsequent history omitted) (establishing the TELRIC methodology and asking the states to perform the necessary analysis under this methodology). The Supreme Court upheld this allocation of federal and state jurisdiction, *see AT&T Corp. v. Iowa Util. Bd.*, 525 U.S. 366, 377-86 (1999), and upheld the TELRIC pricing methodology, *see Verizon Communications v. FCC*, 535 U.S. 467 (2002). The Commission has initiated a separate proceeding in which it is comprehensively reviewing TELRIC. *Review of the Commission's Rules*

unbundling regime since the 1996 Act's passage, in our *Triennial Review Order*.[4] Here, we offer only a brief review of this history, focusing on recent developments that have not been treated exhaustively in other contexts.

7. *1996 Act to USTA I*. The Commission first addressed the unbundling obligations of incumbent LECs in the *Local Competition Order*, which, among other things, adopted rules designed to implement the requirements of section 251 and established a list of seven UNEs that incumbent LECs were obligated to provide.[5] In 1997, the U.S. Court of Appeals for the Eighth Circuit affirmed some parts of the *Local Competition Order* and reversed others.[6] The Commission, MCI, AT&T, and various incumbent LECs appealed different portions of the Eighth Circuit decision. In January 1999, the Supreme Court (1) affirmed the Commission's general authority to adopt unbundling rules to implement the 1996 Act; (2) vacated the specific unbundling rules at issue; (3) instructed the Commission to revise the standards under which the unbundling obligation is determined; and (4) required the Commission to reevaluate which network elements should be subject to unbundling under the revised standard.[7]

8. In November 1999, the Commission responded to the Supreme Court's remand by issuing the *UNE Remand Order*, in which it reevaluated the unbundling obligations of incumbent LECs and promulgated new unbundling rules, pursuant to the Court's direction.[8] The United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) granted petitions for review, and, in *USTA I*, it vacated and remanded those portions of the *UNE Remand Order* interpreting the statute's "impair" standard and establishing a nationwide list of mandatory UNEs.[9] In support of its decision, the D.C. Circuit held that the Commission's impairment analysis was insufficiently "granular" because its analysis did not account for differences in particular markets and particular customer classes.[10] The court also ruled that the Commission, when analyzing impairment, had failed adequately to weigh the costs of unbundling and to examine whether the costs faced by competitive providers were due to natural

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Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers, WC Docket No. 03-173, Notice of Proposed Rulemaking, 18 FCC Rcd 18945 (2003) (*TELRIC NPRM*).

[4] *See Triennial Review Order*, 18 FCC Rcd 16992-17007, paras. 8-34; *see also Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338, WC Docket No. 04-313, Order and Notice of Proposed Rulemaking, 19 FCC Rcd 16783, 16785-87, paras. 3-7 (2004) (*Interim Order and NPRM*).

[5] The seven network elements set forth in the *Local Competition Order* were: (1) local loops; (2) network interface devices; (3) local and tandem switching; (4) interoffice transmission facilities; (5) signaling networks and call-related databases; (6) operations support systems; and (7) operator services and directory assistance. *Local Competition Order*, 11 FCC Rcd at 15616-775.

[6] *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997).

[7] *AT&T Corp. v. Iowa Utils. Bd*., 525 U.S. 366 (1999). In reaching this conclusion, the Court held that the Commission had not adequately considered the "necessary" and "impair" standards of section 251(d)(2) in establishing the list of seven network elements. *Id*. at 387-92 (holding that the Commission erred in deciding that any increased cost to a requesting carrier, or decrease in its service quality, due to lack of access to a UNE established entitlement to that UNE, and that the Commission failed to consider the availability of elements outside the network under its necessary and impair standards).

[8] *UNE Remand Order*, 15 FCC Rcd 3696.

[9] *United States Telecom Ass'n v. FCC*, 290 F.3d 415 (D.C. Cir. 2002) (*USTA I*).

[10] *Id*. at 422.

monopoly characteristics or to the difficulties facing new entrants in all industries.[11] The court also vacated and remanded the Commission's line sharing requirements because the Commission had not considered the impact of intermodal competition before requiring unbundling.[12]

9. In December 2001, prior to the D.C. Circuit's issuance of *USTA I*, the Commission released the *Triennial Review NPRM*, seeking comment on how, if at all, the unbundling regime should be modified to reflect market developments since the issuance of the *UNE Remand Order*.[13] The *Triennial Review NPRM* sought comment on almost all aspects of the unbundling regime, including the "necessary" and "impair" standards, the "at a minimum" language of section 251(d)(2), whether and how the Commission's previously identified UNEs should be unbundled, and whether the Commission should conduct a more granular impairment analysis.[14] The Commission asked particular questions about crafting unbundling rules that would foster facilities investment by both incumbent LECs and new entrants, in particular investment in facilities needed to provide broadband services.[15] Following *USTA I*, the Commission issued a Public Notice asking commenters responding to the *Triennial Review NPRM* to address the issues raised in the *USTA I* decision.[16]

10. *Triennial Review Order*. In August 2003, the Commission released the *Triennial Review Order*, in which it reinterpreted the "impair" standard of section 251(d)(2) and revised the list of UNEs that incumbent LECs must provide to requesting carriers.[17] Under its reinterpretation of section 251(d)(2), the Commission held that a requesting carrier is impaired "when lack of access to an incumbent LEC network element poses a barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market uneconomic."[18] The Commission's impairment analysis set forth in

[11] The D.C. Circuit in *USTA I* stressed that new entrants in any industry face higher costs than incumbent LECs and that the Commission had not sufficiently linked impairment "to cost differentials based on characteristics that would make genuinely competitive provision of an element's function wasteful," such as is the case in a natural monopoly. *Id*. at 427. As the court noted in *USTA II*, "the statutory structure [of the Act] suggests that 'impair' must reach a bit beyond natural monopoly." *USTA II*, 359 F.3d at 572.

[12] *USTA I*, 290 F.3d at 428-30; *see also USTA II*, 359 F.3d at 572-73 (reaffirming that the Commission may not ignore intermodal alternatives).

[13] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Notice of Proposed Rulemaking, 16 FCC Rcd 22781 (2001) (*Triennial Review NPRM*).

[14] *Id*. at 22790, 22791, 22803-13, 22797-802, paras. 18, 21, 47-70, 34-44.

[15] *Id.* at 22793-96, paras. 24-30.

[16] *See Wireline Competition Bureau Extends Reply Comment Deadline for the Triennial Review Proceedings*, CC Docket No. 01-338, Public Notice, 17 FCC Rcd 10512 (WCB 2002). In 2002, after the Commission released the *Triennial Review NPRM*, the Supreme Court issued the *Verizon* decision mentioned above, which upheld the Commission's UNE pricing methodology. *See supra* note Error: Reference source not found. The Court also upheld the Commission's rules requiring that incumbent LECs combine UNEs in certain circumstances even if they are not combined in the incumbent's network. The Court stated that these rules "reflect a reasonable reading of the statute, meant to remove practical barriers to competitive entry into local-exchange markets while avoiding serious interference with incumbent network operations." *Verizon Communications v. FCC*, 535 U.S. 467, 535 (2002).

[17] The *Triennial Review Order* summarizes those network elements that incumbent LECs must provide to requesting carriers. *Triennial Review Order*, 18 FCC Rcd at 16988-91.

[18] *Id*. at 17035, para. 84.

the *Triennial Review Order* accounts for intermodal alternatives,[19] self-provisioning of network elements, and the potential ability of a requesting carrier to obtain similar facilities from a third party.[20] In an attempt to help ensure that incumbent LEC and competitive LEC cost disparities are linked to natural monopoly characteristics, as required by *USTA I*, the Commission, in the *Triennial Review Order*, limited the types of operational and economic barriers that are relevant to its impairment analysis. The relevant structural barriers the Commission discussed were: (1) economies of scale; (2) sunk costs; (3) first-mover advantages; (4) absolute cost advantages; and (5) barriers within the control of the incumbent.[21]

11. To develop a nuanced approach to unbundling, the Commission took into consideration factors that might impact impairment, such as customer class, geography, the nature of the service provided, and the types and capacities of the facilities involved in a requesting carrier's service offering. The Commission's aim was to bring competition to markets faster than it might develop in the absence of the market-opening requirements of the 1996 Act, while also taking into account the extent to which unbundling requirements might undermine the incentives of both incumbent LECs and new entrants to invest in new facilities and deploy new technology.[22] Based on these and other considerations, the Commission adopted a set of tests and triggers designed to implement and enforce the Act's market-opening requirements. For switching, high-capacity loops, and dedicated transport, the Commission asked the states to apply the Commission's triggers as a way of determining actual deployment and to conduct a potential deployment analysis under the Commission's network unbundling rules.[23]

12. *USTA II*. Various parties appealed the *Triennial Review Order*, and, on March 2, 2004, the D.C. Circuit decided *USTA II*.[24] *USTA II* upheld the *Triennial Review Order* in part, but remanded and vacated several components of it. The D.C. Circuit expressly upheld the Commission's network modification requirements; its determinations regarding section 271 access, pricing, and combination obligations; its EEL eligibility criteria; its determination, with certain exceptions, not to require

[19] *See, e.g.*, *id*. at 17044-45, paras. 97-98.

[20] *See, e.g.*, *id.* at 17035, para. 84.

[21] *Id*. at 17037-41, paras. 87-91.

[22] To achieve these objectives, the Commission in part relied on its authority pursuant to the "at a minimum" language in section 251(d)(2) to consider factors other than impairment when evaluating unbundling obligations for non-proprietary network elements. Section 251(d)(2) provides that "[i]n determining what network elements should be made available for purposes of subsection (c)(3), the Commission shall consider, *at a minimum*, whether . . . (B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer." 47 U.S.C. § 251(d)(2) (emphasis added). Specifically, citing section 706 of the Act, the Commission declined to order unbundling of packet switching, and imposed only limited unbundling obligations on incumbent LECs' fiber-to-the-home loops and hybrid loops, despite the possibility of some level of impairment. *See Triennial Review Order*, 18 FCC Rcd at 17145, 17152, 17323, paras. 278, 293, 541. Section 706 directs the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans" by using regulatory measures that "promote competition in the local telecommunications market" and "remove barriers to infrastructure investment." 47 U.S.C. § 157 nt.

[23] *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17095-98, paras. 186-90 (state delegation generally); 17227, para. 400 (adopting transport triggers for states to apply); *id*. at 17232, para. 410 (directing states to consider certain economic characteristics to determine whether potential competition exists along a particular route); 47 C.F.R. § 51.319(d) (interoffice transport unbundling rules).

[24] *USTA II*, 359 F.3d at 564-76.

unbundling of FTTH loops,[25] broadband hybrid loops,[26] enterprise switching, and most incumbent LEC databases; and its decision not to unbundle the high frequency portion of the loop (HFPL).[27] The court also took a favorable view of certain aspects of the Commission's impairment standard. For instance, regarding the Commission's structural analysis of possible barriers to market entry, the D.C. Circuit stated that, for the most part, the Commission's impairment test now "explicitly and plausibly connects factors to consider in the impairment inquiry to the natural monopoly characteristics . . . [or] to other structural impediments to competitive supply."[28] The *USTA II* court also broadly upheld the Commission's authority to take costs into account in its unbundling analysis either in the impairment standard itself or in a separate analysis conducted pursuant to the "at a minimum" language of section 251(d)(2).[29]

13. The *USTA II* court vacated the Commission's "subdelegation" of authority to state commissions to engage in further granular impairment analyses[30] and vacated and remanded the nationwide impairment findings for mass market switching and dedicated transport.[31] The D.C. Circuit also remanded, but did not vacate, the Commission's distinction between "qualifying" and "non-qualifying" services,[32] and the exclusion of entrance facilities from an impairment analysis.[33] While the text of the court's decision did not explicitly reach our enterprise market loop unbundling rules, in order to account for changes we are adopting today to our unbundling framework and to remove any uncertainty regarding these rules, we take this opportunity to reevaluate our enterprise market loop unbundling rules.[34] The court's discussion also called into question other aspects of the Commission's unbundling framework.[35]

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[25] In the *Triennial Review Order*, the Commission required unbundling of the narrowband portion of fiber loop in overbuild situations where the incumbent LEC elects to retire existing copper loops. *Triennial Review Order*, 18 FCC Rcd at 17142, para. 273.

[26] Under the Commission's rules, incumbent LECs must continue to provide unbundled access to the TDM features, functions, and capabilities of their hybrid loops, or to provide a homerun copper loop alternative. *Id.* at 17154, para. 296.

[27] *USTA II*, 359 F.3d at 578 (network modification requirements), 589-90 (section 271 obligations), 592-93 (EEL eligibility criteria), 583-84 (FTTH loops), 582 (hybrid loops), 587 (enterprise switching), 587 (incumbent LEC databases), 585 (line sharing).

[28] *Id*. at 571-72.

[29] *See id*. at 572 (holding that "there is no statutory offense in the Commission's decision to adopt a standard that treats impairment as a continuous rather than as a dichotomous variable, and potentially reaches beyond natural monopoly, but then to examine the full context before ordering unbundling").

[30] *Id*. at 565-68, 573-74, 594.

[31] The court noted "the inevitability of *some* over- and under-inclusiveness in the Commission's unbundling rules" but maintained that the Commission nevertheless may not "proceed by very broad national categories where there is evidence that markets vary decisively (by reference to its impairment criteria), at least not without exploring the possibility of more nuanced alternatives and reasonably rejecting them." *Id*. at 568-71, 574-75, 594.

[32] *Id*. at 591-92, 594.

[33] *Id*. at 585-86, 594.

[34] Accordingly, we need not reach and do not decide the question whether the D.C. Circuit vacated these rules. *See Interim Order and NPRM*, 19 FCC Rcd at 16783, para. 1 n.4 (assuming *arguendo* that the D.C. Circuit vacated the Commission's enterprise market loop unbundling rules in light of arguments by some carriers that the court vacated those rules in the absence of any formal pronouncement by the court regarding the status of the Commission's findings regarding enterprise market loops).

14. First, the court held that the Commission had not adequately explained what level of efficiency it ascribes to requesting carriers when analyzing whether that carrier's lack of access to an incumbent LEC network element is likely to make entry into a market uneconomic. As the court described its concern, the Commission's "touchstone" of impairment – uneconomic entry – was excessively vague because it did not answer the question: "Uneconomic by whom?"[36]

15. Second, the court rejected the Commission's interpretation of section 251(d)(2), which directs the Commission to determine whether impairment exists for a "telecommunications carrier seeking access [to UNEs] to provide the services it seeks to offer."[37] The Commission interpreted "services" in this provision as being those services a requesting carrier seeks to provide "in direct competition with the incumbent LECs' core services" (*e.g.*, local exchange telephone service).[38] Although the court rejected the Commission's statutory interpretation, and thus by implication rejected the Commission's "qualifying services" test, it nevertheless observed that competitive carriers probably should not be entitled to rely on UNEs exclusively to provide service in competitive downstream markets such as the commercial mobile wireless service market and the long distance service market.[39]

16. Third, the court held that the Commission did not properly make inferences relating to the possibility of competitive deployment of facilities in one market from evidence of actual deployment of facilities in similar geographic markets.[40] In *USTA I*, the court had suggested that competitive carriers are not impaired in a particular market, despite not having alternatives to the incumbent LEC's facilities, if, in similarly situated markets, competitive carriers had been able to construct their own facilities.[41]

17. Fourth, the court directed the Commission to reconsider whether an incumbent LEC's tariffed special access services should be relevant to the impairment inquiry and rejected certain arguments the Commission made to the contrary.[42] The court noted that carriers in certain robustly competitive downstream markets use special access services instead of UNEs as inputs for their service offerings.

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[35] In addition to the issues discussed in the text above, the court raised questions regarding how the Commission's impairment analysis should take account of state universal service cross-subsidies, and found that the Commission had not adequately examined the implications of requiring unbundling where cross-subsidies of this type are present. *USTA II*, 359 F.3d at 573. The court also stated that the Commission had not connected how regulated "below-cost" retail rates, to the extent they form an impairment barrier, are linked either to structural features that would make competitive supply wasteful or to other goals of the Act. *Id*.

[36] *Id.* at 572 ("Uneconomic by whom? By *any* CLEC, no matter how inefficient? By an 'average' or 'representative' CLEC? By the most efficient existing CLEC? By a hypothetical CLEC that used 'the most efficient telecommunications technology currently available,' the standard that is built into TELRIC?").

[37] 47 U.S.C. § 251(d)(2) (emphasis added).

[38] *See Triennial Review Order*, 18 FCC Rcd at 17070, paras. 139-40. The Commission called those services offered in direct competition with the incumbent LECs' core services "qualifying services" – in the sense they would qualify the competitive carrier for access to UNEs – while it designated the remainder of services offered by the carrier "non-qualifying services." *Id*.

[39] *USTA II*, 359 F.3d at 576, 592.

[40] *USTA II*, 359 F.3d at 575.

[41] *See USTA I*, 290 F.3d at 422 (doubting whether impairment could exist in markets "where the element in question – though not literally ubiquitous – is significantly deployed on a competitive basis," citing interoffice dedicated transport as a specific example).

[42] *USTA II*, 359 F.3d at 576-77.

From this observation, the court inferred that the presence of special access alternatives is not irrelevant to impairment. While the court rejected the Commission's arguments for dismissing special access services as a substitute for UNEs, it noted that the "Commission [is] free to take into account such factors as administrability, risk of ILEC abuse, and the like."[43] The court also endorsed and underscored the importance of considering facilities-based competition when evaluating impairment.[44]

18. *Interim Order and NPRM*. Because the *USTA II* decision vacated and remanded significant portions of the Commission's unbundling rules, the Commission took several steps to avoid excessive disruption of the local telecommunications market while it wrote new rules.[45] Among these steps was the release, on August 20, 2004, of the *Interim Order and NPRM*.[46] In the *Interim Order and NPRM*, the Commission required carriers, for a limited period of time, to adhere to the commitments they made in

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[43] *Id*. at 577.

[44] *See id*. at 576 (stating that the purpose of the Act is to "stimulate competition – preferably genuine, facilities-based competition"); *id*. at 579 ("Section 706(a) identifies one of the Act's goals beyond fostering competition piggy-backed on ILEC facilities, namely, removing barriers to infrastructure investment."); *id*. at 573 (suggesting that the Commission through its unbundling rules had been seeking, in part, to foster "synthetic" competition); *see also*, *e.g.*, *USTA I*, 290 F.3d at 424 (same).

[45] In addition to the actions discussed in the *Interim Order and NPRM*, the Commission has continued to refine its unbundling rules in other ways. On July 13, 2004, the Commission released an order that replaced the so-called "pick-and-choose rule" with a new "all-or-nothing rule" designed to facilitate commercial agreements between incumbent LECs and competitive LECs. *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338, Second Report and Order, 19 FCC Rcd 13494 (2004). The Commission also granted, in part, petitions seeking reconsideration of the *Triennial Review Order* filed by BellSouth and SureWest. On August 9, 2004, the Commission held that fiber loops deployed at least to the minimum point of entry (MPOE) of multiple dwelling units (MDUs) that are predominantly residential should be treated as fiber-to-the-home loops (FTTH) for unbundling purposes, irrespective of the ownership of the inside wiring. *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Order on Reconsideration , 19 FCC Rcd 15856 (2004) (*MDU Reconsideration Order*). On October 18, 2004, the Commission determined that FTTC deployments should be treated in the same manner as FTTH deployments for unbundling purposes so long as the fiber deployment is not farther than 500 feet from each customer premises reached from the serving area interface. *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Order on Reconsideration , 19 FCC Rcd 20293 (2004) (*FTTC Reconsideration Order*). The *FTTC Reconsideration Order* clarified that incumbent LECs are not required to build TDM capability into new packet-based networks or into existing packet-based networks that never had TDM capability. *See id*. at paras. 20-21. And on October 27, 2004, the Commission released an order granting the four Bell Operating Companies forbearance relief from the requirements of section 271 with regard to broadband elements to the same extent that unbundling relief was granted under section 251. *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c); SBC Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c); Qwest Communications International Inc. Petition for Forbearance Under 47 U.S.C. § 160(c); BellSouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c)*, WC Docket Nos. 01-338, 03-235, 03-260, 04-48, Memorandum Opinion and Order, 19 FCC Rcd 21496 (2004) (*Broadband 271 Forbearance Order*).

[46] *See Interim Order and NPRM*, 19 FCC Rcd 16783. Because this Order modifies our unbundling framework and adopts new rules applicable to unbundled local switching, we dismiss as moot the petition for reconsideration filed on October 2, 2003, by NASUCA, which asked the Commission to reconsider various aspects of the impairment standard and unbundled local switching rules adopted in the *Triennial Review Order*. *See* National

their interconnection agreements, applicable statements of generally available terms (SGATs) and relevant state tariffs that were in effect on June 15, 2004.[47] The Commission also set forth and sought comment on a transition plan under which, for the subsequent six months, if no final unbundling rules had been issued, the same commitments to provide network elements would apply to existing customers, but not new customers, at modestly higher rates than those available on June 15, 2004.[48] Several parties challenged the Commission's interim requirements before the D.C. Circuit. The court is holding that challenge in abeyance and ordered the parties to provide status updates on January 4, 2005.[49]

19. In the *Interim Order and NPRM*, the Commission also sought comment on how to respond to the D.C. Circuit's *USTA II* decision.[50] Our decision today is based on comments filed in response to this NPRM and focuses on those issues that were remanded to us.[51]

IV. UNBUNDLING FRAMEWORK

20. As described above, the *USTA II* court upheld the general impairment framework we established in the *Triennial Review Order*, but sought several clarifications and, in several cases, criticized the manner in which the Commission applied that framework to particular elements. In this section, we

Association of State Utility Consumer Advocates Petition for Reconsideration, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 2, 2003). Similarly, we dismiss as moot a petition for rulemaking filed by Qwest, because both this Order and the *Interim Order and NPRM* address the proposed set of interim rules set forth in Qwest's petition. *See* Qwest Communications International, Inc. Petition for Rulemaking, CC Docket No. 01-338 (filed March 29, 2004).

[47] *See Interim Order and NPRM*, 19 FCC Rcd at 16798, para. 29 (providing that such commitments must be honored until the earlier of the effective date of final unbundling rules promulgated by the Commission or six months after Federal Register publication of the *Interim Order and NPRM*, except to the extent that they are or have been superseded by (1) voluntarily negotiated agreements, (2) an intervening Commission order affecting specific unbundling obligations (*e.g.*, an order addressing a pending petition for reconsideration), or (3) with respect to rates only, a state public utility commission order raising the rates for network elements).

[48] *Id*. at 16799, para. 29. Because the interim requirements set out in the Commission's *Interim Order and NPRM* will expire upon the effective date of this Order, and because the transition plans set forth in this Order – not those proposed in the *Interim Order and NPRM* – will govern incumbent LECs' obligations following the effective date of this Order, we dismiss as moot the Association for Local Telecommunications Services *et al.*'s (ALTS) petition for emergency clarification and/or errata filed in CC Docket No. 01-338 and WC Docket No. 04-313. That petition asked us to clarify that (1) change of law proceedings implementing "no unbundling" determinations could not proceed until the expiration of the "interim period" described in the *Interim Order and NPRM*, and (2) that UNE rates for high-capacity loops, dedicated transport, and mass market switching during both the interim period and the proposed transition period could reflect state-ordered decreases as well as increases. *See* ALTS, Alpheus Communications, LP, Cbeyond Communications, LLC, Conversent Communications, LLC, GlobalCom, Inc., Mpower Communications Corp., New Edge Networks, Inc., OneEighty Communications, Inc. and TDS Metrocom, LLC Petition for Emergency Clarification and/or Errata, WC Docket No. 04-313, CC Docket No. 01-338 (filed Aug. 27, 2004).

[49] *USTA v. FCC*, D.C. Cir. No. 00-1012 (order issued Oct. 6, 2004).

[50] *See supra* note Error: Reference source not found.

[51] Comments in response to the *Interim Order and NPRM* were due by October 4, 2004, and reply comments were due by October 19, 2004. *Pleading Cycle Established for Comments Regarding Final Unbundling Rules*, CC Docket No. 01-338, WC Docket No. 04-313, Public Notice, 19 FCC Rcd 18077 (WCB 2004). The *Interim Order and NPRM* also incorporated the records of certain other pending proceedings. *Interim Order and NPRM*, 19 FCC Rcd at 16789-91, paras. 11-15. We address in this Order those issues remanded to us, as well as certain ancillary issues raised in the NPRM. We will address other outstanding issues in subsequent orders.

address those concerns that relate generally to the standard itself, to the extent that such concerns apply to more than one element. In the sections that follow, we revisit the unbundling obligations associated with several elements in a manner consistent with the *USTA II* decision and other controlling precedents.

21. In the *Triennial Review Order*, the Commission found that a requesting carrier is impaired "when lack of access to an incumbent LEC network element poses a barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market uneconomic."[1] The Commission also utilized its authority, under section 251(d)(2)'s "at a minimum" language, to give effect to factors other than impairment when making unbundling determinations. Specifically, the Commission relied on section 706 of the Act, which directs the Commission to encourage the deployment of advanced telecommunications capability to all Americans on a reasonable and timely basis, to consider investment incentives when weighing incumbent LECs' unbundling obligations with regard to facilities used to provide broadband service to mass market customers.[2]

22. In this Order, we retain the unbundling framework we adopted in the *Triennial Review Order*, but clarify the impairment standard in one respect and modify our unbundling framework in three respects.[3] *First*, we clarify that when evaluating whether lack of access to an incumbent LEC network element "poses a barrier or barriers to entry . . . that are likely to make entry into a market uneconomic," we make that determination with regard to a reasonably efficient competitor.[4] *Second*, in response to the *USTA II* court's directive, we modify our approach regarding carriers' unbundled access to incumbent LECs' network elements for provision of certain services, setting aside the *Triennial Review Order*'s "qualifying service" interpretation of section 251(d)(2), but nevertheless prohibiting the use of unbundled elements exclusively for the provision of telecommunications services in sufficiently competitive markets.[5] *Third*, to the extent that we evaluate whether requesting carriers can compete without unbundled access to particular network elements, we endeavor, as instructed by the D.C. Circuit, to draw reasonable inferences regarding the prospects for competition in one geographic market from the state of competition in other, similar markets.[6] *Fourth*, as directed by *USTA II*, we consider the appropriate role of tariffed incumbent LEC services in our unbundling framework.[7] We determine that in the context of the local exchange markets,[8] a rule prohibiting access to UNEs when a requesting carrier is able to compete using an incumbent's tariffed offering would be inappropriate.

23. We also take this opportunity to emphasize that neither the impairment inquiry nor the other aspects of the unbundling framework should be distorted to compensate for alleged failings in related but distinct areas of the Commission's regulatory regime. For example, competitors cite purportedly

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[1] *Triennial Review Order*, 18 FCC Rcd at 17035, para. 84.

[2] *See, e.g.*, *id*. at 17145, 17152, 17323, paras. 278, 293, 541; *see also* 47 U.S.C. § 157 nt.

[3] In several cases, our response to the *USTA II* holdings is more appropriately addressed in the context of specific elements than in a discussion of our overarching framework. Where that is true, we address the issues raised by the court in our discussion of specific network elements, below.

[4] *See Triennial Review Order*, 18 FCC Rcd at 17035, para. 84.

[5] *See USTA II*, 359 F.3d at 591-92.

[6] *See id*. at 575.

[7] *See id*. at 576-77.

[8] In this Order, we use the term "local exchange markets" to refer to the markets for the services provided by local exchange carriers, which include telephone exchange service and exchange access. 47 U.S.C. § 153(26).

excessive special access rates[9] and scarce collocation space[10] to justify continued unbundling, whereas incumbent LECs cite allegedly confiscatory UNE rates to support expansive relief.[11] We disagree with such arguments to the extent that they suggest that the Commission should depart from the statutory test for unbundling and require or limit unbundling as an alternative to correcting other perceived deficiencies in our rules. If rules other than those implementing section 251(d)(2) are impeding the development of competition – either by preventing competitive entry or by fostering excessive reliance on UNEs – parties should seek redress of the problematic rules themselves, rather than attempt to tilt the unbundling framework to account for the asserted deficiency.[12]

A. Reasonably Efficient Competitor

24. We clarify that, in assessing impairment pursuant to the standard set forth in the *Triennial Review Order*, we presume a reasonably efficient competitor. In the *Triennial Review Order*, the Commission concluded that a requesting carrier was impaired "when lack of access to an incumbent LEC network element poses a barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market uneconomic."[13] The *USTA II* court found that the Commission had failed to answer the question, "Uneconomic by whom?"[14] We therefore take this opportunity to resolve any uncertainty, and hereby clarify that our standard, as written, referred to a reasonably efficient carrier. We consider *all* the revenue opportunities that such a competitor can reasonably expect to gain over the facilities, from providing all possible services that an entrant could reasonably expect to sell, taking into account limitations on entrants' ability to provide multiple services, such as diseconomies of scope in production, management, and advertising.[15] We note that commenters in this proceeding generally agree that it is appropriate to determine impairment by reference to a reasonably efficient competitor.[16]

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[9] *See, e.g.*, McLeod Reply at 26-31; MCI Reply at 109-117, ATX Reply at iii, 6-13; Covad Reply at 29-33; Loop and Transport Coalition Reply at 53-56; Eschelon Reply at 12-16; Letter from Jonathan Lee, Sr. Vice President Regulatory Affairs, CompTel/ASCENT, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 23, 2004) (CompTel/ASCENT Nov. 23, 2004 *Ex Parte* Letter).

[10] *See* MCI Reply at 92-104.

[11] *See, e.g.*, SBC Comments at 39.

[12] Indeed, we note that the Commission is currently investigating many of the related but distinct issues raised by parties to this proceeding. *See, e.g.*, *Interim Order and NPRM*, 19 FCC Rcd at 16789, para. 11 n.38 (asking parties to refresh the record regarding collocation at remote incumbent LEC premises assembled in response to *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Second Further Notice of Proposed Rulemaking, 15 FCC Rcd 17806, 17839-56, paras. 70-118 (2000) (subsequent history omitted)); *see also TELRIC NPRM*, 18 FCC Rcd 18945; *Performance Measurements and Standards for Interstate Special Access Services*, CC Docket No. 01-321, Notice of Proposed Rulemaking, 16 FCC Rcd 20896 (2001) (inviting comment on whether the Commission should adopt metrics to prevent discrimination in the provision of special access services); AT&T Corp., Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services, RM-10593 (filed Oct. 15, 2002).

[13] *See Triennial Review Order*, 18 FCC Rcd at 17035, para. 84.

[14] *USTA II*, 359 F.3d at 572.

[15] Diseconomies of scope are the opposite of economies of scope. Diseconomies of scope occur when the cost of producing a good rises when a firm attempts to produce a second good. *See* John C. Panzar, *Technological Determinations of Firm and Industry Structure*, *in* 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 16 (Richard Schmalensee and Robert Willig, eds., 1989).

[16] *See, e.g.*, Alpheus Comments at 81; ALTS *et al*. Comments at 7; BellSouth Comments at 12; Loop and Transport Coalition Comments at 28; Qwest Comments at 13; Verizon Reply at 8.

25. Although the *Triennial Review Order* did not expressly identify the type of carrier for which impairment would be measured, we clarify that a "reasonably efficient competitor" standard accords with the manner in which the Commission conducted its impairment inquiry in that order. For example, the Commission rejected proposals that it should evaluate a requesting carrier's impairment with reference to that carrier's particular business strategy, noting that such an approach "could reward those carriers that are less efficient or whose business plans simply call for greater reliance on UNEs."[17] The Commission also noted that a business-plan specific analysis would potentially "disregard the availability of scale and scope economies gained by providing multiple services to large groups of customers,"[18] and specified that the impairment standard was "based on an entrant providing the full range of services and to all customers supported by the marketplace."[19] Similarly, in its discussion regarding the unbundling of local circuit switching, the Commission stated that its impairment analysis was not based on any particular business model for entry.[20]

26. To the extent that the Commission was unclear on this point in the *Triennial Review Order*, we take this opportunity to emphasize that when we consider whether "lack of access to an incumbent LEC network element poses a barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market uneconomic," we refer to whether entry is economic by a hypothetical competitor acting reasonably efficiently. In analyzing entry from the perspective of the reasonably efficient competitor, we do not attach weight to the individualized circumstances of the actual requesting carrier.[21] Thus, we do not presume that a hypothetical entrant possesses any particular assets, legal entitlements or opportunities, even if a specific competitive carrier in fact enjoys such advantages as a

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[17] *Triennial Review Order*, 18 FCC Rcd at 17056, para. 115.

[18] *Id*.

[19] *Id*. at 17056, para. 115 n.396.

[20] *Id.* at 17303, para. 517 (stating that "[t]he [impairment] analysis must be based on the most efficient business model for entry rather than [on] any particular carrier's business model").

[21] We recognize the conceptual tension inherent in *all* legal standards that rely on abstract norms rather than particular facts (*e.g.*, the "reasonable person standard" of tort law). To illustrate, it would be inappropriate to presume that the reasonably efficient competitor has no business plan and no assets of any type, but a test that measures impairment according to the actual business plan and assets held by the requesting carrier would defeat the purpose of using – indeed, would not be – a general test. The reasonably efficient competitor therefore is more like a conceptual goal than an abstract entity with particular characteristics. Our goal under this standard is to make our impairment determination by placing little or no reliance on the specific facts about an individual requesting carrier, such as that carrier's competitive position vis-à-vis other market participants, or that carrier's particular business strengths or weaknesses. This approach avoids the administrability and other problems that would arise if we were to analyze impairment on a competitor-by-competitor basis, taking into account the revenue opportunities, efficiencies, and costs of each competitor's entire network in each relevant geographic market. *See* Letter from Edwin J. Shimizu, Director Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2 (filed Dec. 7, 2004) (Verizon Dec. 7, 2004 Deployment Costs *Ex Parte* Letter); *see also* Letter from Karen Brinkmann, Counsel for ACS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 5 (filed Dec. 8, 2004) (ACS Dec. 8, 2004 *Ex Parte* Letter) (arguing that customer-specific impairment findings would "provide improper incentives, [and] encourage[e] continued use of UNEs rather than [competitive LEC] investment in facilities").

result of its unique circumstances.[22] Similarly, under our approach, impairment does not arise due to any errors of business judgment made by an actual requesting carrier.

27. In addition, we presume that a requesting carrier will use reasonably efficient technology and incorporate this clarification into our analysis in two ways, one explicit and one implicit. First, we explicitly reject arguments that support unbundling based on the costs associated with a particular architecture or approach – even an architecture or approach employed by the incumbent LEC – where entry using a more efficient available technology would permit economic entry. For example, we reject below arguments based on certain costs associated with the use of the traditional circuit switches used by many incumbent LECs, citing, among other things, the cheaper alternative switching arrangements available to new entrants.[23]

28. Second, our inferences regarding the potential for deployment are based on the characteristics of markets where actual deployment has occurred, which presumes that competitive LECs will use reasonably efficient technologies and take advantage of existing alternative facilities deployment where possible. Consistent with guidance from the court, our conclusions today regarding impairment rely heavily on the inferences that can be drawn from the state of competition in one geographic market regarding the potential for competition in another market. Specifically, to the extent competitors have deployed facilities sufficient to demonstrate that entry is economic in one geographic market, we presume that those facilities are reasonably efficient and that that carrier, or other carriers, could enter other, similar geographic markets on an economic basis using similar (or even more efficient) technologies.[24] Facilities-based competitive LECs have every incentive to deploy efficient technologies so as to maximize quality of service and minimize their costs.[25]

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[22] Thus, for example, the fact that one carrier possesses rights-of-way that mitigate the costs of constructing transmission facilities would not render "inefficient" another carrier that does not enjoy such rights-of-way. We therefore reject the arguments of some parties that just because one competitive LEC holds a particular set of assets, "by extension, any efficient [competitive LEC]" must be deemed to hold those assets. *See* Letter from Gary L. Phillips, General Attorney and Assistant General Counsel, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2 (filed Dec. 8, 2004) (arguing that Time Warner Telecom is not impaired). As BellSouth states, "[a]ssessing economic entry from the perspective of a particular [competitive LEC] or an 'average' [competitive LEC] would reward inefficiency. It also would make it difficult for the Commission to distinguish uneconomic entry from poor business planning or regulatory gamesmanship." BellSouth Comments at 14; *see also* Verizon Reply, Attach. A, Declaration of Alfred E. Kahn & Timothy J. Tardiff (Verizon Kahn/Tardiff Reply Decl.) at para. 15 (stating that the *Triennial Review Order* "properly recognizes that the unbundling obligation should not be linked to the fortunes of particular firms and/or types of firms pursing particular business plans").

[23] *See infra* paras. 208-09. We do not intend to suggest that incumbent LECs could elect to use less efficient technology and thereby prevent unbundling.

[24] Consistent with our findings below, when evaluating impairment with respect to transmission facilities, we limit our assumptions regarding an entrant's use of efficient technologies to use of technologies of the desired capacity level, and reject arguments that we should deny unbundled access simply because a requesting carrier can deploy an OCn-capacity facility. *See infra* paras. 86, 166.

[25] *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17026, para. 70 n.233 ("Facilities-based competition also increases the likelihood that new entrants will find and implement more efficient technologies, thus benefiting consumers."). Incumbent LECs' networks have been constructed incrementally over the course of decades, and thus generally incorporate outdated legacy technologies, which is not the situation for facilities-based competitive LECs.

B. Service Considerations

29. In response to the *USTA II* court's guidance, we revise our standard to foreclose unbundling exclusively to provide services in markets that already are sufficiently competitive. Specifically, we abandon the "qualifying services" approach set forth in the *Triennial Review Order*[26] that limited the section 251(d)(2) inquiry to a subset of telecommunications services, which was rejected by the D.C. Circuit.[27] Under our qualifying services approach, access to UNEs was provided only for the provision of services competing with "core" incumbent LEC offerings, although carriers obtaining access to UNEs for the provision of such "qualifying" services could also use the UNEs to provide other services.[28] In accord with the court's concerns, we amend our unbundling framework and prohibit requesting carriers from obtaining UNEs exclusively to provide service in end-user markets that already are competitive without UNEs.

1. Background

30. Section 251(c)(3) confers on incumbent LECs "[t]he duty to provide [UNEs] to any requesting carrier for the provision of a *telecommunications service*."[29] In establishing which elements should be unbundled in section 251(d)(2), Congress directed the Commission to consider whether "the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the *services* that it seeks to offer."[30] As we have previously held, section 251(d)(2) is ambiguous as to the particular services requesting carriers can provide using UNEs.[31] The Commission has partially resolved this ambiguity by holding that the reference to "services" in section 251(d)(2) is reasonably interpreted to mean "telecommunications services" as used in section 251(c)(3).[32]

31. In its review of the *Triennial Review Order*, the D.C. Circuit noted that, in a prior decision, it had endorsed the general approach of making UNEs available only for the provision of particular telecommunications services,[33] but rejected on statutory grounds the method the Commission had used to identify qualifying services. The court held that the word "services," as used in section 251(d)(2), does

[26] *Id*. at 17067-77, paras. 135-53.

[27] *USTA II*, 359 F.3d at 592.

[28] *Triennial Review Order*, 18 FCC Rcd at 17070, para. 139 (defining qualifying services); *id.* at 17072, para. 143 (adopting rules for use of UNEs for non-qualifying services). Although we discard our qualifying services approach, this does not call into question our existing rule that a carrier obtaining access to a UNE for the provision of a telecommunications service for which UNEs are available may use that UNE to provide other services as well. 47 C.F.R. § 51.100(b); 47 C.F.R. § 51.309(b). We do, however, amend our rule to remove references to our vacated "qualifying services" test.

[29] 47 U.S.C. § 251(c)(3) (emphasis added).

[30] *Id*. at § 251(d)(2)(B) (emphasis added).

[31] *Triennial Review Order*, 18 FCC Rcd at 17068, para. 138; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Supplemental Order Clarification, 15 FCC Rcd 9587, 9595, para. 15 (2000) (*Supplemental Order Clarification*), *aff'd*. *CompTel v. FCC*, 309 F.3d 3 (D.C. Cir. 2002); *USTA I*, 290 F.3d at 422 (stating that Congress "charged the Commission with identifying those network elements whose lack would 'impair' would-be competitors' ability to enter the market, yet gave no detail as to either the kind or degree of impairment that would qualify").

[32] *Triennial Review Order*, 18 FCC Rcd at 17068, para. 138; *USTA II*, 359 F.3d at 591 ("The Commission assumes, as we believe it must, that the reference to 'services' in § 251(d)(2) is meant to refer to the 'telecommunications services' covered by § 251(c)(3).").

not restrict the scope of the unbundling inquiry to "qualifying services."[34] Rather, the court held, the statute requires the Commission to subject *all* telecommunications services to the section 252(d)(2) unbundling inquiry.

32. The *USTA II* court also made clear, however, that UNEs should not be made available for the provision of service in certain markets, observing that where there is "robust competition," it is "hard to see any need for the Commission to impose the costs of mandatory unbundling."[35] In particular, the court observed that the mobile wireless and long distance services markets support significant levels of competition, and questioned whether unbundling was appropriate with respect to those markets.[36]

33. In the same decision, the court also broadly upheld the Commission's exercise of its "at a minimum" authority to consider factors other than impairment when evaluating whether an element should be subject to unbundling.[37] Section 251(d)(2) provides that "the Commission shall consider, *at a minimum*, whether . . . the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer."[38] In the *Triennial Review Order*, the Commission relied on this authority to hold that certain network elements need not be unbundled, despite the possibility of some impairment, where unbundling appears likely to undermine important goals of the Act.[39] The D.C. Circuit affirmed the Commission's use of this method of weighing the benefits and costs of unbundling, citing "at least two ways" in which the Commission might consider "not only the benefits but also the costs of unbundling":

> One way would be to craft a standard of impairment that built in such a balance, as for example by hewing rather closely to natural monopoly features. The other is to use a looser concept of impairment, with the costs of unbundling brought into the analysis under § 251(d)(2)'s "at a minimum" language. The Commission has chosen the latter, and we cannot fault it for doing so. . . . [I]n principle, there is no statutory offense in the Commission's decision to adopt a standard that treats impairment as a continuous rather than as a dichotomous variable, and potentially reaches beyond natural monopoly, but then to examine the full context before ordering unbundling.[40]

[33] *USTA II*, 359 F.3d at 591-92 (citing *CompTel*, 309 F.3d at 12-14).

[34] *Id*. at 591-92.

[35] *Id*. at 576, 592 (stating that "robust competition in the relevant markets belies any suggestion that the lack of unbundling makes entry uneconomic").

[36] *See id*.

[37] *Id*. at 572, 579.

[38] 47 U.S.C. § 251(d)(2) (emphasis added).

[39] In particular, the Commission in the *Triennial Review Order* used its at a minimum authority in support of its decision not to require unbundling of fiber-to-the-home loops and packet switches, and, subject to certain limitations, also of hybrid loops. *See Triennial Review Order*, 18 FCC Rcd at 17145, 17152, 17323, paras. 278, 293, 541.

[40] *USTA II*, 359 F.3d at 572.

2. Prohibition on Unbundling for Exclusive Service to Competitive Markets

34. In light of the guidance received from the D.C. Circuit, we abandon our previous interpretation of section 251(d)(2), and subject all telecommunications services to our unbundling framework. The qualifying service rules set forth in the *Triennial Review Order* maintained that carriers were barred, as a statutory matter, from using UNEs to provide exclusively those telecommunications services that do not compete with "core" incumbent LEC offerings. We now conclude that whether a requesting carrier seeking to provide a telecommunications service is eligible to access UNEs is not subject to such prequalification and instead depends solely on our "impairment" analysis and other factors we consider under section 251(d)(2). Consistent with *USTA II*, we deny access to UNEs in cases where the requesting carrier seeks to provide service exclusively in a market that is sufficiently competitive without the use of unbundling.[41] In particular, we deny access to UNEs for the exclusive provision of mobile wireless services[42] and long distance services.[43] In these two markets, where competition has evolved without such access, we are unable to justify imposing the costs of mandatory unbundling to promote competition.[44]

35. As the D.C. Circuit stressed in its *USTA I* and *USTA II* decisions, the Commission must take into account both the benefits and costs of unbundling before it may require an incumbent LEC to provide unbundled access to network elements pursuant to section 251(c)(3).[45] Applying this requirement in the context of markets where competition has evolved without access to UNEs, the D.C. Circuit stated that it

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[41] The markets we find to be sufficiently competitive for purposes of this Order are markets that the Commission previously has examined and found to be substantially competitive.

[42] In this Order we use the term "mobile wireless service" to refer to all mobile wireless telecommunications services, including commercial mobile radio service (CMRS). *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, WT Docket No. 04-111, Ninth Report, 19 FCC Rcd 20597, para. 219 (2004) (*Ninth CMRS Competition Report*). CMRS includes paging, air-ground radiotelephone service and offshore radiotelephone service, as well as mobile telephony services, such as the voice offerings of carriers using cellular radiotelephone, broadband PCS and SMR licenses. *See* 47 C.F.R. § 20.9; *see also* 47 C.F.R. § 20.3.

[43] In this Order, we use the term "long distance service," or "interexchange service," to mean telecommunications service between stations in different exchange areas. *Cf.* Modification of Final Judgment, § IV(K), *reprinted in*, *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 229 (D.D.C. 1982) (subsequent history omitted) (defining "interexchange telecommunications" as "telecommunications between a point or points located in one exchange telecommunications area and a point or points located in one or more other exchange areas or a point outside an exchange area").

[44] Because we prohibit the use of UNEs for the exclusive provision of mobile wireless service, we dismiss as moot several pending petitions for clarification or reconsideration seeking Commission determinations that CMRS carriers may obtain access to incumbent LEC transmission facilities between wireless cell cites and incumbent LEC wire centers as UNEs and that the Commission's service eligibility criteria do not apply to CMRS carriers. *See* AT&T Wireless Petition for Clarification or Reconsideration, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 2, 2003); Cellular Telecommunications & Internet Association Petition for Reconsideration or Clarification, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 2, 2003); T-Mobile USA, Inc. Petition for Reconsideration, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 2, 2003); Nextel Communications, Inc. Petition for Reconsideration or Clarification, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 2, 2003). Because we deny all unbundled access to incumbent LEC network elements for the exclusive provision of mobile wireless service, we also dismiss as moot that portion of Nextel's petition that asks the Commission to grant "fresh look" relief for CMRS carriers from termination liability for conversion of special access circuits to UNEs. *See* Nextel Communications, Inc. Petition for Reconsideration or Clarification, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 2, 2003).

is "hard to see any need for the Commission to impose the costs of mandatory unbundling" in cases "where robust competition in the relevant markets belies any suggestion that the lack of unbundling makes entry uneconomic."[46] The court specified, in particular, that this inquiry would likely foreclose access to UNEs for the provision of mobile wireless and long distance service.[47] With respect to mobile wireless services, the D.C. Circuit, noting that the Commission repeatedly has found the mobile wireless services market to be highly competitive,[48] found that the data "clearly show that wireless carriers' reliance on special access has not posed a barrier that makes entry uneconomic," and that "market evidence already demonstrates that existing rates outside the compulsion of § 251(c)(3) [*i.e.*, network elements at special access prices] don't impede competition."[49] The court strongly suggested that it also views the long distance market clearly to be competitive.[50]

36. In response to the court, we consider the state of competition in the mobile wireless services market and long distance services market in determining whether a requesting carrier may obtain access to a UNE solely to provide those services. Based on the record, the court's guidance, and the Commission's previous findings, we find that the mobile wireless services market[51] and long distance

[45] *See, e.g.*, *USTA I*, 290 F.3d at 427-28 (directing the Commission to weigh the costs of unbundling as part of an "analysis of the competing values at stake in implementation of the Act"); *id*. at 428-29 (directing the Commission to consider intermodal competition as part of the "competitive context" of its unbundling decisions because "unbundling is not an unqualified good . . . [and] nothing in the Act appears a license to inflict on the economy the [costs of unbundling] under conditions where it had no reason to think doing so would bring on a significant enhancement of competition"); *USTA II*, 359 F.3d at 572 (noting that there is more than one way that the "Commission could have accommodated our ruling in *USTA I* that its impairment rule take into account not only the benefits but also the costs of unbundling (such as discouragement of investment in innovation)"); *id*. at 576 ("[T]he purpose of the Act is not to provide the widest possible unbundling, or to guarantee competitors access to network elements at the lowest price that government may lawfully mandate. Rather, its purpose is to stimulate competition – preferably genuine, facilities-based competition. Where competitors have access to necessary inputs at rates that allow competition not only to survive but to flourish, it is hard to see any need for the Commission to impose the costs of mandatory unbundling."); *id*. at 580 ("We therefore hold that that Commission reasonably interpreted § 251(c)(3) to allow it to withhold unbundling orders, even in the face of some impairment, where such unbundling would impose excessive impediments to infrastructure investment.").

[46] *USTA II*, 359 F.3d at 576, 592 (expressing a belief that the CMRS retail market and long distance service market are competitive).

[47] *Id*. at 576 (discussing competition in the CMRS market and stating that "[w]here competitors have access to necessary inputs at rates that allow competition not only to survive but to flourish, it is hard to see any need for the Commission to impose the costs of mandatory unbundling"); *id*. at 592 ("As we noted with respect to wireless carriers' UNE demands, competitors cannot generally be said to be impaired by having to purchase special access services from ILECs, rather than leasing the necessary facilities at UNE rates, where robust competition in the relevant markets belies any suggestion that the lack of unbundling makes entry uneconomic.").

[48] *Id*. at 575-76 (citing evidence that competition for mobile wireless services is flourishing).

[49] *Id*. at 575, 576 (stating that "the multi-million dollar sums that the Commission regularly collects in its auctions of such spectrum, . . . and that firms pay to buy already-issued licenses, . . . seem to indicate that wireless firms currently expect that net revenues will, by a large margin, more than recover all their non-spectrum costs (including return on capital)").

[50] *Id*. at 592 (stating that "CLECs have pointed to no evidence suggesting that they are impaired with respect to the provision of long distance services"); *see also id*. ("As we noted with respect to wireless carriers' UNE demands, *competitors* cannot generally be said to be impaired by having to purchase special access services from ILECs, rather than leasing the necessary facilities at UNE rates, where robust competition in the relevant markets belies any suggestion that the lack of unbundling makes entry uneconomic.").

services market[52] are markets where competition has evolved without access to UNEs.[53] We further find that whatever incremental benefits could be achieved under the Act by requiring mandatory unbundling in these service markets would be outweighed by the costs of requiring such unbundling. As we found in the *Triennial Review Order*, unbundling can create disincentives for incumbent LECs and competitive LECs to deploy innovative services and facilities, and is an especially intrusive form of economic regulation – one that is among the most difficult to administer.[54] Therefore, as an exercise of our "at a minimum" authority, we decline to order unbundling of network elements to provide service in the mobile wireless services market and the long distance services market.[55]

37. As just noted, our ruling today rests on our "at a minimum" authority. In the past, we have used such authority to decline to require unbundling in contexts where some level of impairment may exist,

[51] The Commission repeatedly has found the mobile wireless service market to be competitive. *See, e.g., Ninth CMRS Competition Report*, FCC 04-216, para. 20 (addressing the status of competition for CMRS and some non-CMRS mobile wireless services and observing that, during 2003, the CMRS industry continued to experience the benefits of competition, including "increased service availability, intense price competition, and a wider variety of service offerings"); *id.* at para. 223 (stating that 97% of the U.S. population has access to three or more different mobile wireless operators, and 87% of the U.S. population lives in counties with five or more mobile telephone operators); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, WT Docket No. 02-379, Eighth Report, 18 FCC Rcd 14783, 14786, para. 4 & n.12 (2003) (*Eighth CMRS Competition Report*) (stating that "the Commission has routinely acknowledged that it has chosen not to regulate mobile wireless providers as dominant carriers" and citing examples); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, FCC 02-179, Seventh Report, 17 FCC Rcd 12985 (2002) (*Seventh CMRS Competition Report*); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, FCC 01-192, Sixth Report, 16 FCC Rcd 13350 (2001) (*Sixth CMRS Competition Report*); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, FCC 00-289, Fifth Report, 15 FCC Rcd 17660 (2000) (*Fifth CMRS Competition Report*); *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation*, WT Docket Nos. 04-70, 04-254, 04-323, Memorandum Opinion and Order, 19 FCC Rcd 21522, para. 191 (2004) (*AWS/Cingular Merger Order*) (permitting the second and third largest providers of mobile telephony services to merge in part because the likelihood of unilateral or coordinated anticompetitive effects as a result of the merger was generally low). The CMRS competition reports and others are available on the FCC's website at *http://wireless.fcc.gov/cmrs-crforum.html*.

[52] The Commission on several previous occasions has concluded that the long distance service market is competitive. In 2004, for example, the Commission found that cost savings realized by allowing BOCs and their section 272 long distance affiliates to share operating, installation and maintenance functions likely would be passed on to long distance consumers because "the long distance market is substantially competitive." *Section 272(b)(1)'s "Operate Independently" Requirement for Section 272 Affiliates; Petition of SBC for Forbearance from the Prohibition of Sharing Operating, Installation, and Maintenance Functions Under Sections 53.203(a)(2) and 53.203(a)(3) of the Commission's Rules and Modification of Operating, Installation, and Maintenance Conditions Contained in the SBC/Ameritech Merger Order; Petition of BellSouth Corporation for Forbearance from the Prohibition of Sharing Operating, Installation, and Maintenance Functions Under Section 53.203(a)(2)-(3) of the Commission's Rules; Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, Report and Order in WC Docket No. 03-228, Memorandum Opinion and Order in CC Docket Nos. 96-149, 98-141, 01-337, 19 FCC Rcd 5102, 5120, para. 28 (2004); *see also, e.g., Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area; Policy and Rules Concerning the Interstate, Interexchange Marketplace*, CC Docket Nos. 96-149, 96-61, Second Report and Order in CC Docket No. 96-149; Third Report and Order in CC Docket No. 96-61, 12 FCC Rcd 15756, 15805, para. 86 (1997) (*LEC Classification Order*) ("Because we previously have found that markets for long distance services are substantially competitive in most areas, marketplace forces should effectively deter carriers that face

but where unbundling appeared likely to undermine important goals of the 1996 Act.[56] Our exercise of this authority today is closely comparable. Where a requesting carrier seeks access to a UNE in order to provide a telecommunications service where competition has evolved without access to such a UNE, we find the costs cognizable under the Act of unbundling that UNE outweigh the benefits of unbundling, even if some level of impairment might be present. We believe this application of our at a minimum authority is the most faithful implementation of *USTA II*. There, the court recognized that the structure of the Act "suggests that 'impair' must reach a bit beyond natural monopoly," and thus, before making an unbundling determination, the Commission reasonably may examine the full context of that decision, including the costs of unbundling, under the "at a minimum" language of section 251(d)(2).[57]

38. We do not believe that it is appropriate at this time to render similar judgments regarding other services specified in the Act – namely, telephone exchange service and exchange access service, the two

competition from engaging in the practices that Congress sought to address through the section 214 requirements."); *Ninth CMRS Competition Report*, FCC 04-216, para. 195 (discussing quality of service issues and noting that long distance telephone service "is highly competitive"); *cf. Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc.*, CC Docket Nos. 00-251, 00-218, Memorandum Opinion and Order, 18 FCC Rcd 17722, 17762, para. 91 (WCB 2003) (noting that long distance companies such as AT&T and "pre-bankruptcy" WorldCom build, own, operate, and maintain long distance networks and "operate these assets in an environment that clearly is competitive, with a number of ubiquitous facilities-based competitors"); *Applications of XO Communications, Inc.*, IB Docket No. 02-50, Memorandum Opinion, Order and Authorization, 17 FCC Rcd 19212, 19225-26 (IB, WTB, WCB 2002) (holding that the merger of XO and McLeod would not harm the public interest because both entities "operate in the highly competitive U.S. domestic and international long distance and Internet markets targeting small and medium sized business users"); SBC Comments at 24-25.

[53] Mobile wireless carriers do not currently use UNEs in their provision of mobile wireless services. *See, e.g.*, T-Mobile Comments at 2; T-Mobile Reply at 2; Nextel Reply at 2. Interexchange carriers largely have relied on special access to originate and terminate their long distance traffic. *See* Letter from Evan T. Leo, Counsel for BellSouth *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Attachs. 1 & 2 (filed Dec. 13, 2004) (BOC Dec. 13, 2004 *Ex Parte* Letter) (showing that nearly all of the DS1s and DS3s purchased by AT&T, WorldCom and Sprint from the incumbent LECs are purchased as special access).

[54] *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17071, 17229, paras. 141, 404.

[55] While some commenters express concern that the BOCs someday will monopolize the long distance service market now that they all have acquired section 271 approvals throughout their service areas, they do not rebut the fact that today the long distance service market is competitive. AT&T Comments at 83, 134-5, 139-41 (acknowledging that the incumbent LECs currently do not have a dominant share of the long distance service market); MCI Comments at 173 (stating that incumbent LECs currently "are competing vigorously in the interexchange market"); MCI Reply at 111-15 (acknowledging that competitive LECs have been able to rely on special access for some services "to date," and arguing that incumbent LECs' new incentives to impose a price squeeze may prevent such reliance in the future); *cf.* Verizon Comments, Attach. G, Declaration of Eric. J. Bruno (Verizon Bruno Decl.) at para. 16 (stating that Verizon could not compete seriously for large enterprise customers until it had received authority to provide long distance service in *all* of its service territories, which occurred just last year."). Pending before the Commission is a proceeding examining the implications of the expiration of the section 272 requirements which apply to the BOCs' provision of long distance service. *Section 272(f)(1) Sunset of the BOC Separate Affiliate and Related Requirements; 2000 Biennial Regulatory Review Separate Affiliate Requirements of Section 64.1903 of the Commission's Rules*, WC Docket No. 02-112, CC Docket No. 00-175, Further Notice of Proposed Rulemaking, 18 FCC Rcd 10914 (2003).

[56] *See Triennial Review Order*, 18 FCC Rcd at 17086-92, paras. 172-78.

services local exchange carriers provide.[58] The local services market does not share the competitive conditions, observed in the mobile wireless services market and long distance services market, that would support a parallel finding that the costs of unbundling outweigh the benefits. In contrast to its conclusions regarding competition in the mobile wireless services and long distance services markets, the Commission has not reached similar competitive conclusions about the core markets traditionally served by local exchange carriers. Nor has the D.C. Circuit suggested that we do so. In addition, to the extent that competition has evolved in the local exchange services market, again unlike in the mobile wireless services and long distance services markets, such competition has not evolved without UNEs. Instead, in particular since the passage of the 1996 Act, competition in this market has been substantially affected by, if not enabled by, the availability of UNEs.[59] For these reasons, as well as those set forth below,[60] we find that the limited use competitive LECs have made of incumbent LECs' tariffed alternatives as components of their local exchange service offerings does not show that a competitive market could develop and survive if access to UNEs were withdrawn completely for this service market.

39. Some incumbent LECs, nevertheless, argue that the Commission should reach similar conclusions about the state of competition in local exchange markets, particularly based on competition from cable companies.[61] As discussed more fully below, we consider such evidence of competition from cable providers as part of our impairment analysis.[62] Our review shows that cable companies predominantly compete in the mass market for broadband services throughout the country.[63] To the

[57] *USTA II*, 359 F.3d at 572.

[58] 47 U.S.C. § 153(26) (defining "local exchange carrier"); *id.* at § 153(47) (defining "telephone exchange service"); *id.* at § 153(16) (defining "exchange access"). We clarify that our determinations regarding telephone exchange service and mobile wireless services should not be understood to imply that mobile wireless service can never be "service within a telephone exchange, or within a connected system of telephone exchanges . . . or comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service." 47 U.S.C. § 153(47).

[59] *See infra* para. 65.

[60] *See infra* Part IV.D.5.

[61] *See* Verizon Comments at 3, 51-54, 91-95; SBC Comments at 68-69; BellSouth Comments at 20-23; Qwest Comments at 34-39. We do not dismiss the notion that such conclusions might someday be appropriate, upon findings of sufficient facilities-based competition in the local exchange market. Nevertheless, we do not believe that competition based on use of the incumbent's facilities, including competition based on UNEs, would constitute a sufficient basis for findings precluding access to UNEs for provision of service to the local exchange market.

[62] *See infra* paras. 95, 193-94.

[63] Some commenters argue that the Commission should deny access to UNEs for the provision of local exchange service due to intermodal competition and voice over IP (VoIP). *See, e.g.*, SBC Comments at 49-55; SBC Reply at 77-79; Verizon Comments at 85-88, 91-99, 106-09; USTA Reply at 7-9; BOC UNE Fact Report 2004 at II. We disagree. Customers seeking to use VoIP as a substitute for circuit-switched telephone service must first subscribe to a broadband service, such as DSL or cable modem service. While broadband penetration rates are increasing, broadband service today is far from ubiquitous. *See* Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of June 30, 2004*, Tables 1-2 (Dec. 2004) (reporting that as of June 2004 there were 32,458,458 "high speed" lines with capacity of over 200 kbps in at least one direction, of which 23,473,932 are classified as "advanced services" lines with capacity in excess of 200 kbps in both directions); *see also* Verizon Comments, Attach. I, Declaration of Michael K. Hassett & Vincent J. Woodbury (Verizon Hassett/Woodbury Decl.) at para. 38 (claiming that that the broadband penetration rate is approximately 25%), MCI Reply at 17 (claiming that the broadband penetration rate is approximately 21%). In

extent that they compete in other product markets, like the enterprise services market, such competition is evolving more slowly and in more limited geographic areas.[64] Accordingly, our impairment analysis considers the markets where this competition has occurred, and reaches the appropriate unbundling conclusions based on this competition. We also note that incumbent LECs remain free to seek forbearance from the application of our unbundling rules in specific geographic markets where they believe the aims of section 251(c)(3) have been "fully implemented" and the other requirements for forbearance have been met.[65] One incumbent LEC, Qwest, has already sought such relief in one geographic market, and we encourage other incumbent LECs to file similar petitions where appropriate.[66]

40. Finally, we note that incumbent LECs remain subject to the nondiscrimination provisions of the Act, such as that found in section 202. Thus, where wireless and long distance carriers seek to use incumbent LEC facilities on a tariffed basis, they will be entitled to access on similar terms as other, similarly situated carriers.[67]

C. Reasonable Inferences

41. We next highlight our reliance, in this Order, on the reasonable inferences that can be drawn with regard to one market from evidence of competitive deployment in other, similar markets.[68] In its early

addition, customers who use DSL as their broadband platform generally must also subscribe to wireline telephone service in order to obtain, or at least to obtain widely advertised rates for, that DSL service, which suggests that for such customers VoIP is purchased as a supplement to, rather than a substitute for, traditional local exchange service. *See* Covad Reply at 8; MCI Reply at 20. Although we recognize that limited intermodal competition exists due to VoIP offerings, we do not believe that it makes sense at this time to view VoIP as a substitute for wireline telephony. *See, e.g.*, *AWS/Cingular Merger Order*, 19 FCC Rcd, para. 238 n.557 (recognizing that SBC and BellSouth face some competition from cable operators and VoIP providers); *cf. also* MCI Reply at 12 (claiming that only 200,000 subscribers currently subscribe to VoIP services).

[64] *See, e.g.*, Letter from Thomas Jones, Counsel for Cbeyond, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 19, 2004) (Cbeyond Nov. 19, 2004 *Ex Parte* Letter) (describing ways in which competition from cable operators has been limited); *see also* Letter from Michael H. Pryor, Counsel for NuVox, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 22, 2004) (NuVox Nov. 22, 2004 *Ex Parte* Letter) (same); ALTS *et al*. Reply at 33 ("If business class cable modem services really were comparable to DS1 level services, businesses would not be willing to pay 5 times as much for a DS1 as they do for a business cable modem connection.").

[65] Section 10 of the Act sets forth the relevant forbearance requirements. 47 U.S.C. § 160. Section 10(d) specifies that "[e]xcept as provided in section 251(f), the Commission may not forbear from applying the requirements of section 251(c) or 271 . . . until it determines that those requirements have been *fully implemented*." *See id*. at § 160(d) (emphasis added). Assuming that requirement is met, the Commission is required to forbear from any statutory provision or regulation if it determines that: (1) enforcement of the regulation is not necessary to ensure that charges and practices are just and reasonable, and are not unjustly or unreasonably discriminatory; (2) enforcement of the regulation is not necessary to protect consumers; and (3) forbearance is consistent with the public interest. *See id*. at § 160(a).

[66] *See* Qwest Corporation Petition for Forbearance Pursuant to 47 U.S.C. § 160(c), WC Docket No. 04-223 (filed June 21, 2004) (requesting that the Commission forbear from applying the requirements of section 251(c) and sections 271(c)(2)(B)(i-vi) and (xiv) to Qwest's provision of telecommunications services in the Omaha, Nebraska MSA and from regulating Qwest as a dominant carrier and as the incumbent LEC in the Omaha MSA).

[67] 47 U.S.C. § 202.

[68] As described below in the sections applying our standard to particular elements, we generally assess "similarity" in terms of the expected revenue opportunities and/or the likely presence of competitive fiber facilities in the markets at issue. *See infra* Parts V, VI.

efforts to implement the Act's unbundling requirements, the Commission relied on national unbundling rules. In *USTA I*, the D.C. Circuit criticized the Commission's decision "to adopt a uniform national rule, mandating [an] element's unbundling in every geographic market and customer class, without regard to the state of competitive impairment in any particular market."[69] In response to the court's concerns, we adopted in the *Triennial Review Order* a more nuanced approach, accounting not only for geographic market disparities but also for specific customer classes (*i.e.*, for distinctions between the mass market and the enterprise market). With regard to many of the elements most central to the provision of telecommunications service, we adopted specific triggers that tied unbundling determinations to the state of competitive deployment in particular markets, and to the potential for such deployment as evidenced by the presence of economic and operational barriers to entry. In these cases, we asked the state commissions to apply the triggers that measured actual deployment and to perform the "potential deployment" analyses.[70]

42. In addition to striking down the Commission's subdelegation of authority to state commissions, the D.C. Circuit also directed the Commission to treat competitive deployment in one market as probative of the prospects for competition in similar markets – that is, to draw inferences regarding the prospects for competitive entry in one market based on the state of competition in another market. Thus, for example, the court directed the Commission, when evaluating whether requesting carriers are impaired without unbundled access to incumbent LECs' dedicated transport facilities along a particular route, to consider evidence of deployment along similar routes.[71]

43. We adopt in this Order an approach that relies – to a far greater degree than our previous analyses – on the inferences that can be drawn from one market regarding the prospects for competitive entry in another. Specifically, as described in detail below, we rely, where possible, on correlations between business line counts and/or fiber collocations in a particular wire center,[72] on the one hand, and the deployment of competitive dedicated transport or high-capacity loops, on the other.[73] As described below, the record shows a correlation between the number of business lines and/or fiber collocations in a wire center and a revenue opportunity sufficient to lead to facilities duplication in the geographic area served via that wire center.[74] In light of these correlations, we draw inferences, based on competitive deployment in certain markets, regarding the likelihood of competitive entry in other markets exhibiting similar characteristics. We believe it is reasonable to expect that competitive LECs can most economically deploy dedicated transport facilities and high-capacity loops in those geographic markets where revenue opportunities are highest, which is confirmed by the evidence of actual deployment found in the record. Thus, in lieu of the *Triennial Review Order*'s approach – which coupled triggers measuring actual deployment with fact-intensive, market-by-market potential deployment analyses, both of which were to be performed by state commissions – we adopt below a regime that accounts for actual

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[69] *USTA I*, 290 F.3d at 422.

[70] *See Triennial Review Order*, 18 FCC Rcd at 17232-33, paras. 410-11; *id*. at 17299, paras. 506-07.

[71] *See infra* Part V. As the court summarized it, when the Commission analyzes impairment between points A and C, it cannot, without good reason, ignore the fact that multiple competitors supply DS1 transport between points A and B, assuming that A, B, and C are all in the same geographic market and are similarly situated with regard to entry barriers. *USTA II*, 359 F.3d at 575.

[72] *See generally infra* Parts V, VI.

[73] *See id*.

[74] *See id*.

and potential deployment by inferring from competitors' facilities deployment in one market the ability of a reasonably efficient competitor to enter another, similar market in an economic manner.

44. We believe that, where warranted, our exercise of discretion to use reasonable inferences instead of fact-specific proceedings conducted by this Commission to determine impairment is reasonable and best serves the public interest. First, it would be impossible for this Commission to conduct the fact-intensive, market-specific inquiries that we previously asked the states to conduct to determine carriers' impairment with regard to various elements. Our choice below to draw inferences based on factors including the number of business lines and/or competitive fiber-based collocators in a given central office is a workable standard that permits us to adopt rules that provide for a substantial degree of geographic specificity without reliance on state decision-making. Accordingly, this approach allows the Commission to execute its statutory obligation to render unbundling determinations without "loftily abstract[ing] away all specific markets"[75] while also avoiding individualized review of each discrete geographic market such as that which we previously asked the states to perform.[76]

45. Second, as indicated above, our use of inferences – which denies unbundled access in markets similar to other markets in which competitors have entered without relying on UNEs – gives effect to our requirement that impairment should be found only where a reasonably efficient requesting carrier could not enter and provide service on an economic basis.[77] Because this approach assumes that competitors could enter into markets that have economic characteristics resembling those where competitors have entered, the tests we adopt here discount any particular carrier's failure to enter due to its own inefficiency; rather, this approach presumes that reasonably efficient carriers in one market could enter where competitors have entered in another, similar market. Third, when reasonable inferences based on the record combined with our predictive judgment do not yield a determinate answer as to whether market entry is economic, we decline to order unbundling in recognition of the substantial costs inherent in unbundling requirements. Thus, our use of inferences satisfies the *USTA II* court's directive that we account for entry in one market when evaluating the prospects for entry in a similar market, without contravening either the court's prohibition on subdelegation or its requirement that unbundling decisions be made at a sufficient level of geographic granularity.

D. Relevance of Tariffed Alternatives

46. In response to the *USTA II* court, and arguments raised by various incumbent LECs in our record,[78] we consider the appropriate role of tariffed incumbent LEC services in our unbundling framework. Above, we have addressed the court's core concern, barring use of UNEs for the provision of

[75] *USTA I*, 290 F.3d at 423.

[76] Although some commenters suggest a two-phase proceeding to determine impairment, we find that the delays inherent in a two-step approach would perpetuate the uncertainty about our unbundling regime, harming competitors and incumbent LECs alike by perpetuating the substantial uncertainty about what UNEs will be available, thereby, among other harms, stifling the investment and innovation of all parties involved. Furthermore, although we cast no doubt on our ability to use a waiver process or other "safety valves" to mitigate a degree of over- or under-inclusiveness that otherwise would exist in our rules, we do not believe we can order that an element be unbundled where no showing of impairment has been made in light of the known costs of unbundling, including reducing the incentives to invest in facilities and innovation and creating complex issues of managing shared facilities, simply because we plan to hold a second proceeding in which we will revisit these same issues and attempt to create a record in each market that contains more factual specificity.

[77] *See supra* paras. 24-28.

[78] *See, e.g.*, Qwest Comments at 24-30; BellSouth Reply at 45-58; MCI Comments at 151 (urging the Commission to analyze the impact of special access on impairment as a result of *USTA II*).

service in the mobile wireless and long distance markets, where carriers have successfully used special access to compete. Here, we address the relevance of special access to the unbundling inquiry in the local exchange markets where we find UNE access to be appropriate. We find that statutory concerns, administrability concerns, and concerns about an anticompetitive price squeeze, preclude a rule that forecloses UNE access upon a finding by the Commission that carriers are potentially able to compete using special access or other tariffed alternatives. We also find that a competitor's current use of special access does not, on its own, demonstrate that that carrier is not impaired without access to UNEs.[79]

47. In the *Triennial Review Order*, we "reaffirm[ed] our prior conclusion in the *UNE Remand Order* to afford little weight to evidence that requesting carriers are using incumbent LEC tariffed services."[80] We grounded our decision on four factors: (1) the fact that an alternative rule would enable the incumbent LEC to avoid unbundling simply by offering a tariffed alternative; (2) the fact that the Act requires unbundling at cost-based rates; (3) the different risks and opportunities associated with tariffed services and UNEs; and (4) the power of the incumbent to utilize vertical price squeezes against competitors relying on the incumbent for tariffed wholesale inputs.[81] In the context of its discussion of UNE access for provision of mobile wireless services, the *USTA II* court rejected the first rationale, suggesting that "[w]here competitors have access to necessary inputs at rates that allow competition to flourish" – as it had flourished in the mobile wireless market – "it is hard to see any need" for unbundling.[82] Second, the court found the Commission's reliance on the Act's mandate of unbundling at cost-based rates circular, given that the question at hand was just which elements should be made available at those rates.[83] Regarding the third rationale, the court recognized that the different opportunities and risks associated with UNEs and tariffed alternatives might justify unbundling notwithstanding the availability of such services – though "not with respect to wireless" – but that the Commission must at least consider the specific differences before relying on those differences.[84] Finally, with regard to the risk of an incumbent-orchestrated price squeeze, the court "recognize[d] that, given the ILECs' incentive to set the tariff price as high as possible and the vagaries of determining when that price gets so high that the 'impairment' threshold has been crossed," a rule barring unbundling wherever entrants could compete using tariffed offerings "might raise real administrable issues."[85] Moreover, the court underscored that "[t]hose complications might in principle support a blanket rule treating the availability of ILEC tariffed service as irrelevant to impairment," but noted that the Commission had not "defended its decision in those terms or even tried to explicate these complications."[86] Thus, the court directed the Commission to address more fully the relevance of tariffed special access alternatives to the impairment inquiry.

48. Here, upon further consideration, we determine that in the local exchange market, the availability of a tariffed alternative should not foreclose unbundled access to a corresponding network element, even

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[79] *See infra* Part VI.C (discussing tariffed incumbent LEC services in the context of high-capacity loops).

[80] *Triennial Review Order*, 18 FCC Rcd at 17048, para. 102, *citing UNE Remand Order*, 15 FCC Rcd 3696, 3732-34, paras. 67-70 (1999).

[81] *Triennial Review Order*, 18 FCC Rcd at 17048, para. 102.

[82] *USTA II*, 359 F.3d at 576.

[83] *See id.* at 577.

[84] *Id*.

[85] *Id*. at 576.

[86] *Id*.

where a carrier could, in theory, use that tariffed offering to enter a market. As we explain below, our restrictions on UNE access for provision of service in the mobile wireless and long distance markets, as well as our unbundling decisions with regard to specific elements, substantially limit the prospects that special access arrangements might be converted to UNEs – and thus the scope of the present inquiry – substantially. We hold, in contrast, that in the local exchange market, a bar on UNE access wherever competitors could operate using special access would be inconsistent with the Act's text and its interpretation by various courts, would be impracticable, and would create a significant risk of abuse by incumbent LECs. It would be unreasonable to conclude that Congress created a structure to incent entry into the local exchange market, only to have that structure undermined, and possibly supplanted in its entirety, by services priced by, and largely within the control of, incumbent LECs. Finally, we find that a competitor's current use of special access in the local exchange market does not conclusively demonstrate non-impairment.

1. Limited Scope of Inquiry

49. As an initial matter, we clarify that in this section we are addressing only the use of special access in markets other than the mobile wireless services and long distance services markets, namely, the local exchange markets. The *USTA II* court suggested that special access may act as a blanket substitute for UNEs "[w]here competitors have access to necessary inputs at rates that allow competition not only to survive but to flourish."[87] Above, we gave effect to this holding, finding that competition has evolved without access to UNEs in the mobile wireless and long distance services markets, and that whatever benefits could be achieved by requiring mandatory unbundling in these two service markets would be outweighed by the costs of requiring such unbundling. As stated above, however, the court did not suggest that the existence of tariffed special access offerings necessarily preclude unbundling for provision of service to the local exchange market.[88] Thus, in this section, we address only the impact on our unbundling regime of the minority of special access circuits that are *not* used for the exclusive provision of interexchange service or mobile wireless services. Moreover, of the special access arrangements used to compete in the local exchange market, only a subclass are at issue here. Incumbent LECs offer lit services over a wide range of transmission facilities through their special access tariffs, facilities for which there often is no corresponding unbundling obligation. Even setting aside the availability of tariffed alternatives, we have previously determined there is no unbundling obligation for any OCn loops or transport, and, as described below, we do not require that incumbent LECs make their other high-capacity loops or transport available to customers in many cases. Special access used to connect incumbent LECs' networks to competitors' networks also cannot be converted into UNEs because, as we make clear below, competitors are not impaired without access to entrance facilities, or links to mobile base stations or switching centers. Further, in other orders, we have substantially limited unbundled access to fiber-to-the-home, fiber-to-the-curb, and hybrid loops used to serve the mass market. In short, the scope of our inquiry in this section is significantly circumscribed by our decisions to deny unbundled access for reasons other than the availability of tariffed incumbent LEC offerings such as special access. Thus, only where we do not otherwise limit unbundling, such as for certain end-user channel terminations, is our discussion of special access alternatives relevant.

2. Statutory Concerns

50. We first conclude that the language and structure of the Act, as well as the interpretations that the Supreme Court and courts of appeals have adopted with regard to the provisions at issue militate against

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[87] *Id.*

[88] *See supra* para. 17.

a bar on UNE access wherever carriers could compete using special access. Specifically, for reasons not previously considered by the court of appeals, the approach urged by incumbent LECs would be inconsistent with the structure of the Act and the policies underlying it.

51. First, any interpretation of the Act that would bar UNE access wherever carriers could compete using an incumbent LEC's tariffed special access offering would substantially undercut the statutory framework established by Congress in sections 251 and 252. Incumbent carriers have offered tariffed "special access" products since before the Act's passage in 1996. Thus, Congress's enactment of section 251(c)(3), and the associated cost-based pricing standard in section 252(d)(1), at a time when special access services were already available to carriers in the local exchange market indicates that UNEs were intended as an *alternative* to these services, available at alternative pricing.[89] Indeed the Supreme Court has emphasized that Congress's passage of the Act represented "an explicit disavowal of the familiar public-utility model of rate regulation … in favor of novel ratesetting designed to give aspiring competitors every possible incentive to enter local retail telephone markets, short of confiscating the incumbents' property."[90] An approach that precluded access to UNEs wherever special access services were available, however, would have thwarted the very purpose of section 251(c)(3), because this approach would allow incumbent LECs, in all cases, to offer services on a tariffed basis at prices just low enough to permit competition, rather than subject to the alternative cost-based rates prescribed by section 251(d)(2) of the Act. Special access prices are regulated pursuant to the Communications Act's "just and reasonable" standard, which predates and bears no necessary relation to this cost-based standard, relying instead on historical costs. Thus, if anything, Congress expressly sought to displace the special access regime – as it applied to the local exchange market – wherever entry depended on the use of bottleneck inputs; it did *not* intend to permit services offered pursuant to "the familiar public-utility model of rate regulation" to trump its more aggressive posture regarding competition.[91]

52. Certainly, if Congress meant to promote competition using a pricing framework representing a significant departure from the existing rate regulation regime, it could not have also intended to allow incumbent LECs to evade this regime simply by setting alternative, higher rates completely outside the standards and structure of section 251.[92] This is particularly so where a primary purpose of the Act – the promotion of facilities-based competition – would be frustrated by an interpretation that would rely to a pervasive extent upon the tariffed sale of incumbent special access services. We therefore decline to

[89] *See, e.g.*, Sprint Comments at 37-38; ALTS *et al*. Comments at 10-13.

[90] *Verizon Communications v. FCC*, 535 U.S. 467, 489 (2002). The Court also noted that "a policy promoting lower lease prices for expensive facilities unlikely to be duplicated reduces barriers to entry (particularly for smaller competitors) and puts competitors that can afford these wholesale prices (but not the higher prices the incumbent LECs would like to charge) in a position to build their own versions of less expensive facilities that are sensibly duplicable." *Id.* at 503 n.20.

[91] The *USTA II* decision could be read to suggest that special access services are made available pursuant to section 251(c)(4) of the Act, which requires incumbent LECs to make retail services available to competitors at state-mandated discounts reflecting avoided costs such as those associated with advertising and billing. *See USTA II*, 359 F.3d at 577. Special access services, however, provide competitors with one wholesale input, rather than with a retail service; competitors generally combine this wholesale input with other competitively provisioned services or facilities to build a complete service, which is then offered to retail customers. Thus, the Commission has explicitly excluded special access services from the ambit of section 251(c)(4). *See, e.g.*, *Local Competition Order*, 11 FCC Rcd at 15934, para. 873 (stating that exchange access services are not subject to the resale requirements of section 251(c)(4)); *id.* at 15983, para. 980 ("IXCs must . . . purchase access services from incumbent LECs outside of the resale framework in 251(c)(4), through existing interstate access tariffs); *id.* at 15984, para. 984 (concluding that incumbent LEC interstate access services, which are provided to other carriers rather than to retail subscribers, are not subject to the resale requirements of section 251(c)(4)). Thus, our conclusions regarding the relevance of special access to the unbundling inquiry does not rely on section 251(c)(4).

adopt the argument that UNE access is barred wherever carriers could compete in the local exchange market using tariffed incumbent LEC alternatives.

53. In addition, denying access to UNEs wherever the incumbent LEC offers an equivalent tariffed service on terms that allow for retail competition would risk a substantial shift in the federal and state oversight roles over pricing of network elements that Congress established in sections 251 and 252 of the Act. As the Supreme Court has recognized, these sections contemplate a federal-state partnership in the development of competition in the local exchange market. While intrastate special access does exist, the vast majority of special access offerings are purchased pursuant to federal tariffs, over which the states have no jurisdiction.[93] If incumbent LECs are able to avoid unbundling obligations under section 251(c)(3) simply by providing a federally tariffed special access alternative, they would be able to eliminate the states from any role in implementing local competition under the Act, including their role in establishing the prices at which UNEs are available to competitors. This result would be antithetical to the shared framework Congress established for regulatory oversight of telecommunications services and carriers.[94]

3. Administrability

54. Apart from the statutory concerns set forth above, we also conclude that a rule foreclosing access to a UNE solely because a requesting carrier could compete using a tariffed incumbent LEC alternative would require a resource-intensive inquiry that would be antithetical to the Act's deregulatory purpose.[95] Under this approach, the Commission would need to evaluate, on a case-by-base basis, whether a particular requesting carrier seeking a particular UNE for service to a particular location could compete on an economic basis by using the incumbent LEC's tariffed service instead of an unbundled element. This analysis would require us to assess the potential revenues available to the requesting carrier and the price at which it could obtain a tariffed alternative, which vary dramatically on several distinct bases. As explained below, case-by-case analysis of these two questions, performed at the federal level, would be impracticable.[96]

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[92] *See* CompTel/ASCENT Comments at 24 (arguing that "[i]f Congress believed that keeping special access prices and service quality at reasonable levels was sufficient to generate competitive entry, it would have been far easier to establish a rigorous regulatory regime for special access services rather than to create an entirely new regime of unbundled network elements"). As several commenters have pointed out, incumbent LECs traditionally have lacked significant incentive to discriminate in their provision of special access to long distance carriers due to section 271 line-of-service restrictions and section 272 separation requirements. *See* ALTS *et al*. Comments at 20-23; AT&T Comments at 95, 122. Although incumbent LECs have had greater incentives to discriminate in favor of their mobile wireless affiliates, any such incentives have been offset by a countervailing risk of retaliation by other incumbent LECs. Because the incumbent LECs' CMRS affiliates compete nationally for customers and rely in out-of-region territories on their competitors' special access offerings, discrimination in special access offerings to CMRS carriers by one incumbent LEC would invite retaliation from other incumbent LECs. *See* ALTS *et al*. Comments at 15; Loop and Transport Coalition Comments at 54; Covad Comments at 80 n.125; McLeod Reply at 29. In contrast, in the local exchange services market, incumbent LECs have a clear incentive to discriminate against their competitors.

[93] *See, e.g.*, Qwest Comments at 30 n.91 (stating that nearly all of Qwest's special access DS1 and DS3 circuits are purchased from interstate, rather than intrastate, tariffs).

[94] *See AT&T Corp. v. Iowa Utilities Board*, 525 U.S. 366, 377-86 (1999).

[95] No commenter has proposed a test to account for special access services in a way that avoids the burdens of the fact-intensive inquiries discussed in this subsection. Although it is possible to account for special access in a general manner by ignoring the factual complexities pervading special access services that we discuss above, we believe that making general inferences regarding special access would not be a meaningful measure of impairment and would be grossly over- or under-inclusive.

55. Among the reasons an alternative approach is unworkable is that the Commission is unable to assess, on a case-specific basis, the appropriate cost facing a requesting carrier relying on a tariffed incumbent LEC offering. Incumbent LECs offer tariffed dedicated transport and end-user channel terminations pursuant to both state and federal tariffs, depending on whether the offering is jurisdictionally intra- or interstate. Moreover, particularly in areas subject to the Commission's pricing flexibility regime, incumbent LECs are entitled to offer services under individually negotiated contract tariffs subject to a wide variety of discounts tied to factors such as the length of the term, and the volume of service to which a competitive carrier is willing to commit.[97] The Commission is not equipped to evaluate this great variety of prices and terms on which competitors might obtain access to tariffed incumbent LEC offerings.

56. Further, even if we had the resources to consider the multiplicity of rates that might be available to a competitive LEC seeking to offer a given service in a given area, it is not at all clear which of those offerings would form an appropriate basis for determinations regarding the prospects for competition. For example, UNEs are available on a month-to-month basis, but competitive LECs ordering tariffed services on a monthly basis will often forfeit significant discounts available to those willing to commit to longer terms.[98] It is unclear whether, in evaluating a carrier's ability to compete, the Commission would assume a term plan of longer than one month, and if so, what hypothetical term would be appropriate. Similarly, UNE pricing does not vary depending upon the total amount that a competitive LEC spends on UNEs from a particular incumbent, but incumbent LECs generally offer incentive plans that offer greater discounts to competitive LECs willing to commit to maintaining a given quantity of tariffed offerings.[99] Comparisons between UNE rates and the rate for a tariffed alternative would thus require assumptions regarding the degree to which the competitive LEC might also secure such offerings in *other* markets, for the provision of *other* services – an inquiry that would itself be extraordinarily fact-intensive and burdensome for all involved parties.[100] Separately, even if the Commission had the resources to measure

[96] We recognize the competition that exists in the wireless and long distance markets, notwithstanding the unavailability of UNEs and the use of special access. As a result of this competition, and consistent with the *USTA II* court decision, we were able to account for the use of tariffed alternatives and reach an unbundling determination with respect to wireless and long distance carriers without engaging in the nuanced – and unadministrable – impairment inquiry required for the local services market.

[97] *See* 47 C.F.R. § 69.727(a) (providing for Phase 1 relief); 47 C.F.R. § 61.3(o) (defining contract-based tariff); 47 C.F.R. § 61.55 (describing required composition of contract-based tariffs).

[98] *See, e.g.*, SBC Reply at 47-48 (claiming that, in addition to volume discounts, SBC offers discounts of more than 40% for special access purchased under a three-year or five-year term plan).

[99] *See id*.; *see also* Verizon Comments, Attach. C, Declaration of Claire Beth Nogay (Verizon Nogay Decl.) at para. 33 (stating that "[m]ost carrier customers who purchase Special Access services from Verizon take advantage of volume and/or term discounts . . . . [typically amounting to] discounts of 35 to 40 percent off the month-to-month tariffed rates"); Verizon Reply at 88.

[100] As MCI argues:

> The result of pricing flexibility is a multiplicity of rates and other highly relevant terms and conditions that vary not only from incumbent LEC to incumbent LEC, from state to state, and from special access pricing zone to special access pricing zone, but from MSA to MSA as well. Special access pricing zones and MSAs bear little relation to the retail rate zones that constituted the geographic limits of the retail rates. Just lining up the zones to make geographically appropriate comparisons would be extraordinarily challenging. . . . [S]pecial access pricing is notoriously distance sensitive, in ways that frequently bear no relation to retail pricing. . . . Special access pricing is also notoriously subject to term and volume discounts, as well as other use commitments. Here too the Commission would be called upon to make defensible assumptions about the term commitment assumed in the analysis, which would in turn require the Commission to evaluate the nature

the difference between UNE rates and special access rates, the inherent imprecision in such measurements and the extent of the incumbent LECs' control of special access pricing under our pricing flexibility rules likely would breed multiple disputes between carriers as to the accuracy of such measurements – disputes that the Commission, or the courts, likely would be called on to help resolve.

57. The Commission also would need to select a methodology for separating into its constituent parts incumbent LECs' bundled tariffed offerings where only some parts of that bundle potentially could be made available as a UNE. For example, a carrier might negotiate to obtain from an incumbent LEC DS1 end-user channel terminations and OC3 transport as a packaged offering. Assuming *arguendo* that a single accounting methodology could be used to separately account for individual elements in the huge array of possible combinations of packaged products, it is clear that analyzing each and every individual packaged offering to determine whether an element should be unbundled would be infeasible. Separately, we cannot ignore the likelihood that any determination by the Commission after such a fact-intensive inquiry would be subject to appeal. Far from rendering an administrable method of determining access to UNEs, we find that consideration of tariffed offerings would result in excessive delay and extended confusion in the industry.

58. In short, a test that precludes access to UNEs where competitors are deemed able to compete using tariffed incumbent offerings such as special access, and therefore are deemed not impaired, would require the Commission to examine all revenues the competitive LEC might hope to capture using the UNE or special access service at issue in a given market – itself a difficult task;[101] to make determinations regarding the likely volumes and prices given the presence of competition from the incumbent and perhaps from other parties; and to compare those potential revenues against every relevant state and federal tariff and every incumbent LEC retail and wholesale service offered in every market at issue for every element or service, under every available term and volume discounts. Case-by-case assessments based on these factors would be excessively complicated, requiring resources far beyond those available to this Commission, and a test based on such an analysis would therefore be utterly impracticable.[102]

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of the CLEC making use of the service being evaluated. Or, more likely, the Commission would have to analyze multiple scenarios based on different term assumptions. It is far from clear how the Commission would take into account volume commitments.

MCI Comments at 163-64; *see also* AT&T Comments at 115-23; Covad Comments at 81-83, 90; Covad Reply at 31-32; Loop and Transport Coalition Comments at 67-68.

[101] Evaluating the revenues available to requesting carriers for provision of diverse services in diverse markets throughout the nation would be extraordinarily fact-intensive, requiring case-by-case establishment of the appropriate geographic and product markets, assessment of the type and volume of customers in a given location, the presence and relevance of services that are substitutes to and complements for the service the requesting carrier seeks to offer, and, ultimately, how much of a service the requesting carrier might expect to sell, and at what price. As MCI notes, this analysis would require us to assess "every retail rate in every jurisdiction for every service that makes use of high-capacity transmission or loop facilities. Those would include, *inter alia*, enterprise telephone exchange services, access services of every kind for enterprise and mass market customers, and the entire range of data services and telecommunications services used by information service providers. And most of those rates vary in multiple pricing zones in all 50 states and, as the incumbent LECs gain pricing flexibility in a variety of retail markets, may vary from customer to customer as well." MCI Comments at 163. As described above, in the application of our reasonably efficient competitor standard, we consider all the revenue opportunities that competitors can reasonably expect to gain over their facilities by providing all possible services that an entrant could reasonably expect to sell, taking into account relevant limitations. *See supra* para. 24. Because the reasonably efficient competitor standard relies on abstract norms, rather than facts about particular competitors, to determine impairment, our use of the reasonably efficient competitor standard appropriately accounts for revenue opportunities while avoiding the administrability problems we identify here.

[102] As ALTS notes:

4. Risk of Abuse

59. We also find that a rule barring access to UNEs based on the availability of tariffed alternatives creates unacceptable risk of significant abuse by incumbent LECs. In the absence of UNEs, incumbent LECs would, in some metropolitan statistical areas (MSAs), have the ability to set the price of their direct competitors' critical wholesale inputs (*e.g.*, tariffed end-user channel termination and dedicated transport offerings). Specifically, we believe that the freedom associated with the pricing flexibility regime would pose grave risks to competition if we were to foreclose UNE access where tariffed alternatives provide an alternate means of competitive entry.[103] An incumbent in that situation would have substantial incentive to raise prices to levels close to or equal to the associated retail rate, creating a

> Even if one could theoretically posit that competitors could rely on special access to serve some customers in some geographic areas for some period of time without access to network elements, it would be administratively impossible to identify these markets and distinguish them from markets in which competitors could not rely on special access. Such an undertaking would require an examination of the margins in serving a particular customer class in a particular geographic market and comparing those margins with the input prices competitors pay for special access. It would also require an examination of the percentage of overall costs that special access represents for competitors serving different types of customers. Of course this analysis would be hugely complicated by the fact that the input prices themselves vary enormously from significant discounts granted to large purchasers of special access to much more modest discounts granted to smaller purchasers. Moreover, as mentioned, the underlying month-to-month rates to which most discounts apply are subject to unilateral change by the incumbent LECs. In addition, all negotiated discount agreements expire and are subject to renegotiation on likely less favorable terms in the future. Given all of these variables, it is simply inconceivable that even the most talented and dedicated regulator would be able to identify the markets for which special access for some period of time is a viable means of entry.
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> ALTS *et al*. Comments at 33.

[103] In 1999, the Commission established a two-phase pricing flexibility regime expanding incumbent carriers' freedom to structure pricing of their tariffed special access and dedicated transport offerings. *See Access Charge Reform*, CC Docket Nos. 98-157, 96-262, 94-1, CCB/CPD File No. 98-63, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221 (1999) (*Pricing Flexibility Order*), *aff'd*, *WorldCom, Inc. v. FCC*, 238 F.3d 449 (D.C. Cir. 2001). Under this regime, pricing flexibility relief depends on a demonstration that competitors have made sufficient sunk investments in facilities within an MSA as measured by the extent of competitive fiber collocation and use of competitive transport. *See id.* at 14261-65, paras. 75-80. The triggers for various specific varieties of special access differ, but generally satisfaction of the "Phase 2" triggers requires that one or more competitors have collocated and use competitive transport in a predetermined proportion of the LEC's wire centers in the MSA at issue, or in wire centers accounting for a specific portion of the LEC's special access revenues in the MSA. *See id*. at 14296-301, paras. 141-52. An incumbent LEC subject to "Phase 2" pricing flexibility may offer some services free from the Commission's price cap rules and price cap rates, and may change its rates and terms on one day's notice. *See id*. at 14301-03, paras. 153-57. A LEC enjoying "Phase 1" pricing flexibility may offer contract tariffs and volume and term discounts for the services subject to such flexibility on one day's notice, but must maintain their generally available, price-cap constrained tariffed rates. *See id*. at 14232-37, paras. 19-33; *see also* 47 C.F.R. § 69.727(b).

"price squeeze"[104] and foreclosing competition based on use of the tariffed wholesale input.[105] We find that, in addition to the administrability concerns discussed above, this risk renders a bar on UNEs in the presence of tariffed alternatives non-viable.[106] It would be a hideous irony if the incumbent LECs, simply by offering a service, the pricing of which falls largely within their control, could utterly avoid the structure instituted by Congress to, in the words of the Supreme Court, "give aspiring competitors every possible incentive to enter local retail telephone markets, short of confiscating the incumbents' property."[107] This development would put the unbundling determination entirely in the hands of the incumbent LEC, which could exercise its market power to rig competitors' UNE access entitlements and foreclose long-term competition.[108]

[104] A price squeeze exists when (1) a firm operates as a seller of both retail and wholesale offerings, (2) one or more companies relies on the firm's wholesale offerings to compete with the firm on the retail level, and (3) the difference between the retail prices for the service at issue and the firm's price for the wholesale input – if any – is too narrow to allow its retail competitors to cover their costs by providing service in the retail market. *See, e.g.*, *Town of Concord, Mass. v. Boston Edison Co.*, 915 F.2d 17, 18 (1st Cir. 1990); *Cities of Anaheim, Riverside, Banning, Colton, and Azusa, California*, et al., *v. Fed. Energy Regulatory Comm'n*, 941 F.2d 1234, 1237 (D.C. Cir. 1991); *see also Sprint Communications Co. L.P. v. F.C.C.*, 274 F.3d 549, 553-57 (D.C. Cir. 2001) (requiring the FCC to consider the possibility that incumbent LECs might effect a price squeeze involving UNEs, the prices of which are regulated, in part because TELRIC rates, conceivably, are set too high) (citing *Fed. Power Comm'n v. Conway Corp.*, 426 U.S. 271 (1976)). Here, an incumbent LEC might effect a price squeeze by raising the price for the special access service (or other wholesale tariffed offering) to a level that precludes the wholesale customer from using that service to provide service in the retail telecommunications market at a price comparable to that charged by the incumbent or other market participants.

[105] *See* Sprint Comments at 36 (claiming that in "market after market," as soon as the competitive facilities Sprint has constructed "come on line," the incumbent LEC in that region has increased special access prices for those facilities that Sprint has not been able to duplicate and for which there is no competitive supply, thereby frustrating the costs savings for which Sprint's investment in facilities was made); Time Warner Telecom Comments at 15-17 (arguing that it is becoming impossible to compete in the local exchange market using special access due to increasingly onerous incumbent LEC special access terms); ALTS *et al*. Comments at 17-33 (arguing that the FCC's regulatory mechanisms used to guard against price squeezes do not apply to special access offerings); Covad Comments at 86-87; AT&T Comments at 131-34 (stating that "in many cases, the Bells are offering retail prices for finished end-to-end services that are *below* what they charge competitors for access"); MCI Comments at 154-62; MCI Reply at 111-15 (refuting arguments that competitive LECs are able to compete because incumbent LECs give them substantial discounts off tariffed rates because such arguments make the "remarkable assumption that [the incumbent LEC] will continue to charge the tariffed special access rate to customers from whom it is seeking retail business, while giving CLECs a 35-40% discount to serve the same customers"); CompTel/ASCENT Nov. 23, 2004 *Ex Parte* Letter (discussing incumbent LEC special access pricing). While some incumbent LECs have argued that the special access taken at rates offered under multi-year contracts is stable, we nevertheless note that not all carriers purchase under long-term contracts, and the potential remains for a price squeeze in tariffs available to other carriers. *See* BellSouth Reply at 48-50; Letter from Bennett L. Ross, General Counsel-D.C., BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 6-7 (filed Dec. 7, 2004) (BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter).

[106] While sufficient as an independent reason, the risk of abuse clearly is exacerbated by the administrability problems identified in the previous subsection, which could hamper the Commission's ability to fully police special access agreements to ensure that no tariffed offering would result in impairment to competitive carriers.

[107] *Verizon Communications v. FCC*, 535 U.S. 467, 489 (2002).

[108] As an example of the type of discriminatory tariffs about which we are concerned, the Commission recently found that BellSouth's Transport Savings Plan (TSP) discriminates in favor of BellSouth's interexchange affiliate in violation of section 272. *See AT&T Corp. v. BellSouth Telecommunications, Inc.*, FCC 04-278, Memorandum

60. Some incumbent LECs argue that if the Commission's pricing flexibility rules are not sufficient to guard against abuse, the Commission should amend its pricing flexibility rules rather than permit access to UNEs despite the availability of special access.[109] We reject this suggestion. As an initial matter, the risk of abuse is only one of several reasons that we decline to provide unbundled access only where special access is not available. More fundamentally, the Commission's tariffed pricing flexibility goals and the Commission's impairment analysis required by section 251(d)(2) are related to different statutory provisions and serve different policy goals.

61. In the *Pricing Flexibility Order*, the Commission granted incumbent LECs subject to price cap regulation for interstate access services increased flexibility to set special access rates as part of a market-based approach to drive interstate access charges toward the costs of providing these services.[110] A primary mechanism by which the Commission has sought to accomplish this deregulatory aim is granting carriers progressively greater freedom to set their own rates commensurate with the level of competition that has developed. By contrast, under section 251(d)(2), the Commission must analyze whether market entry is uneconomic absent UNEs. Because the "impairment" standard differs from the pricing flexibility triggers, a competitor could well be "impaired" without access to a bottleneck facility even in a jurisdiction in which the incumbent LEC has been granted pricing flexibility.[111] Thus, there exists a potential that even where the incumbent has received pricing flexibility, a competitor might be impaired with respect to a particular UNE (*e.g.*, a DS1 loop), and thus might be subject to an anticompetitive price squeeze in the absence of that UNE.[112]

Opinion and Order (rel. Dec. 9, 2004) (holding that the TSP's volume discounts violate section 272 by favoring low-volume and rapidly growing long distance companies, like BellSouth Long Distance, and disfavoring BellSouth Long Distance's larger competitors, and further holding that the 90% volume commitment requirement contained in BellSouth's TSP tariff violates section 272).

[109] *See, e.g.*, Verizon Reply at 91, 95; SBC Reply at 56.

[110] *See Pricing Flexibility Order*, 14 FCC Rcd 14221.

[111] *Compare, e.g.*, *infra* Part V.C.3 (adopting impairment criteria for dedicated interoffice transport) and *infra* Part VI.C.3 (adopting impairment criteria for high-capacity loops) *with* 47 C.F.R. § 69.709(a) (Phase 1 triggers for dedicated transport), § 69.709(c) (Phase 2 triggers for dedicated transport), § 69.711(a) (Phase 1 triggers for end-user channel terminations), and § 69.711(c) (Phase 2 triggers for end-user channel terminations).

[112] Some incumbent LECs note that, in the *Pricing Flexibility Order*, the Commission found that exclusionary pricing behavior is costly and highly unlikely to succeed in areas subject to Phase 2 pricing flexibility. *See* Verizon Reply at 95; SBC Reply at 52; *see also Pricing Flexibility Order*, 14 FCC Rcd at 14263-64, paras. 79-80. The issue the Commission considered in the *Pricing Flexibility Order* was whether to allow incumbent LECs to provide certain access services to businesses, long distance carriers, and others free from price cap regulation. The Commission's conclusion that pricing flexibility should be extended to incumbent LECs if certain triggers are met was made in a context in which facilities-based competitors could partially rely on their own sunk investment and partially rely on UNEs to provide competitive offerings, which collectively significantly lessens the risk that incumbent LECs could use pricing flexibility to drive competitors from the market such as through targeted rate reductions to end-user customers. *See, e.g.*, *id*. at 14283, para. 112 ("If, however, competitors offer switched access services either entirely over their own facilities or by combining unbundled loops with their own switching and transport, this indicates the type of irreversible investment in facilities that warrants Phase I pricing flexibility for these services."); *id.* at 14301-02, para. 155 (reasoning that Phase 2 relief is appropriate in part because special access services generally are purchased by interexchange carriers who can find competitors to supply wholesale inputs for interexchange services where available, but not discussing competitive LECs' use of special access). The Commission in the *Pricing Flexibility Order* specifically declined to link the pricing flexibility triggers to any finding that incumbent LECs no longer have market power in the provision of services at issue. *See id*. at 14300, para. 151; *see also* Time Warner Telecom Comments at 10-11.

62. We do not believe that the Act's general provisions designed to guard against anticompetitive behavior are sufficient to protect competitive carriers from potential abuses of special access pricing on a timely basis.[113] *First*, while the Commission has authority to suspend or reject special access tariffs prior to their going into effect, this is not an effective tool to prevent the type of anticompetitive special access pricing discussed herein because the time provided for tariff review is likely insufficient for conducting a price squeeze analysis.[114] *Second*, although the Commission can and will take enforcement action against unlawful special access pricing within the applicable five-month statutory deadline,[115] including, where appropriate, granting injunctive relief and the award of damages to the complainant in a complaint proceeding, enforcement actions take place after a competitor has already suffered harm due to violation of the Commission's rules. We therefore are concerned that, as a response to a possible anticompetitive price squeeze in a market that already has witnessed the exit of many competitors, such relief would not be sufficient to prevent harm in the first instance to competitors relying on a wholesale input priced to effectuate a price squeeze. *Third*, and similarly, while a price squeeze would, in theory, justify the reimposition of UNE access requirements, such a renewal of the incumbent LEC's unbundling obligations would likely occur only following a proceeding before either this Commission or the relevant state commission. In the time that it likely would take to conclude such a proceeding, there is an unacceptable risk that competitors might be harmed in a way that would adversely affect competition, including possibly being forced to exit the market. *Fourth*, whereas incumbent LECs by definition face *some* facilities-based competition in MSAs subject to phase 2 pricing flexibility, these levels of competition are not necessarily sufficient to support a finding of non-impairment.[116] The pricing flexibility triggers require only the presence of a single competitive transport provider, and do not require the presence of any facilities-based provider of channel terminations, before a price cap LEC is granted pricing flexibility.[117] As noted above, the triggers sufficient to give an incumbent LEC pricing flexibility do not necessarily demonstrate that competitive deployment is sufficiently extensive that (taking into account actual competition and inferences concerning potential competition) unbundling is no longer required under section 251(c)(3) for each and every network element. *Fifth*, it also appears that the presence of facilities-based competitors relying upon UNEs may play a critical role in constraining special access pricing. For example, as discussed below in greater detail, Time Warner Telecom argues that "the availability of UNEs has constrained the incumbents' exercise of their power to increase price and degrade the quality of special access."[118]

63. In summary, a rule that foreclosed access to all UNEs wherever competitors had access to tariffed alternatives would diminish the facilities-based competition that is the most effective discipline to anticompetitive price squeezes. Such a rule would allow an unacceptable level of incumbent LEC abuse because incumbent carriers could strategically manipulate the price of their direct competitors' wholesale inputs to prevent competition in the downstream retail market. Moreover, we believe that the uncertainty

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[113] We limit our analysis here to the prospects that existing market, tariff review, or enforcement mechanisms by themselves are not sufficient to adequately reduce the risk to competition of price squeezes in violation of the Commission's rules, at least not sufficiently quickly to prevent harm to competition due to such abuse. In this proceeding, we expressly decline to address more broadly the merits of our pricing flexibility regime or the competitive characteristics of the special access market.

[114] Incumbent LECs may amend their tariffs on either 15 days or 7 days notice, depending on the type of changes proposed. *See* 47 C.F.R. § 61.58(a)(2) (providing for 15 days notice for rate increases or changes to tariff terms or conditions, and providing for 7 days notice for rate decreases).

[115] *See AT&T Corp. v. BellSouth Telecommunications, Inc.*, FCC 04-278, Memorandum Opinion and Order (rel. Dec. 9, 2004), discussed *supra* at note Error: Reference source not found.

[116] We note that the Commission's authority to adopt deregulatory pricing flexibility rules is not limited to those instances in which it also finds that there is no impairment related to such facilities.

[117] *See* 47 C.F.R. § 69.711(c).

[118] Time Warner Telecom Comments at 18; *see also infra* para. 65.

and risk associated with even the possibility of such abuse would chill competitive entry, because competitive carriers might well be averse to initiating service when they know that the incumbent could – on one day's notice, without Commission approval, and with limited market-based discipline – render competition untenable by raising tariffed prices.[119] Such uncertainty is exceedingly detrimental to long-term competition, and we decline to interpret our impairment standard to require the instability that would characterize such a regime.

5. Relevance of Current Use of Special Access

64. Finally, contrary to the arguments of some parties, we do not believe that a carrier's current use of tariffed incumbent LEC offerings to serve the local exchange markets constitutes dispositive evidence that the carrier is able to compete – and thus not impaired – without access to unbundled elements.[120] As an initial matter, we note that the incumbent LECs' argument rests on the flawed assumption that any carrier using special access is competing successfully in the local exchange markets. This is not so. First, as stated above, the majority of special access arrangements are used to provide service in the mobile wireless and long distance markets.[121] These arrangements clearly are not pertinent to the state of

[119] *See* MCI Comments at 165-67 (arguing that even if it were administrable for the Commission to factor special access offerings into its impairment analysis, incumbent LECs could on short notice change their "special access rates and promptly render the unbundling determination obsolete"); CompTel/ASCENT Comments at 23-24.

[120] *See, e.g.*, SBC Comments at 90 ("CLECs have already shown by their wide reliance on special access that they can compete profitably when they use special access as an input."); SBC Reply at 38-40; Verizon Comments at 54-62; BellSouth Reply at 46-48; Qwest Comments at 29, 65. SBC claims that AT&T has "previously admitted as much as *98%* of the approximately 40,000 [DS1 loops] it obtains from [incumbent LECs] to provide last-mile connectivity to customers – customers to whom it provides local service – are purchased as special access, not as UNEs." SBC Reply at 38 (emphasis in original) (citing AT&T presentation, Transport UNEs are a Prerequisite for the Development of Facilities-Based Local Competition at 10 (Oct. 7, 2002), *in* Letter from Joan Marsh, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, Docket Nos. 01-338, 96-98 and 98-147 (filed Oct. 8, 2002)). We disagree with this characterization of AT&T's statements. SBC bases its claim on an AT&T filing pre-dating the *Triennial Review Order* in which AT&T appears to have been making a limited claim primarily regarding EELs, which incorporate loops and which carriers may use to provide local exchange service. *See id*. (stating that of the 40,000 AT&T local customers that require DS1-level service, 65% require EELs to carry traffic to and from AT&T's collocation cages). In the *Triennial Review Order*, the Commission determined that EELs must be made available on an unbundled basis only if the requesting carrier satisfies local service eligibility criteria – a holding the D.C. Circuit affirmed. *See Triennial Review Order*, 18 FCC Rcd at 17353-61, paras. 595-611, *aff'd by USTA II*, 359 F.3d at 592-93. AT&T leases far more than 40,000 DS1 loops from incumbent LECs, and, in the filing cited by SBC, AT&T did not claim to use the vast majority of its leased DS1 loops for anything other than providing exclusively interexchange services. *See, e.g.*, BOC Dec. 13, 2004 *Ex Parte* Letter, Attachs. 1 & 2 (showing that the top three competitive LECs – of which AT&T holds the largest market share – collectively purchase over 800,000 DS1 loops from BellSouth, SBC, Verizon, and Qwest).

[121] *See, e.g.*, Letter from Melissa E. Newman, Vice President-Federal Regulatory, Qwest, and Andrew D. Crain, Associate General Counsel, Qwest, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 8, 2004) (Qwest Dec. 8, 2004 Newman/Crain *Ex Parte* Letter) (claiming that "the vast majority of DS1 circuits that have been purchased from Qwest by wireline competitors other than the largest [interexchange carriers] have been purchased as UNEs, rather than special access circuits. Indeed, . . . more than two-thirds of the DS1 loops purchased from Qwest by these carriers have been purchased as UNEs. These carriers account for only about 20% of Qwest's existing base of DS1 special access channel terminations. In contrast, all of the DS1 loops obtained by CMRS providers and the largest interexchange carriers were purchased as special access circuits, rather than UNEs."). The incumbent LECs collectively provide approximately 73% of their DS1 special access channel terminations, and approximately 66% of their DS3 special access channel terminations, to AT&T, MCI and Sprint as a percentage of special access channel terminations provided to all wireline carriers. *See* BOC Dec. 13, 2004 *Ex Parte* Letter, Attachs. 1 & 2. Long distance carriers other than AT&T, MCI, and Sprint collectively account for a significant share of the interexchange services market. *See* Industry Analysis and

the local exchange market,[122] and, in any event, we have above foreclosed UNE access for the exclusive provision of mobile wireless and long distance services. Even in the local exchange market, however, a carrier's use of tariffed incumbent LEC offerings does not conclusively demonstrate that it is doing so successfully, or could continue to do so.[123] Our record indicates that, unlike in the mobile wireless and long distance services markets, carriers generally make only limited use of special access offerings to provide service in the local exchange services market.[124] To the extent competitive LECs are utilizing special access, many carriers may be using such services rather than UNEs, not because special access is a wholesale input that enables competitive LECs to economically compete long-term, but rather because, for various reasons, use of special access has been a necessary precondition to eventual UNE-based competition.[125] For example, it appears that some carriers signed up customers only to learn that UNEs were not available pursuant to "no facilities" policies,[126] while others adopted a strategy initially relying

Technology Division, Wireline Competition Bureau, *Statistics of the Long Distance Telecommunications Industry*, Table 1 (May 2003) (reporting that, in 2001, long distance carriers other than AT&T, MCI and Sprint generated approximately 30% of the total interLATA toll revenues reported by carriers other than local exchange carriers).

[122] *See, e.g.*, Letter from Daniel Wheeler, General Counsel, NTS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 1-2 (filed Nov. 19, 2004).

[123] *See, e.g.*, Loop and Transport Coalition Comments, Declaration of Wil Tirado (XO Tirado Decl.) at paras. 43-44 (claiming that, while XO sometimes uses special access to serve local end-user customers, it primarily relies on UNEs when leasing incumbent LEC facilities, and if it were required to convert all those UNEs to special access, XO would no longer be able to compete for DS1- and DS3-based services).

[124] XO, the nation's largest facilities-based competitive LEC, reports that of the DS1 and DS3 circuits it leases for which UNEs are available under the Commission's rules, more than 75% currently are provisioned as UNEs or are subject either to a pending request that the incumbent LEC convert the circuit to a UNE or a pending request that the incumbent LEC disconnect the circuit. *See* XO Tirado Decl. at para. 44; *see also* Loop and Transport Coalition Comments, Declaration of Dan J. Wigger (ATI Wigger Decl.) at paras. 8, 52 (stating that only 5% of the DS1 circuits purchased by Advanced Telecom from incumbent LECs are special access); Loop and Transport Coalition Comments, Declaration of Warren Brasselle (Talk America Brasselle Decl.) at para. 15 ("We do not have a single T-1 on Special Access that serves our end users. Similarly, less than 10% of our DS-3 circuits have been purchased as Special Access."); Loop and Transport Coalition Reply at 44; *supra* note Error: Reference source not found. We therefore discount the relevance of incumbent LECs' claims that a high percentage of their high-capacity loops are provided to other carriers as special access rather than UNEs. *See, e.g.*, BOC UNE Fact Report 2004 at III-39 (reporting that most – and in the case of Verizon, nearly all – DS1and DS3 loops purchased from Verizon, SBC and BellSouth by other carriers are purchased as special access rather than UNEs). Moreover, we note that the relatively low percentage of UNEs used to provide telecommunications services may support that competition has not fully developed in the local exchange service market, where carriers generally substantially rely on UNEs, as compared with the long distance service and mobile wireless service markets, where carriers substantially rely on special access. Most carriers that obtain wholesale inputs from an incumbent LEC obtain those facilities almost exclusively either as UNEs or as special access. *See* BOC Dec. 13, 2004 *Ex Parte* Letter, Attachs. 1 & 2 (revealing that the average wireline carrier that obtains DS1or DS3 loops from an incumbent LEC obtains such loops exclusively as special access or exclusively as UNEs approximately 95% of the time).

[125] This conclusion supports our decision to adopt the reasonably efficient competitor standard in markets, unlike the mobile wireless services and long distance markets, that we have not determined to be sufficiently competitive. The record does not support the broad inferences of robust local exchange competition urged by the incumbent LECs. Rather, the record is decidedly mixed on whether particular competitive LECs that have relied on special access have been able economically to enter all markets. Furthermore, given the absence of widespread competition in the local exchange market, there is insufficient record evidence to conclude that special access-based competition, to the extent it exists, is sustainable, enduring competition.

[126] *See* MCI Comments at 167-68; Loop and Transport Coalition Comments at 56; Loop and Transport Coalition Reply at 45-48; *id*. at 46 (stating that from January 1, 2004 through August 9, 2004, 47% of Broadview Networks,

on special access and experienced delays or other difficulties in converting special access to UNEs.[127] The record also reveals that incumbent LECs sometimes do not permit competitors to obtain new circuits as UNEs, and only permit the competitive LEC to convert facilities obtained as special access to UNEs after a "holding period" of one to several months.[128] Moreover, incumbent LECs have priced special access tariffs at rates that might be supra-competitive but nevertheless offer substantial term and volume discounts, prompting competitive LECs to rely on these offerings for longer than they would otherwise.[129] Indeed, the very uncertainty that has characterized our UNE rules since the Act's passage may also have incented competitive carriers to rely on more stable special access arrangements, notwithstanding the ultimate inviability of business models based on use of such arrangements, until UNE access was more secure. In short, in many cases, it appears that carriers expected to transition to UNEs – and pursued business models relying on this eventuality – but committed to long-term special

Inc.'s UNE orders were denied due to "no facilities"); McLeod Reply at 31. In the *Triennial Review Order*, the Commission determined that incumbent LECs, in response to an order for an unbundled network element, must make routine network modifications to facilitate the provision of that element. *See Triennial Review Order*, 18 FCC Rcd 17371-78, paras. 630-41. Routine network modifications are those incumbent LECs regularly undertake for their own customers, and include such things as rearranging or splicing cable, adding a doubler or repeater, adding a line card, and deploying a new multiplexer or reconfiguring an existing multiplexer, but do not include trenching or placing new cables for a requesting carrier. *See id*. at 17371-75, paras. 632-37.

[127] *See, e.g.*, Letter from Brad E. Mutschelknaus, Counsel for XO, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 3-5 (filed Dec. 7, 2004) (XO Dec. 7, 2004 *Ex Parte* Letter); Loop and Transport Coalition Comments at 56-59 (claiming that incumbent LECs have been have been "intransigent" in permitting competitive LECs to order certain combinations as UNEs, have hampered efforts to order UNEs for commingled services, have been "dilatory" in converting facilities that initially were acquired as special access to UNEs, and have imposed excessive charges on such conversions); Sprint Reply at 19-20. The incumbent LECs have disputed claims like those raised by their competitors. *See* Letter from Bennett L. Ross, General Counsel-D.C., BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 8, 2004) (responding to allegations raised by XO).

[128] *See* Verizon Reply at 85; Loop and Transport Coalition Comments at 57-58. Mpower Communications Corp. (Mpower) alleges that the only reason it ever orders facilities from Verizon as special access rather than UNEs is that Verizon sometimes imposes large, nonrecurring charges on UNEs that are not imposed on special access. Letter from Eric J. Branfman, Counsel for Mpower, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 8, 2004) (Mpower Dec. 8, 2004 *Ex Parte* Letter). .

[129] *See, e.g.*, Loop and Transport Coalition Reply at 48-50 (claiming that although XO is entitled to convert certain DS1s from special access to EELs, it continues to use special access while it contests conversion charges that would make the EELs as costly as special access); XO Dec. 7, 2004 *Ex Parte* Letter; *see also* AT&T Comments at 100 (arguing that Verizon's special access rates for DS1 and DS3 loops are sometimes in excess of retail rates of Verizon's private line service); Time Warner Telecom Comments at 13-14 ("The incumbent LECs often offer volume and term discounts for circuits in outlying areas where there is no competition only if a customer agrees to purchase special access from the incumbent LECs in the downtown areas where [Time Warner Telecom] and other CLECs operate," thereby creating disincentives for competitive investment in facilities in areas where deployment otherwise would be efficient); CompTel/ASCENT Comments at 19 (arguing that even if a competitive carrier can justify building its own facilities in a portion of an incumbent LEC's region, the competitive LEC often cannot self-deploy facilities for its own traffic without risking loss of substantial special access volume discounts on a region-wide basis); Loop and Transport Coalition Comments at 60 (claiming that the barriers incumbent LECs have created in ordering UNEs has lead some competitive LECs to obtain critical facilities through "long term volume and term special access agreements," the termination provisions of which in practice prevent use of UNEs); Verizon Reply at 88 (claiming that tariffed rates are discounted from 5% to 40% when competitors enter into volume and term discount ranging from 1 to 7 years, depending on the geographic area, and that carriers typically purchase special access at rates that typically are discounted from 35% to 40% off the base rates). We agree with BellSouth and others that multi-year contracts and volume discounts are not necessarily by themselves anticompetitive. *See* BellSouth Reply at 53-58 (arguing that multi-year contracts are

access contracts in the interim.[130] In these cases, a carrier's use of a tariffed offering may not indicate that competition without UNEs is possible in the long term, but only that the necessary initial commitment to tariffed offerings on which ultimate UNE-based competition was predicated has yet to expire.

65. Second, even assuming that some competitive LECs are providing services profitably using special access, the record indicates that the availability of UNEs is itself a check on special access pricing, and that elimination of UNE availability to customers using tariffed alternatives might preclude competition using those tariffed services going forward. Specifically, without recourse to TELRIC-priced UNEs, carriers using special access could lose substantial bargaining power when negotiating special access rates.[131] Time Warner Telecom, which relies principally on special access services where it does not self-deploy, states that "UNEs have unquestionably had a constraining influence on the incumbents' exercise of their power over special access price and service quality."[132] A rule that precluded UNE access in cases where carriers currently compete using tariffed alternatives would presume a static market, in which the elimination of UNEs had no effect on special access pricing. The record, however, reveals a dynamic market, in which elimination of UNEs would significantly risk increased special access pricing, undermining or destroying the ability to compete using tariffed alternatives.[133] The incumbent LECs' position thus would require continued review of special access pricing on a case-by-case basis – review that would necessitate investigation not only of the applicable

common and legitimate in the telecommunications industry); *see also* Verizon Kahn/Tardiff Reply Decl. at para. 20; *see also AT&T Corp. v. BellSouth Telecommunications, Inc.*, FCC 04-278, Memorandum Opinion and Order, para. 22 (rel. Dec. 9, 2004) (stating that the Commission generally views tariffed volume discount plans favorably in areas where volume and cost have a fairly direct, inverse relationship). As another example of the type of issue about which carriers have complained, Integra Telecom claims that from 1996 until January 2002, Verizon's billing systems could not bill for UNEs so Verizon treated UNE purchases on its bills as special access subject to a discount to approximate UNE rates. *See* Integra Telecom Comments at 2. Some incumbent LECs argue that if competitive LECs inappropriately have been denied UNEs and forced to rely on special access, the Commission should address that issue through enforcement mechanisms rather than by ordering unbundling. *See* Letter from Andrew D. Crain, Associate General Counsel, Qwest, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2 (filed Nov. 17, 2004); *see also* BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter at 6. In the context of the paragraph above and the one that follows, where we are raising an evidentiary issue and are not making conclusive findings regarding the extent to which carriers have been able to rely on special access economically to enter telecommunications markets, such a suggestion is beside the point. In any event, as we explain in the text, we do not believe that our enforcement processes regarding special access pricing could or should effectively replace our unbundling regime.

[130] *See* XO Dec. 7, 2004 *Ex Parte* Letter at 1-2; Loop and Transport Coalition Comments at 57; *cf. also id*. at 51 ("The business need to ensure that [competitive LECs] do not lose a customer while waiting for Verizon to provision what section 251 requires may justify foregoing one's statutory and regulatory rights, at least temporarily.").

[131] *See, e.g.*, BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter at 8 ("Where UNEs are available based on the Commission's impairment test, carriers could choose to order UNEs to compete for customers currently served over special access arrangements. Where this competition occurs, it is very likely that the ILECs will continue offering advantageous pricing arrangements in order to avoid handicapping their special access customers relative to UNE providers."); PAETEC Comments at 9 (urging the Commission "to retain high capacity loops as UNEs as an effective check on pricing of special access").

[132] Time Warner Telecom Comments at 15.

[133] *See* AT&T Comments at 122-23 (claiming that the availability of UNEs has constrained incumbent LECs' ability to raise special access prices and citing recent significant increases in special access prices following the *USTA II* decision vacating the Commission's UNE rules); ALTS *et al*. Comments at 17, 29; MCI Reply at 111; Loop and Transport Coalition Comments at 51-52; XO Tirado Decl. at para. 50.

tariffed rate but also of the relevant retail rates in the particular jurisdiction in which a particular competitor operates.[134] Moreover, this approach would call into question the availability of UNEs in any given situation at any given time, depending on the prices and terms on which tariffed alternatives were available, and the relevant retail rates, at that time. Thus, a rule barring access whenever competitors could operate using tariffed alternatives would destroy the market certainty necessary for sustainable, facilities-based competition using either UNEs *or* special access, thereby undermining the pro-competitive goals of the Act.[135] For these reasons, even in cases where carriers currently compete using special access, the rule urged by the incumbent LECs would raise insurmountable hurdles regarding administrability and would court the risk of incumbent abuse described above.

V. DEDICATED INTEROFFICE TRANSPORT

A. Summary

66. As explained below, we tailor our transport unbundling requirements narrowly to apply only where deployment of these facilities is not economic. Specifically, we adopt a test to identify three tiers of wire centers based on the number of business lines served and the presence of fiber-based collocations, which we use to assess economic conditions at wire centers. After classifying wire centers into three tiers, we then establish rules to evaluate impairment on transport routes connecting wire centers, according to tier, enabling us to assess impairment for DS1, DS3, and dark fiber transport. Based on the evidence in the record, we make the following determinations:

- *DS1 Transport*. We find that competing carriers are impaired without access to DS1 transport on all routes for which at least one end-point of the route is a wire center containing fewer than 38,000 business lines and fewer than four fiber-based collocators. Thus, competing carriers are not impaired without access to DS1 transport on routes connecting a pair of wire centers, each of which contains at least four fiber-based collocators *or* 38,000 or more business lines.

- *DS3 Transport*. We find that competing carriers are impaired without access to DS3 transport on all routes for which at least one end-point of the route is a wire center containing fewer than 24,000 business lines and fewer than three fiber-based collocators. Thus, competing carriers are not impaired without access to DS3 transport on routes connecting a pair of wire centers, each of which contains at least three fiber-based collocators *or* at least 24,000 business lines.

- *Dark Fiber Transport.* Like DS3 transport, we find that competing carriers are impaired without access to dark fiber transport on all routes for which at least one end-point of the route is a wire center containing fewer than 24,000 business lines and fewer than three fiber-based collocators. Thus, competing carriers are not impaired without access to dark fiber transport on routes connecting a pair of wire centers, each of which contains at least three fiber-based collocators *or* at least 24,000 business lines.

- *Entrance Facilities*. We find that competing carriers are not impaired without access to entrance facilities.

[134] As we explained above, we do not analyze impairment on a competitor-specific basis. *See, e.g.*, Part IV.A.

[135] *See* CompTel/ASCENT Comments at 23-24 (arguing that competitive carriers will not enter the market initially, nor be able to attract sufficient capital, if incumbent LECs are able to raise the price of essential inputs on short notice, or if impairment with respect to particular network elements fluctuates with special access pricing changes).

B. Background

67. Dedicated interoffice transmission facilities (dedicated transport or transport) are facilities dedicated to a particular competitive carrier that the carrier uses for transmission between or among incumbent LEC central offices and tandem offices, and to connect its local network to the incumbent LEC's network. The definition of dedicated transport adopted by the Commission in the *Triennial Review Order* was largely similar to that adopted in the Commission's prior orders. However, in the *Triennial Review Order*, the Commission narrowed the definition by limiting transport to transmission facilities between incumbent LEC wire centers or switches and by removing from the definition transmission between incumbent LEC wire centers or switches and those owned by requesting telecommunications carriers.[1] Although the *Triennial Review Order* required substantial transport unbundling nationwide, the Commission's unbundling analysis established mechanisms for state commissions to remove the unbundling obligation on a particular route if certain indicia of alternative transport deployment were evident.[2]

68. The D.C. Circuit in *USTA II* remanded the transport analysis the Commission conducted in the *Triennial Review Order* because, due to the improper delegation to state commissions vacated by the court, the Commission's findings of nationwide impairment for DS1, DS3, and dark fiber were inconsistent with the Commission's "frank[] acknowledg[ment] that competitive alternatives are available 'in some locations.'"[3] Moreover, the *USTA II* court faulted the Commission for not adequately considering where competitors could potentially deploy their own transport facilities.[4] In the *Interim Order and NPRM*, the Commission sought comment on how to analyze impairment for transport in light of the D.C. Circuit's admonitions. Importantly, the Commission sought comment on whether it should refine its unbundling analysis for transport by applying a more nuanced analysis based on service, geographic, or capacity distinctions.[5]

C. Impairment Analysis – Interoffice Transport

1. General Operational and Economic Characteristics of Transport

69. *Operational Characteristics*. Competing carriers generally use unbundled interoffice transport as a means to aggregate end-user traffic.[6] They do so by using dedicated transport to carry traffic from their end users' loops, which generally terminate at incumbent LEC wire centers, to a point of aggregation, permitting service to customers served via multiple incumbent LEC offices without requiring the competitor to deploy or otherwise obtain its own transport facilities to those offices. Sometimes competing carriers aggregate traffic on a local fiber-optic transport ring that carries traffic to and from the competitor's switch or other equipment.[7] Often, several points on such a ring are collocation

[1] *Triennial Review Order*, 18 FCC Rcd at 17202-06, paras. 365-69.

[2] *Id*. at 17213-36, paras. 381-416.

[3] *USTA II*, 359 F.3d at 574.

[4] *Id*. at 574-75.

[5] *Interim Order and NPRM*, 19 FCC Rcd at 16788-90, paras. 8-11.

[6] *See Triennial Review Order*, 18 FCC Rcd at 17206-07, para. 370.

[7] A fiber ring generally passes through several incumbent LEC wire centers, as well as other points of traffic aggregation, but does not duplicate the hub and spoke architecture of the incumbent LEC's network. *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17012-13, 17206-07, paras. 45, 370; BOC UNE Fact Report 2004 at III-6,

arrangements in incumbent LEC wire centers where the competitor may obtain unbundled loops to reach end-user customers, while other points may include typical traffic aggregation points such as interexchange carrier points of presence (POPs) or carrier collocation hotels.[8] In other cases, a competitive LEC might, from a single incumbent LEC office (often the location of the incumbent LEC's access tandem switch), aggregate traffic from multiple incumbent LEC offices, obtaining both unbundled loops and interoffice dedicated transport to enable this aggregation.

70. A significant proportion of competitive transport facilities are located in dense business districts. Although these areas represent a very small number of incumbent LEC wire centers, they comprise an enormous proportion of the telecommunications revenues available. Indeed, Verizon claims that demand for high-capacity special access circuits is "most heavily concentrated" in its top 20 MSAs and that concentration represents "fewer than 8 percent of [Verizon's] wire centers.[9] SBC agrees that demand for high-capacity circuits is most concentrated, and thus, so is competitive facilities deployment, in major metropolitan areas.[10] Many competitive LECs, too, agree that competitive transport deployment is apparent "only on the very densest traffic routes."[11] Similarly, the state record evidence that was compiled during state proceedings intended to implement our *Triennial Review Order*, albeit focused on the particular review set forth in that *Order*, show that the existence of multiple competitive transport networks is limited to dense urban centers.[12] Further, the BOCs all have submitted maps indicating where competitive facilities are believed to exist – indicating that competitive fiber facilities are located primarily in locations with dense business traffic demands.[13] Finally, as discussed in greater detail

III-8 through III-9 & Table 6; Loop and Transport Coalition Comments, Declaration of Mike Duke (KMC Duke Decl.) at para. 7; XO Tirado Decl. at paras. 10-14; ATX, Blackfoot, *et al*. Comments, Attach. A, Declaration of Mark A. Jenn (TDS Metrocom Jenn Decl.) at para. 6; Integra Comments at 25-26.

[8] *See* MCI Comments at 144; BOC UNE Fact Report 2004 at III-8 through III-9; KMC Duke Decl. at paras. 7, 13; XO Tirado Decl. at paras. 10-14.; Verizon Reply at 47; Verizon Reply, Attach. D, Reply Declaration of Robert F. Pilgrim (Verizon Pilgrim Reply Decl.) at paras. 4-5.

[9] Verizon Comments at 36; *see also* BOC UNE Fact Report 2004 at III-8, Table 5. While we discount the absolute parallel that Verizon attempts to draw between special access services and high-capacity unbundled elements, we nevertheless find it very persuasive that demand for similar services is so highly concentrated.

[10] *See* Letter from Christopher M. Heimann, General Attorney, SBC, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, 96-96, 98-147 at 2 (filed Aug. 18, 2004) (SBC Aug. 18, 2004 *Ex Parte* Letter); *see also* BOC UNE Fact Report 2004 at III-8 & Table 5.

[11] Loop and Transport Coalition Comments at 82.

[12] *See, e.g.*, SBC Comments, Attach. A (summaries of state proceedings implementing the *Triennial Review Order*); *see generally* Gary Ball *et al.*, QSI Consulting, Inc., Analysis of State Specific Loops and Transport Data: Impairment Analysis (QSI Study) *in* Letter from Thomas Cohen, Counsel for AT&T, Blackfoot Telecommunications Group, *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Oct. 5, 2004).

[13] Qwest Comments, Attach. 4; SBC Comments, Attach. C; Verizon Comments, Tab H; Letter from Glenn T. Reynolds, Vice President-Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 1, 2004) (BellSouth Oct. 1, 2004 Reynolds *Ex Parte* Letter); Letter from Dee May, Vice President-Federal Regulatory, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed June 24, 2004) (Verizon June 24, 2004 *Ex Parte* Letter); Letter from Cronan O'Connell, Vice President-Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Aug. 20, 2004).

below, the wire center data provided by the BOCs confirms that a very significant proportion of business lines are served by a relatively small number of wire centers.[14]

71. *Economic Characteristics*. The economics of transport deployment are determined by traffic volume, distance, and location.[15] While the cost of deployment increases with the length of a transport segment, as described below, the revenues generated increase with the amount of traffic that is carried on a particular transport route. Thus, when deciding whether and where to build their own facilities, competitive LECs look first at the shortest routes that have the greatest potential for traffic aggregation.[16] Furthermore, the revenues generated by dedicated transport do not depend on maintaining a single customer, or even several customers, but rather on maintaining a certain level of traffic on a route. Compared to loops, which serve individual customers, dedicated transport carries much more traffic and has much greater potential for added future traffic, as competitive LECs continue to aggregate traffic on a route. For these reasons, competitive LECs can take advantage of economies of scale, and can also make decisions about whether to self-deploy transport based not only on actual traffic, but on potential traffic as well.

72. The deployment of transport facilities involves substantial fixed and sunk costs. Once a carrier deploys fiber on a route, that fiber cannot be moved to another location.[17] At the same time, transport facilities are not dedicated to a single customer, as described above, but rather carry numerous customers' traffic. A competitive LEC therefore does not lose the sunk costs it has incurred to deploy transport when it loses a single customer, as it may in the case of a loop, if it does not acquire a new customer requesting similar services in the same location. With transport facilities, competitive LECs have some flexibility to replace a decrease in traffic. Thus, while there are significant sunk costs associated with transport deployment, there are greater opportunities for recovering sunk costs with transport than with loop facilities.[18]

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[14] Letter from Cronan O'Connell, Vice President-Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 7, 2004) (Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter); Letter from Edwin J. Shimizu, Director-Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 7, 2004) (Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter); Letter from Bennett L. Ross, General Counsel-D.C., BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 7, 2004) (BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter); Letter from Brian J. Benison, Associate Director-Federal Regulatory, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 7, 2004) (SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter); Letter from Glenn T. Reynolds, Vice President-Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 10, 2004) (BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter) (correcting the fiber-based collocation count for two wire centers); Letter from Brian J. Benison, Associate Director-Federal Regulatory, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 10, 2004) (SBC Dec. 10, 2004 Benison *Ex Parte* Letter) (supplying data for SBC operations in Connecticut).

[15] AT&T Comments at 47.

[16] *Id*. at 47-48, 52. For this reason, competitive LECs tend to self-deploy entrance facilities more frequently than transport routes between incumbent LEC offices. *Id.* at 52. For the same reason, entrance facilities also offer a greater opportunity to recover sunk costs than transport between incumbent LEC offices. *Id.* at 43.

[17] ALTS *et al*. Comments, App. A, Declaration of Rainer Gawlick (Lightship Gawlick Decl.) at para. 4 ("Transport costs are sunk costs since the facility cannot be moved to another location should we decide to exit a market or reconfigure our network.")

[18] Competitive LECs claim that even in the same location, the salvage potential for deployed fiber is limited when a deploying competitor abandons a particular route. *See* AT&T Comments at 43 (stating that competitive LEC fiber deployed between incumbent LEC offices has no re-use value to other competitors, so sunk costs are lost if

73. The costs associated with competitive deployment of dedicated transport vary widely among geographic areas – costs are generally very high per unit of distance in urban areas, especially for underground fiber, but are significantly lower per unit of distance for aerial or buried cable in low-density areas.[19] Rural areas, however, are characterized by long distances and lower demand concentration (*i.e.*, lower potential revenues), making duplication of the incumbent LEC's network less likely.[20]

74. *Specific Deployment Costs*. Numerous carriers have submitted a broad and sometimes conflicting set of cost data, which demonstrate the high variability of the cost of deployment.[21] These costs, which can vary significantly from one route to another and from one carrier to the next, are too numerous and too variable to allow us to make any national conclusions, much less to construct any cost models to assess impairment. Specifically, our approach focuses on actual competitive deployment, which signifies that actual and potential revenues justified the underlying costs. Thus, our impairment analysis of transport considers deployment costs implicitly. Nevertheless, we describe below several of the primary cost variables that parties have described in the record.

75. The costs associated with deployment of dedicated transport include the costs of collocation, the costs of equipment and materials (both the fiber itself and the electronics required to "light" the fiber), and the costs of physical deployment of the fiber.[22] Carriers deploying fiber must also obtain rights-of-way from municipalities, which can create additional costs and delays.[23] As we noted in the *Triennial Review Order*, competitive LECs are sometimes able to avoid the costs of collocation when deploying their own transport facilities if wholesale transport providers are able to perform the function of loop aggregation.[24] The record indicates that where it is necessary, collocation costs associated with the self-deployment of dedicated transport can be as much as $350,000 to $450,000 where a competitive LEC already has a switch deployed in a market, and potentially even higher when a competitive LEC is establishing a presence in an entirely new market.[25] Even where a competitive LEC already has established a collocation site in an incumbent LEC central office, it often must augment its collocation site – as well as its own POP – to accommodate increased power and space requirements.[26]

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the competitive LEC abandons that particular route). *But see* Qwest Reply at 24-25 (suggesting a greater salvage potential for transport facilities deployed by competitive LECs).

[19] Qwest Reply at 11, 35; AT&T Comments, Declaration of John D'Apolito and Milford Stanley (AT&T D'Apolito/Stanley Decl.) at para. 16. Furthermore, entry barriers can differ from city to city, within the same city, or between a city and its suburbs because of differences in municipal right-of-way and permitting policies, as well as conduit availability. ALTS *et al*. Comments at 65; John W. Mayo, *et al.*, Economic Impairment Analysis at 40 (Oct. 4, 2004) (Mayo/MiCRA/Bates White Study), *in* Letter from Thomas Cohen, Counsel for AT&T, Blackfoot Telecommunications Group, *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Oct. 5, 2004).

[20] Alpheus Reply, Joint Reply Declaration of Eleuterio (Teo) Galvan Jr. and Francisco Maella (Alpheus Galvan/Maella Reply Decl.) at paras. 32-33.

[21] *See infra* paras. 75-77.

[22] *Triennial Review Order*, 18 FCC Rcd at 17207-08, para. 371.

[23] *Id*. at 17206-07, para. 370; Loop-Transport CLEC Coalition Comments at 80 (indicating that it usually takes six to nine months to obtain a right-of-way).

[24] *Triennial Review Order*, 18 FCC Rcd at 17210, para. 374.

[25] ALTS *et al*. Comments at 94, 96-97; TDS Metrocom Jenn Decl. at para. 9.

[26] AT&T Comments at 49; Mayo/MiCRA/Bates White Study at 48.

76. With respect to the physical deployment of fiber, commenters seem to agree that the construction of outside plant represents the most significant cost involved in the deployment of dedicated transport facilities.[27] This component of transport construction is distance sensitive, and competitive LECs have indicated in their comments that fiber construction costs range from $110,000 to $700,000 per mile.[28] Incumbent LECs respond that these figures assume use of the most expensive option (building new conduit, rather than leasing existing conduit) in the most expensive, urban areas, and are therefore misleadingly high.[29] Competitive LECs concede that their cost estimates include the creation of separate conduit for fiber facilities and admit that time and expense can greatly be reduced if pre-existing conduit is available, or if aerial deployment is used.[30]

77. We assume for purposes of our analysis that existing conduit is available to competitive carriers that seek to deploy their own transport facilities. All LECs are obligated under sections 251(b)(4) and 224 of the Act to provide access to poles, ducts, and conduit.[31] The record contains evidence that existing conduit frequently is available for use by competitive LECs that wish to deploy their own fiber.[32] In light of these factors, it is reasonable to assume that a reasonably efficient competitive LEC, as a general rule, need not always install new conduit in order to deploy its own dedicated transport facilities.[33] Even so, the record also shows that competitive LECs must still invest significant time and money to deploy facilities, even where conduit is already in place.[34]

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[27] *See, e.g.*, AT&T Comments at 34; SBC Reply at 37.

[28] AT&T Comments at 35 & AT&T D'Apolito/Stanely Decl. at para. 16 n.9 (suggesting that AT&T's deployment costs are comparable to the HAI figure of $125,000); Loop and Transport Coalition Comments at 79-80 (describing fiber deployment costs of $110,880-$211,200 per mile for Xspedius and $400,000 to $700,000 for XO); Mayo/MiCRA/Bates White Study at 40 (suggesting that trenching for new conduit costs between $17 and $30 per foot in suburban areas and between $70 and $100 per foot in urban areas).

[29] Qwest Reply at 11, 28-29, 36-37; SBC Reply at 37; Verizon Dec. 7, 2004 Deployment Costs *Ex Parte* Letter. *But see* Letter from David L. Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Attach. (filed Nov. 12, 2004) (asserting that AT&T's business case model is reasonable and does not over-estimate deployment costs).

[30] Alpheus Comments at 60-62 & Joint Declaration of Eleuterio (Teo) Galvan Jr. and Francisco Maella (Alpheus Galvan/Maella Decl.) at 30; ALTS *et al*. Comments at 65 (citing El Paso/Conversent Nov. 26, 2002 *Ex Parte* Letter, CC Dkt. Nos. 01-338, 96-98, 98-147, Attach. at 14-15 for the proposition that the cost of fiber construction increases tenfold when a carrier must deploy its own conduit, rather than pull fiber through existing conduit); Lightship Gawlick Decl. at para. 4 (noting that placing fiber underground can cost several hundred thousand dollars per mile, while placing fiber on poles costs a fraction of that amount); Loop and Transport Coalition Comments at 79-80 (same).

[31] 47 U.S.C. §§ 224, 251(b)(4).

[32] Qwest Reply at 36-37.

[33] To the extent that any party may believe that sections 224 or 251(b)(4) of the Act require some different interpretation or implementation, such concerns are outside the scope of this proceeding. *See supra* para. 23.

[34] Alpheus Galvan/Maella Decl. at paras. 60-88.

2. Proxy Approach to Impairment

a. Defining Relevant Markets

78. Defining relevant markets is a prerequisite step to identifying where competitors are impaired or not impaired without unbundled access to dedicated transport.[35] First, we define the relevant markets for transport as routes connecting two points. Then, we explain why it is important to analyze transport on a capacity-specific basis.

(i) Route-Specific Approach

79. Based on the economic characteristics described above and the variability of the cost of deployment, we measure impairment with regard to dedicated transport on a route-by-route basis.[36] However, we revise our approach to evaluating route-specific impairment, as described below, to accommodate reasonable inferences that can be drawn between similarly situated routes based on evidence of actual deployment by competing carriers. We find that this approach responds to the D.C. Circuit's concerns regarding the *Triennial Review Order*'s dedicated transport rules, and is consistent with the court's guidance that "[a]ny process of inferring impairment (or its absence) from levels of deployment depends on a sensible definition of the markets in which deployment is counted."[37] Thus, as we did in the *Triennial Review Order*, we identify the route as the appropriate level of granularity for our analysis. However, in order to give effect to the reasonable inferences that can be drawn between similar markets, we depart from the *Triennial Review Order*'s exclusive focus on the particular route at issue, and instead establish categories of routes, as defined by the economic characteristics of each end-point of the route, in order to better identify routes with similar economic traits. We thus find no impairment not only on routes exhibiting actual competitive deployment but also on routes that are similar, in relevant respects, to those routes.

80. A route-specific market focus, as well as treating similar routes in a like fashion, is consistent with long-standing Commission precedent identifying transport as a link between two points.[38] We

[35] *See USTA II*, 359 F.3d at 574.

[36] In contrast to other elements, such as fiber-to-the-home loops, hybrid loops, and mass market local circuit switching, we do not undertake an "at a minimum" analysis of factors other than impairment with respect to dedicated transport. In the case of fiber loops, our decisions to consider other factors in addition to impairment were designed to further deployment – by incumbent LECs and competitive LECs alike – of advanced telecommunications capabilities to the public. In the case of mass-market switching, our decision is based on a similar desire to promote infrastructure deployment, which we conclude below is hampered by the availability of the so-called "UNE Platform." These concerns are not pertinent with regard to the dedicated transport links at issue here, which are already widely deployed by incumbent LECs and will necessarily, subject to our ruling today, be utilized in conjunction with competitively deployed switches and/or other competitor-owned facilities.

[37] *USTA II*, 359 F.3d at 574.

[38] *See, e.g.*, *LEC Classification Order*, 12 FCC Rcd at 15762, 15793, paras. 5, 65 ("We define the relevant geographic market for interstate, domestic, long distance services as all possible routes that allow for a connection from one particular location to another particular location (*i.e.*, a point-to-point market). We conclude, however, that when a group of point-to-point markets exhibit sufficiently similar competitive characteristics (*i.e.*, market structure), we can aggregate such markets, rather than examine each individual point-to-point market separately."); *Application of NYNEX Corp., Transferor, and Bell Atlantic Corp., Transferee, For Consent to Transfer Control of NYNEX Corp. and its Subsidiaries*, File No. NSD-L-96-10, Memorandum Opinion and Order, 12 FCC Rcd 19985, 20016-17, para. 54 (1997) ("A geographic market aggregates those consumers with similar choices regarding a particular good or service in the same geographical area. In the [*LEC Classification Order*], we found that each point-to-point market constituted a separate geographic market. We further concluded,

define a route, for purposes of our analysis here, as a connection between incumbent LEC wire center or switch A and incumbent LEC wire center or switch Z. Even where in the incumbent LEC's network, a transport circuit from A to Z passes through an intermediate wire center X, the relevant determination is whether competitive providers are impaired without access between the two end-points, A and Z. Individual routes, even within the same larger geographic area, may have very different economic characteristics because, for instance, some routes may connect points of very high traffic aggregation while other routes do not. We find that analyzing transport at this very detailed level is necessary given the unique economic and operational characteristics of each individual route.

81. *Other Major Market Definition Proposals*. We believe the above market definition is the most reasonable, given that other proposed approaches would not provide a reliable definition of the market for the purpose of determining impairment. As a threshold matter, there are no comparable geographic regions that we are able to identify as administrable, appropriate, and otherwise reasonable at the federal level.[39]

82. We reject the proposals by Verizon and BellSouth that the Commission adopt conclusions on transport that apply to entire MSAs.[40] The Commission previously determined that a geographic area as large as a MSA is so large and varied that such a grouping is prone to significantly overbroad impairment determinations.[41] MSAs are comprised of communities that share a locus of commerce, but not necessarily common economic characteristics as they relate to telecommunications facilities deployment.[42] For example, the Washington, D.C. MSA includes outlying counties, such as Warren County, Virginia; Jefferson County, West Virginia; and Calvert County, Maryland.[43] While these areas undoubtedly represent communities with ties to the Washington, D.C. area, the economic characteristics of fiber deployment in these areas lack a commonality with the economic characteristics of deployment in the urbanized areas of Washington, D.C. Thus, even if transport facilities are widely deployed

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however, that we could consider groups of point-to-point markets where customers faced the same competitive conditions.") (internal footnotes omitted).

[39] *See, e.g.*, Maryland Commission Comments, Attach. 4, Summary of the Impairment Analysis Performed by the Staff of the Public Service Commission of Maryland in Case Nos. 8983 and 8988 at 8-12 (describing the collection of wire centers that combine to form three market areas in Maryland, as defined by the Maryland Commission staff: the Baltimore area, the Washington, D.C. area, and the remaining areas). Although these may be reasonable geographic markets, we instead adopt a framework for identifying markets that can readily be applied on a nationwide basis. *See, e.g.*, Florida Public Service Commission, *Ex Parte* Comments at 2 (dated Dec. 1, 2004) (Florida PSC Dec. 1, 2004 *Ex Parte* Comments) *in* Letter from Cindy B. Miller, Director, Office of Federal & Legislative Liaison, Florida Public Service Commission, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 1, 2004) (asserting that the Commission should provide "clear and consistent definitions and standards" to avoid "a patchwork of disparate state policies").

[40] Verizon Comments at 83-85; BellSouth Reply at 34.

[41] *Triennial Review Order*, 18 FCC Rcd at 17228-29, para. 402 (finding that "broader scale" markets would be "over- and under-inclusive").

[42] The Office of Management and Budget, charged with the establishment and updating of MSAs, describes the general concept of MSAs as "an area containing a recognized population nucleus and adjacent communities that have a high degree of integration with that nucleus" and includes both "urban cores and outlying, integrated areas." OMB, *Standards for Defining Metropolitan and Micropolitan Statistical Areas*, 65 Fed. Reg. 82228 (2000).

[43] OMB, *Update of Statistical Area Definitions and Additional Guidance on Their Uses*, Bulletin No. 04-03 (Feb. 18, 2004), Appendix at 52, 56 (listing the counties that constitute the "Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area" as of December 2003).

throughout part of an MSA (such as in the urban areas of the Washington, D.C. region), it would be inappropriate to infer a lack of impairment on every route in every part of that MSA, because economic conditions may vary significantly from one part of an MSA to another: it cannot be that a lack of impairment in downtown Washington, D.C. means that distant areas, including parts of West Virginia, show a similar lack of impairment. Each of the BOCs has submitted detailed maps showing competitive transport deployment and other information on an MSA basis. These maps confirm that competitive fiber consistently is located in and around the core business district of every major city – and not necessarily elsewhere.[44] Due to the wide variability in market characteristics within an MSA, MSA-wide conclusions would substantially over-predict the presence of actual deployment, as well as the potential ability to deploy.[45] The route-specific test that we adopt more carefully measures actual and potential transport deployment and avoids the costs of failing to unbundle where, in fact, unbundling is appropriate. Thus, unlike an MSA approach, the route-based approach we adopt is more closely "aimed at tracking relevant market characteristics and capturing significant variation."[46]

83. Similarly, we reject competitive LEC proposals to use MSAs as a way to cabin the application of trigger proxies. Both ALTS and the Loop and Transport Coalition propose a test for identifying non-impairment for transport, but limit the focus of the proposed inquiry to the top 50 MSAs in the nation.[47] Because we have evidence in the record suggesting that competitive transport deployment is not at all limited to the top 50 MSAs,[48] it would be irresponsible to our statutory duty to ignore such deployment.

84. We also reject the proposal by BellSouth and Verizon to use a single end-point trigger test because it fails to consider the economics of deployment on both ends of a transport route.[49] BellSouth's test is based solely on the addressable market (including the presence of alternative transport) at one end of a route such that when one end of a route is found to be competitive, no unbundled transport will be available in or out of that wire center. This approach is inconsistent with the economics of deploying competitive transport facilities, as described above.[50] BellSouth's proposal would effectively leverage the existence of competitive alternatives at one end of a route to remove the unbundling obligation to many other locations without any proof that a requesting carrier could self-provide or utilize alternative transport to reach those other locations.[51] In other words, BellSouth's proposal is designed to ignore significant and relevant economic factors that are fundamental to a competing carrier's ability to deploy transport. This is not to say that we do not find any value in BellSouth's proposal. In fact, BellSouth's

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[44] *See supra* para. 70.

[45] *See e.g.*, MCI Comments at 148-50; AT&T Reply, Reply Declaration of Lee L. Selwyn (AT&T Selwyn Reply Decl.) at paras. 94-103.

[46] *USTA II*, 359 F.3d at 563.

[47] Loop and Transport Coalition Comments at 82-84 (limiting application of the highest tier to the top 50 MSAs); ALTS *et al*. Comments at 81-84 (limiting application of the high and middle tier portions of the test to the top 50 MSAs).

[48] *See, e.g.*, BOC UNE Fact Report 2004, App. D at D-6 through D-13.

[49] BellSouth Comments at 42; Verizon Comments at 82; Letter from Susanne A. Guyer, Senior Vice President, Federal Regulatory Affairs, Verizon, and Michael E. Glover, Senior Vice President & Deputy General Counsel, Verizon, to Michael K. Powell, Chairman, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 4 (filed Dec. 8, 2004) (Verizon Dec. 8, 2004 Guyer/Glover *Ex Parte* Letter), *in* Letter from Ann D. Berkowitz, Associate Director, Federal Regulatory Advocacy, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket Nos. 01-338 (filed Dec. 8, 2004).

[50] *See Triennial Review Order*, 18 FCC Rcd at 17227-28, para 401.

[51] *See, e.g.*, ALTS *et al*. Comments at 67; MCI Reply at 91-92.

focus on the economics of an end-point of a transport route is central to our analysis. The test we adopt today adopts the focus on the ability to deploy transport facilities based on the economics of the end-point, but avoids the false sense of competitiveness inherent in focusing on only one end of a route, rather than both ends.

85. We also reject the proposals by NuVox and ATX *et al*. to analyze interoffice transport separately when it is used as a component of an EEL combination.[52] These proposals would, in effect, deem EELs to be a separate network element, an idea the Commission rejected in the *Triennial Review Order*.[53] Instead, as we previously held, to the extent that the loop and transport elements that comprise a requested EEL circuit are available as unbundled elements, then the incumbent LEC must provide the requested EEL.[54] Thus the Commission's combinations rules apply to combinations of network elements for which the Commission already has found impairment.[55] We see no benefit in performing a duplicative analysis of the same elements, and the parties provide no compelling case why an impairment analysis of the individual element components of an EEL combination is insufficient. Nor do NuVox and ATX *et al*. answer why, if an efficient competitor could duplicate the transport facility on that route, NuVox should continue to have access to unbundled transport on that route.

(ii) Capacity-Specific Approach

86. Just as the Commission found in the *Triennial Review Order*, there are significant differences between the potential revenues available from circuits of different capacities.[56] For example, a competing carrier is able to sell services at the DS1 level that only return a fraction of the revenues that are available from a service offered at DS3 or OCn capacity levels.[57] While the BOCs suggest, and rightly so, that a fiber transmission facility can be channelized down to serve any level of capacity, we reject their argument that such ability requires a finding of no impairment for any capacity.[58] Their argument simply ignores the high fixed and sunk costs associated with deploying local fiber transmission facilities that we

[52] NuVox Comments at 15-2l; ATX, Blackfoot, *et al*. Comments at 22-25.

[53] *Triennial Review Order*, 18 FCC Rcd at 17340-41, para. 575 & n.1775 ("We deny . . . CompTel's request to specify the EEL as an additional network element."). While NuVox asserts its request is different from a request to declare EEL combinations to be a separate UNE, we cannot distill how this distinction would be meaningful in implementation.

[54] *Triennial Review Order*, 18 FCC Rcd at 17340-41, para. 575. Because we eliminate the state review aspects of the *Triennial Review Order* and do not disturb the EELs eligibility criteria established in the *Triennial Review Order*, and upheld by the *USTA II* decision, we dismiss as moot the petition for waiver filed on February 2, 2004 by BellSouth asking the Commission to grant a temporary waiver of our EELs unbundling rules until state completion of the proceedings described in the *Triennial Review Order*. *See* BellSouth Corporation Petition for Waiver, CC Docket Nos. 01-338, 96-98, 98-147 (filed Feb. 11, 2004).

[55] 47 C.F.R. § 51.315, *aff'd Verizon Communications v. FCC*, 535 U.S. 467, 528-38 (2002).

[56] *Triennial Review Order*, 18 FCC Rcd at 17210-11, paras. 376-77.

[57] *See id.* We note that the Commission, in the *Triennial Review Order*, did not require incumbent LECs to unbundle OCn capacity transport facilities. *Triennial Review Order*, 18 FCC Rcd at 17219-21, paras. 388-89. The D.C. Circuit did not address this decision of the Commission.

[58] *See, e.g.*, Qwest Comments at 76-77, 88; SBC Reply at 29, 32; Verizon Pilgrim Reply Decl. at para. 3; BOC UNE Fact Report 2004 at III-2, III-10 (stating that "fiber-optic capacity is routinely "channelized" – SONET-based 'add/drop' multiplexers and demultiplexers at each end of the glass simply carve virtual dedicated circuits of varying bandwidths out of the single physical whole"); *see also Triennial Review Order*, 18 FCC Rcd at 17208-09, para. 372.

find are overcome only at higher transmission capacities. It may be true that when a competing carrier already has justified deployment of transport facilities based on existing and expected revenues sufficient to overcome the high costs of deployment, that carrier can then add electronics to channelize or otherwise serve smaller capacity services using existing facilities.[59] This is wholly different than a carrier that only requires a very low capacity of transmission at a particular location and that cannot justify the costs of deployment based on the relatively low revenues available from serving customers at that capacity. Below, we describe how the economic characteristics of different capacities of transport vary, and thus require varied treatment.

b. Drawing Reasonable Inferences from One Market to Another

87. As noted above, the D.C. Circuit criticized the Commission's *Triennial Review Order* framework for dedicated transport for failing to provide a meaningful method to identify which routes were similar to other routes, and thus failing to make inferences where possible.[60] We find that the best way to respond to this concern is by categorizing similar end-points, and then making determinations of impairment or non-impairment for the resulting combinations (*i.e.*, routes) connecting different classes of end-points. Specifically, we utilize evidence of actual deployment to define the general characteristics of incumbent LEC wire centers[61] where we believe there is a lack of impairment – that is, where reasonably efficient competitive LECs are capable of duplicating the incumbent LEC's network.[62] Thus, the proxies we use for this purpose identify where revenue opportunities are or could be sufficient to justify competitive LEC deployment. The tests that we adopt below therefore evaluate impairment through a focus on wire centers, the end-points of routes, in a manner that accounts for both actual and potential competition.

88. The tests we adopt today are designed to capture both actual and potential competition, based on indicia of significant revenue opportunities at wire centers. Our determinations, based on these indicia, are not, nor are they required to be, error-proof.[63] The predictive nature of our tests permits us to "infer[] impairment (or its absence)" based on "a sensible definition of the markets in which deployment is counted."[64] Further, we are given significant latitude to infer the absence of impairment "where the

[59] *See, e.g.*, AT&T Reply at 34-38.

[60] Instead, the Commission established a loose set of "economic characteristics" and provided little guidance for states to identify those routes that, although failing to satisfy one of the triggers, were capable of supporting "multiple, competitive supply" – essentially allowing states to determine similar routes. *Triennial Review Order*, 18 FCC Rcd at 17232-33, para. 410. *But see USTA II*, 359 F.3d at 574 (characterizing these criteria as "quite fluid and [not] quantified").

[61] By "wire center," we mean any incumbent LEC switching office that terminates and aggregates loop facilities. Thus, line counts derived on a wire center basis include all loops that terminate in that location, even if they terminate on separate switches. To the extent that an incumbent LEC switching office exists that has no line-side function, such as an access tandem located in a building apart from line-side switching facilities, we provide for such offices in our analysis, below. This definition also includes any incumbent LEC switches with line-side functionality that terminate loops that are "reverse collocated" in non-incumbent LEC collocation hotels.

[62] *See USTA II*, 359 F.3d at 575 (criticizing the Commission for failing to infer where "competition is possible," particularly along similarly situated routes).

[63] *See supra* Part IV.C; *WorldCom, Inc. v. FCC*, 238 F.3d 449, 461-62 (D.C. Cir. 2001) (concluding that the Commission's selection of trigger thresholds in the *Pricing Flexibility Order* were rational and that the Commission "is not held to a standard of perfection").

[64] *USTA II*, 359 F.3d at 574.

element in question—though not literally ubiquitous—is significantly deployed on a competitive basis."[65] Moreover, we note that the D.C. Circuit encouraged the Commission to consider the additional deployment that might occur in the absence of unbundling, thus providing additional latitude to make inferences toward findings of no impairment.[66]

89. Our approach accounts for the different ways that competitive LECs deploy their own transport networks. By focusing on the competitive characteristics of a wire center and the inferences we draw from similar routes, we believe we are able to capture competitive LEC deployment that does not precisely mirror the incumbent LEC's network design. This is because we are able to assess where competitors successfully have deployed or could deploy on both a wire center and route-specific basis, without being limited to individual carrier decisions about network planning.

90. Our approach here, though route-specific, is also consistent with the court's instruction to make inferences about potential economic deployment on similarly situated routes.[67] The D.C. Circuit rebuked the Commission for "ignor[ing] facilities deployment along similar routes when assessing impairment."[68] The court reasoned that, if offices A, B, and C are in the same geographic market and similarly situated, then competition on the A-B route is relevant to impairment on the A-C route, and should be considered in whatever test the Commission adopts to evaluate impairment. As discussed above,[69] we have revised our analysis to account for such inferences. Thus, the analysis we adopt here is aimed at identifying whether particular routes are, in fact, "similarly situated with regard to the 'barriers to entry' that the Commission says are controlling."[70] For example, even if a particular wire center exhibits few or no competitive fiber facilities, the fact that other wire centers displaying similar economic characteristics tend to be the site of more significant competitive facilities deployment will serve as the basis for a reasonable inference that the wire center in question could potentially support such deployment. By abstracting the economic characteristics of individual incumbent LEC wire centers to identify routes where competitive deployment is economic (based on indicia of high potential revenues), we are able to treat all routes with similar sets of end-points in a similar fashion, making reasonable inferences about potential competition even where no such competition has developed to date. Thus, if office C shares similar characteristics with offices A and B, then we will make inferences about competitive deployment and, accordingly, unbundling obligations. Conversely, if office C does not share common characteristics with offices A and B, then we will infer that the economics of the A to C route are different from, and cannot be compared directly to, the economics of deploying transport facilities between A and B.

91. As described below, the test we adopt in this Order examines the feasibility of duplicating dedicated transport facilities connecting incumbent LEC wire centers. Further, we have established proxies based on actual deployment to identify incumbent LEC offices to which it is feasible for competitive LECs to deploy alternative fiber facilities. We infer at this point that the ability to deploy facilities at the two end-points of a route signals the ability to connect, even if indirectly, the two end-

[65] *USTA I*, 290 F.3d at 422 (quoted by *USTA II*, 359 F.3d at 574).

[66] *USTA II*, 359 F.3d at 570 (suggesting that the Commission "integrate[] . . . some projection of the demand increase that would result from the withholding of [network elements] as UNEs"). As explained above, we do not conduct an "at a minimum" evaluation of factors other than impairment in our evaluation of unbundling obligations with regard to dedicated transport. *See supra* note Error: Reference source not found.

[67] *See USTA II*, 359 F.3d at 574-75.

[68] *Id.* at 575.

[69] *See supra* Part IV.C.

[70] *USTA II*, 359 F.3d at 575.

points via a transport facility.[71] This comports with our understanding that it is necessary to inquire about the economics of deploying competitive transport facilities only after considering the economic conditions on both ends of a transport route. After identifying end-points that share similar characteristics, we infer impairment on routes between different classes of end-points. By doing so, we have established an accurate and easily administered mechanism to identify similarly situated routes.

92. We disagree with competitive LECs that warn that making such an inference is dangerous and likely to be over-inclusive.[72] Our thresholds for determining wire centers where deployment is possible have been chosen because significant actual deployment is evident at wire centers, or similar wire centers, where we find no impairment.

c. Inferences Based on Actual Deployment

93. We have weighed carefully a variety of actual competitive indicia for determining impairment[73] and determine that the best and most readily administered indicator of the potential for competitive deployment is the presence of fiber-based collocators in a wire center.[74] We also determine that business line density in a wire center is a useful tool to infer where carriers are likely to have collocated with fiber, and thus, a measure of where competitors are capable of duplicating the incumbent LEC's network.[75] Both of these measures constitute proxies for where sufficient revenue opportunities exist to justify the high fixed and sunk costs of transport deployment.

94. Our test for impairment, therefore, relies on whether the wire centers defining a route's end-points have a particular number of incumbent LEC business lines or a particular number of fiber-based collocators. Although in many instances, wire centers will satisfy or fail to satisfy both thresholds, we conclude that applying these measures in a disjunctive tandem will better capture actual and potential deployment than any single measure. Specifically, these complementary tests will capture markets where only a small number of collocating carriers have fiber collocated in wire centers with a very large number of business lines, representing significant potential revenues and thus, the potential for further competitive build-out.[76] Likewise, the complementary nature of these tests will also capture wire centers with significant competitive fiber-based collocation, but with relatively few business lines, thus

[71] *Compare* SBC Reply at 29-30 *with* Declaration of Gary J. Ball, QSI Consulting at para. 12, *in* Letter from CompTel/ASCENT *et al*., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket Nos. 01-338, 96-98, 98-147 (filed Nov. 2, 2004) (disputing whether facilities that indirectly connect to end-points counted for purposes of applying the *Triennial Review Order* triggers).

[72] *See, e.g.*, AT&T Reply at 39-43, 48-49.

[73] *See infra* paras. 98, 107-10 (evaluating other proposals).

[74] We define the parameters of fiber-based collocation *infra* para. 102.

[75] Alpheus Comments at 20 ("[B]usiness access lines have some value as a proxy for when competitors have in the past deployed fiber transport" because "above a certain level of business access line density, carriers have been able to obtain revenue sufficient to overcome the enormous barriers to entry.").

[76] This ability to capture wire centers with a high potential for competitive entry would be lost if we were to adopt a conjunctive test, requiring that both a fiber-based collocation and a business line threshold be satisfied. *See, e.g.*, Letter from Steven A. Augustino, Counsel for XO Communications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket 01-338 at 1 (filed Dec. 8, 2004) (XO Dec. 8, 2004 Augustino *Ex Parte* Letter) (proposing that the Commission adopt a test for transport applying fiber-based collocation and business line counts in a conjunctive manner). *But See, e.g.*, Letter from Joshua M. Bobeck, Counsel for Alpheus, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 1-2 (filed Dec. 8, 2004) (asserting that a conjunctive test would be more appropriate).

accounting for situations in which competition has developed notwithstanding the absence of such competition in similarly situated wire centers.[77] Although these measures may prove occasionally to over- or under-predict the presence of actual competitive facilities, as explained below, we find that this test provides the best means to deduce where competitive LECs have the ability to duplicate the incumbent LECs' networks.

95. Intermodal competition is captured, at least in part, by the operation of both fiber-based collocation and business line counts.[78] Our fiber-based collocation test captures intermodal competitors' transport facilities, including those using fixed-wireless[79] and cable facilities, which often collocate in at least some locations.[80] However, we recognize here, as the Commission and the D.C. Circuit have in the past, that fiber-based collocation does "underestimate[] competition in relevant markets as 'it fails to account for the presence of competitors that . . . have wholly bypassed incumbent LEC facilities.'"[81] On the other hand, incumbent LEC business line counts, even if they do not include lines served directly by competitors, measure the potential revenues available from a wire center. Wire centers that are rich in potential revenues will be counted similarly, capturing areas in which intermodal and intramodal competitors alike have incentives to deploy transmission facilities. Thus, intermodal competition is captured by our test through the working combination of both indicia.

96. *Fiber-Based Collocation*. We use fiber-based collocation as a key factor in determining where competing carriers already have deployed fiber transport facilities because a sufficient degree of such collocation indicates the duplicability of these network elements and, thus, a lack of impairment. The Commission previously has used fiber-based collocation as a key indicator of competitive fiber deployment, and the D.C. Circuit has affirmed this use as reasonable.[82] Fiber-based collocation in a wire center very clearly indicates the presence of competitive transport facilities in that wire center and signals

[77] Thus, wire centers that fall below a general business line threshold, but nevertheless exhibit signs of significant competition would not be addressed if we were to apply our fiber-based collocation and business lines in a conjunctive manner. *See, e.g.*, Qwest Reply at 49-57 (explaining that it faces significant competition in small wire centers throughout its region); Letter from Karen Brinkmann, Counsel for Independent Telephone & Telecommunications Alliance, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 22, 2004) (asserting that "general rules or 'bright-line' tests that rely on a single indicator of competition have the potential to inappropriately burden smaller and rural ILECs with unbundling requirements in markets where competition is obviously strong").

[78] *See supra* para. 39.

[79] *See infra* para. 102 (including fixed-wireless carrier collocation arrangements in our definition of fiber-based collocation).

[80] Verizon Comments, Attach. B, Joint Declaration of Judy K. Verses, Ronald H. Lataille, Marion C. Jordan, and Lynelle J. Reney (Verizon Verses/Lataille/Jordan/Reney Decl.), Exhs. 3A & 3B (showing fiber-based collocations by carrier, including fixed wireless and cable operators). Such carriers may collocate in order to access incumbent LEC loops, to interconnect with the incumbent LEC or other carriers, or to provide wholesale transmission services.

[81] *WorldCom, Inc. v. FCC*, 238 F.3d 449, 462 (D.C. Cir. 2001) (quoting *Pricing Flexibility Order*, 14 FCC Rcd at 14265-66, para. 81).

[82] *Pricing Flexibility Order*, 14 FCC Rcd at 14265-69, paras. 81-86 (describing why fiber-based collocation is an appropriate indicia for the purposes of determining special access pricing flexibility), *aff'd*, *WorldCom, Inc. v. FCC*, 238 F.3d 449, 458-60 (D.C. Cir. 2001) (affirming the Commission's use of fiber-based collocation as a reasonable proxy). We do not adopt the *Pricing Flexibility Order* test because we are applying a different statutory standard – one that looks carefully at duplicability and economic entry while the *Pricing Flexibility Order*, which relied in part on the availability of UNEs, concerned itself solely with the ability to constrain prices.

that significant revenues are available from customers served by that wire center sufficient to justify the deployment of transport facilities.[83]

97. Further, the record indicates that those competing carriers that deploy fiber and collocate do so in multiple incumbent LEC wire centers within core business areas, thus increasing the chances that competitive transport facilities exist connecting many incumbent LEC wire centers.[84] For instance, Verizon submitted evidence, based on physical inspections of collocation arrangements in its wire centers, showing that dozens of competing carriers each have collocated with fiber facilities in several wire centers in various market areas.[85] For these reasons, we find it likely that the same competing carriers will have fiber-based collocations on both ends of a route, making possible a connection between the two end-points.[86]

98. Accordingly, we reject MCI's proposal for a matched-pair test that requires that a certain number of competing carriers each have fiber-based collocations in both end-points of the route in order to find no impairment.[87] While the test we adopt in this Order takes into account the presence of competitive fiber transport facilities on both ends of a route, it does not require verification that fiber on both ends is operated by the same carriers. While we agree that MCI's proposal provides a useful tool to assess existing competitive facilities, we find that it fails to account for areas of potential deployment, or to make any significant inferences. MCI argues that a matched-pair test accounts for potential deployment because, while a competitive LEC may have fiber facilities connected to each office, the competitive

[83] *WorldCom v. FCC*, 238 F.3d at 459 ("[C]ollocation can reasonably serve as a measure of competition in a given market and predictor of competitive constraints upon future LEC behavior.").

[84] MCI Comments at 144; BOC UNE Fact Report 2004 at III-8 through III-9; KMC Duke Decl. at paras. 7, 13; XO Tirado Decl. at paras. 10-14; Verizon Reply at 47; Verizon Pilgrim Reply Decl. at paras. 4-5.

[85] Verizon Verses/Lataille/Jordan/Reney Decl., Exhs. 3A, 3B (for its largest MSAs listing each competing carrier with fiber collocation facilities by wire center) (contains proprietary information subject to the Protective Order). Verizon's data show that for those MSAs in the former Bell Atlantic region with at least three wire centers hosting fiber-based collocators, the competing carrier with the most fiber-based collocations in that MSA is collocated, on average, in 75% of the wire centers with any fiber-based collocators. The second-most widely based fiber collocator is collocated in 64% of such wire centers. These numbers increase substantially in those wire centers that host more than one fiber-based collocator. For wire centers with two or more fiber-based collocators, the most widely collocated carrier in each MSA has fiber-based collocations at 81% of such wire centers while the second-most widely collocated in each MSA carrier has fiber-based collocations at 79% of such wire centers. For wire centers with four or more fiber-based collocators, the most widely collocated carrier in each MSA has fiber-based collocations in 93% of such wire centers while the second-most widely collocated carrier has fiber-based collocations in 91% of such wire centers. (Because Verizon shares major portions of some MSAs with other carriers outside of its former Bell Atlantic region, we excluded those data from our calculations).

[86] MCI Comments at 144 (stating that "[i]t is not unreasonable to expect that at least a subset of the four CLECs that have collocated on both ends of the route have or could overcome the remaining barriers to provide DS3 dedicated transport in most cases"). Although one commenter has argued that, particularly under BellSouth's proposed transport test and according to BellSouth's data and several key assumptions, there is a low probability that competitive LECs connect many wire centers in an area, our analysis of evidence provided by Verizon, *supra* note Error: Reference source not found, indicates that competing carriers often are widely collocated throughout the major wire centers in an area. *See* Reply Declaration of Michael Pelcovitz and Chris Fentrup (MiCRA Pelcovitz/Fentrup Reply Decl.) at para. 41, *in* Letter from Thomas Cohen, Counsel for AT&T, Blackfoot Telecommunications Group, *et al.*, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 04-313, 01-338, 96-98, 98-147 (filed Oct. 19, 2004).

[87] MCI Comments at 141-51 (proposing that when four or more carriers each have fiber-based collocation at both ends of a route, then the Commission can find a lack of impairment for the route).

LEC's network may not be engineered to provide a direct connection between the two points.[88] While this may be true, we find this claim to be in tension with our definition of impairment, which finds the high costs of fiber deployment rather than circuit manipulation and engineering to be significant factors in the impairment calculation.[89] Thus, we find that MCI's test is nothing more than an accounting of existing competitive facilities – an exercise that is insufficient for identifying where competing carriers are impaired.[90] MCI touts its proposal as being "relatively easy to administer," using fiber-based collocation as a key indicator, as we do.[91] However, MCI's proposal would require the extra administrative burden of requiring both the identification and matching of each carrier on each end of a route, rather than simply providing a raw count, as our test advances. As we already have established, the same transport providers are likely to be collocated on both ends of multiple routes in a given metro area, making MCI's proposal for matched pairs unnecessary, while adding a significant element of complexity beyond the test that we adopt.[92]

99. Fiber-based collocation also stands out as one of the most objective indicia of competitive deployment available to us.[93] Both incumbent LECs and competitive LECs agree that fiber-based collocation data are relatively simple to identify and collect.[94] We are acutely aware of the need to base any test we adopt here on the most objective criteria possible in order to avoid complex and lengthy proceedings that are administratively wasteful but add only marginal value to our unbundling analysis.[95] Most parties seem to agree that long, extended proceedings add significant costs as well as uncertainty about the future state of the rules and an easily administrable test will avoid that uncertainty. Unlike our approach here, the data required to administer our previous transport test was complex and allowed significant latitude to decipher exactly what type of data counted toward the application of a trigger.[96] Moreover, unlike information regarding fiber-based collocation, the information necessary to implement the previous self-deployment triggers was possessed entirely by a span of competitive LECs and was not easily verifiable.

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[88] *Id*. at 142; *see also* Letter from Joshua M. Bobeck, Counsel for Alpheus Communications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 3-4 (filed Dec. 2, 2004) (Alpheus Dec. 2, 2004 *Ex Parte* Letter) (making similar arguments to those of MCI).

[89] *See supra* paras. 80, 91. Further, we have never found a lack of impairment for the ability to re-engineer a network. *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17214, para. 382. Rather, the impairment we have identified for transport exists in the high fixed and sunk costs of deploying fiber, and is thus satisfied when a carrier has deployed its network (by definition, connected to its sub-parts) to both end-points of a route.

[90] *See supra* para. 87 (explaining why we adopt a test including inferences).

[91] MCI Comments at 141.

[92] *See supra* para. 97 & note Error: Reference source not found (showing that multiple competitive transport networks typically connect most wire centers in a metro area that meet our collocation thresholds).

[93] *See Pricing Flexibility Order*, 14 FCC Rcd at 14267-69, paras. 84-86 (concluding that "a collocation-based trigger provides an administratively simple and readily verifiable mechanism for determining whether competitive conditions" warrant regulatory relief).

[94] Loop and Transport Coalition Comments at 85 (stating that fiber-based data are "easier to collect" than *Triennial Review Order* trigger data and suggesting that the Commission require competitive LECs to identify every office in which they maintain a fiber-based collocation).

[95] *See Pricing Flexibility Order*, 14 FCC Rcd at 14267-69, paras. 84-86; *WorldCom v. FCC*, 238 F.3d at 459 (holding that the Commission's "decision to make ease of administration and enforceability a consideration in setting its standard for regulatory relief" is not arbitrary or capricious).

[96] Qwest Reply at 10; Qwest Reply, Attach. 1, Declaration of David L. Teitzel (Qwest Teitzel Reply Decl.) at paras. 4-10; SBC Reply at 33; BellSouth Reply at 29, 31-33.

100. Fiber-based collocation information, in contrast, is readily available. Many incumbent LECs have been reviewing and maintaining this data for years in order to demonstrate eligibility for special access pricing flexibility.[97] Indeed, the BOCs all have submitted into this record data and arguments tied to fiber-based collocation.[98] Moreover, because most competitive LECs purchase some facilities or services from incumbent LECs, such as interconnection, collocation, loops, and so forth, an incumbent LEC typically possesses significant aggregated information about competitors in its markets.[99] Information regarding fiber-based collocation is readily identifiable by incumbent LECs, via review of billing records or physical inspection of central office premises.[100] Moreover, incumbent LEC counts of fiber-based collocations can be verified by competitive LECs, which will also be able to challenge the incumbent's estimates in the context of section 252 interconnection agreement disputes.

101. Additionally, we find that fiber-based collocation provides a reasonable proxy for where significant revenue opportunities exist for competitive LECs, regardless of the size, density, or geographic attributes of the wire center, because it identifies competition in both large and small incumbent LEC wire centers.[101] The record indicates that there are smaller wire centers to which competitors have deployed significant transport facilities. Because our thresholds are disjunctive, our test will capture these relatively smaller offices that, through fiber-based collocation, display signs of significant potential revenues.

102. We define fiber-based collocation simply. For purposes of our analysis, we define fiber-based collocation as a competitive carrier collocation arrangement, with active power supply, that has a non-incumbent LEC fiber-optic cable[102] that both terminates at the collocation facility and leaves the wire

[97] *See Pricing Flexibility Order*, 14 FCC Rcd at 14268-69, para. 85 (concluding that a test relying on fiber-based collocation "is administratively simple because [among other reasons] several BOCs have provided data of this type").

[98] *See* BellSouth Comments, Attach. 4, Affidavit of Shelley W. Padgett (BellSouth Padgett Aff.), Exh. SWP-1 and Exh. SWP-3; Letter from Brian J. Benison, Associate Director - Federal Regulatory, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313 (filed Nov. 1, 2004) (SBC Nov. 1, 2004 *Ex Parte* Letter); Letter from Edwin J. Shimizu, Director-Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Oct. 28, 2004) (Verizon Oct. 28, 2004 *Ex Parte* Letter); Letter from Craig J. Brown, Corporate Counsel, Qwest, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 1, 2004) (Qwest Nov. 1, 2004 *Ex Parte* Letter); Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[99] MCI Comments at 141 (advocating the use of a two end-point fiber-based collocation test because "it is relatively easy to administer" and "because the ILECs have access to all of the data needed to determine where such fiber-based collocators exist without the need for any discovery and without the need to rely on data from state proceedings").

[100] *Id*. ("ILECs have all of the data needed to determine where fiber-based collocators exist without the need for discovery and without the need to rely on data from state proceedings"); Verizon Verses/Lataille/Jordan/Reney Decl. at paras. 9-14 (describing the processes Verizon employed to physically inspect its wire centers for competitive LEC fiber-based collocation). *See, e.g.*, *Pricing Flexibility Order*, 14 FCC Rcd at 14269, para. 86 (describing billing records as a ready means for incumbent LECs to identify fiber-based collocators).

[101] *See* MCI Comments at 142 (stating that "the presence of [fiber-based] collocators is at least a reasonable surrogate for overall impairment with respect to DS3 transport"); *see also* Qwest Reply at 11-13 (discussing variations in costs between deployment in very dense areas versus deployment in less dense areas and stating that the Commission "must take into account the conditions at the relevant market level").

center.[103] We find that the collocation arrangement may be obtained by the competing carrier either pursuant to contract, tariff or, where appropriate, section 251(c)(6) of the Act, including less traditional collocation arrangements such as Verizon's CATT fiber termination arrangements.[104] Because fixed-wireless carriers' collocation arrangements may not literally be fiber-based, but nevertheless signal the ability to deploy transport facilities, we include fixed-wireless collocation arrangements at a wire center if the carrier's alternative transmission facilities both terminate in and leave the wire center.[105] In tallying the number of fiber-based collocators for purposes of our transport impairment analysis, parties shall only count multiple collocations at a single wire center by the same or affiliated carriers as one fiber-based collocation.[106] Finally, we find that a competing carrier's collocation facilities shall count toward the qualification of a wire center for a particular tier irrespective of the services that the competing carrier offers because the fiber-based collocation indicates an ability to deploy facilities and because it would exponentially complicate the process of counting such collocation arrangements.

103. *Business Line Density*. Business line density also is an administrable proxy for determining where significant revenues are available sufficient for competitors to deploy transport facilities, despite the fixed and sunk costs of deployment. Wire centers that possess a high level of demand for telecommunications services are most likely to attract and support competing carrier transmission facilities that duplicate the incumbent LEC's network.[107] For example, Alpheus asserts that "business access lines have some value as a proxy for when competitors have in the past deployed fiber transport"

[102] We find that when a company has collocation facilities connected to fiber transmission facilities obtained on an indefeasible right of use (IRU) basis from another carrier, including the incumbent LEC, these facilities shall be counted for purposes of this analysis and shall be treated as non-incumbent LEC fiber facilities. *Triennial Review Order*, 18 FCC Rcd at 17231-32, para. 408 & nn.1263, 1265.

[103] *See* Verizon Verses/Lataille/Jordan/Reney Decl. at para. 13 (using a similar standard for the physical inspection it performed to identify fiber-based collocation arrangements in its network). We expect this to identify cable company transport facilities to the extent the cable company has collocated with access to its own transmission facilities.

[104] *See Triennial Review Order*, 18 FCC Rcd at 17230, para. 406 & n.1257.

[105] For this reason, although we refer to our indicia as "fiber-based collocation," our test is actually agnostic as to the medium used to deploy an alternative transmission facility, because we find that a technologically neutral test better helps us to capture the actual and potential deployment in the marketplace than would a wireline-specific test.

[106] *See* 47 U.S.C. § 153(1). BellSouth, for example, indicates that the wire center data it submitted, including counts of fiber-based collocation arrangements in each of its wire centers, "did not include multiple arrangements maintained by the same carrier . . . [t]hus, . . . the data presented by BellSouth in this proceeding reflect the number of fiber-based collocators in each office, not the number of fiber-based collocation arrangements." Letter from Bennett L. Ross, General Counsel-D.C., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 1 (filed Nov. 30, 2004); *see also* Letter from Joan Marsh, Director-Federal Government Affairs, AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 19, 2004) (asserting that counting carriers with fiber-based collocation, rather than individual cage arrangements, provides a better sense of the number of alternative transport providers); Letter from Alan Buzacott, Senior Manager-Federal Regulatory, MCI, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2 (filed Nov. 10, 2004) (MCI Nov. 10, 2004 *Ex Parte* Letter) (asserting that counting carriers with fiber-based collocation, rather than individual cage arrangements, provides a better sense of the number of alternative transport providers), *in* Letter from A. Renée Callahan, Counsel for MCI, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (Nov. 10, 2004).

[107] *See* Loop and Transport Coalition Comments at 82-83 (explaining that large concentrations of business lines indicate sufficient market to support transport deployment); BellSouth Comments at 39-44; SBC Comments at 78-80.

because "above a certain level of business access line density, carriers have been able to obtain revenue sufficient to overcome the enormous barriers to entry."[108] Further, business lines are a more accurate predictor than total lines because transport deployment largely has been driven by the high bandwidth and service demands of businesses, particularly in areas where business locations are highly concentrated.[109]

104. We find that there is typically a nexus between business line density and fiber-based collocation. Based on data provided by incumbent LECs, there is a strong correlation between business line counts and competitive facilities deployment in a given office, particularly above a certain threshold size. For all four BOCs, there is a clear trend showing that as the business line count in a wire center increases, so too does the number of fiber-based collocators.[110] We describe in detail this relationship in our discussion supporting specific thresholds below. Despite this trend, we note that business line counts measure only those business lines provided over the incumbent LEC's network.[111] Thus, where full-facilities based competitors have captured a significant share of the business market, the incumbent LEC's business line counts are likely to under-represent the total revenues available in that wire center. Nevertheless, we find that this shortcoming can be accommodated by establishing business line density thresholds lower to account for incumbent LEC line loss due to facilities that bypass the incumbent's loop network altogether, including line loss from intermodal competition.

105. Moreover, as we define them, business line counts are an objective set of data that incumbent LECs already have created for other regulatory purposes.[112] The BOC wire center data that we analyze in this Order is based on ARMIS 43-08 business lines,[113] plus business UNE-P, plus UNE-loops.[114] We adopt this definition of business lines because it fairly represents the business opportunities in a wire

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[108] Alpheus Comments at 20; *see also* ALTS *et al*. Comments at 82.

[109] *See, e.g.*, Alpheus Comments at 20-21; *see also* Sprint Reply at 38 (arguing that line count thresholds are improper, but noting that over 90% of business access lines are located in the small number of wire centers with greater than 5,000 business lines – the threshold that some BOCs propose).

[110] Although we do not have wire center data for non-BOC incumbent LECs in our record, we note that over 98% of all UNEs nationwide are obtained from the four BOCs and at least 95% of all UNEs without switching are obtained from the four BOCs. *See* Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2003*, Table 4 (June 2004); Industry Analysis and Technology Division, Wireline Competition Bureau, *Selected RBOC Local Telephone Data as of December 31, 2003* (June 2004); *cf.* 47 U.S.C. § 251(f) (exempting certain "rural telephone companies" from the requirements of section 251(c)).

[111] We are constrained by the evidence in the record. Nevertheless, we use information that is provided by the BOCs in the record that we believe most readily informs our analysis.

[112] Because we have already adopted rules using ARMIS data for line counts we dismiss as moot the emergency request for a limited modification of interim protective order filed on September 8, 2004 by ALTS, which asks the Commission to modify the protective order in the Universal Service fund docket (*Federal-State Joint Board on Universal Service*, Interim Protective Order, 15 FCC Rcd 10183 (2000)) to allow access to line count data. *See* Association for Local Telecommunications Services Emergency Request for a Limited Modification of Interim Protective Order, CC Docket No. 01-338 (filed Sept. 8, 2004).

[113] *See* Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, *FCC Report 43-08 – Report Definition* (Dec. 2004), *available at*: *http://www.fcc.gov/wcb/armis/documents/2004PDFs/4308c04.pdf*; *see also Automated Reporting Requirements for Certain Class A and Tier 1 Telephone Companies (Parts 31, 43, 67, and 69 of the FCC's Rules)*, CC Docket No. 86-182, Report and Order, 2 FCC Rcd 5770 (1987), *modified on recon*., 3 FCC Rcd 6375 (1988) (*ARMIS Order*) (annual updates omitted). For further information regarding the Commission's ARMIS filing requirements, please refer to the Commission's Internet *ARMIS Home Page*, available at: *http://www.fcc.gov/wcb/armis/*.

center, including business opportunities already being captured by competing carriers through the use of UNEs. Although it may provide a more complete picture to measure the number of business lines served by competing carriers entirely over competitive loop facilities in particular wire centers, such information is extremely difficult to obtain and verify. Conversely, by basing our definition in an ARMIS filing required of incumbent LECs, and adding UNE figures, which must also be reported, we can be confident in the accuracy of the thresholds, and a simplified ability to obtain the necessary information.

106. We do not anticipate that "gaming" of the tiers by competitive LECs is likely such that competing carriers will be able to obtain unbundled transport completing routes that would otherwise not be unbundled. Specifically, in theory, a competitive LEC that seeks unbundled transport between, for example, a pair of Tier 1 wire centers (for which there is no unbundled transport requirement) could also collocate in a third wire center classified as Tier 3 to which it can obtain transport from each of the two Tier 1 wire centers, thus using the Tier 3 wire center as a hub. We do not expect that this type of gaming will result from our rules because our tests remove unbundling only where competing carriers have deployed or could deploy transport facilities. Nor do we expect that this type of gaming will result from our rules because of two primary costs constraints. First, the costs of adding a collocation arrangement to serve as a hub are likely to be significant enough to prevent such gaming. Second, such a gaming practice requires an additional span of transport which typically includes distance-sensitive pricing component, likely making the additional transport leg significantly more costly than other direct connection alternatives, including special access services. These factors likely make the additional transport needed to perform this gaming significantly more costly than directly connecting the two Tier 1 wire centers directly through alternative carriers or services.

107. *Other Proposed Indicia of Actual and Potential Competition*. Although we adopt the general structure of our test from commenters including SBC, ALTS, Alpheus, ATX, and the Loop and Transport Coalition, we reject the specific details of these tests.[115]

108. We reject various commenters' proposals that we re-adopt the triggers the Commission adopted in the *Triennial Review Order* for identifying where carriers are impaired.[116] Those triggers were designed primarily to identify where existing competitive transport facilities have been deployed, or are being offered on a wholesale basis.[117] As explained in detail above, the D.C. Circuit rejected the notion that a lack of impairment is limited to the areas where multiple competing carriers already have deployed and, instead, reasoned that the Commission also must make inferences about where competing carriers can deploy as a part of its impairment analysis.[118] The triggers adopted by the Commission in the *Triennial Review Order* are not particularly adaptable to meet the D.C. Circuit's mandate to make inferences about where competitive deployment is possible. Thus, as explained above, we adopt a proxy approach that, unlike the *Triennial Review Order* triggers, relies on objective criteria to which the incumbent LECs have full access, is readily confirmable by competitors, and makes appropriate

[114] *See* BellSouth Padgett Aff. at para. 5 (defining business lines); *see also* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[115] *See generally* SBC Comments at 78-79; ALTS *et al*. Comments at 77-86; Alpheus Comments at 19-27; ATX, Blackfoot, *et al*. Comments at 28-34; Loop and Transport Coalition Comments at 82-86.

[116] *See, e.g.*, New York Department Comments at 13-16; ALTS *et al*. Comments at 84 (proposing the adoption of the *Triennial* triggers as a part of a larger proposal); Alpheus Comments at 50-56.

[117] *See Triennial Review Order*, 18 FCC Rcd at 17229-36, paras. 405-16.

[118] *See supra* Part IV.C.

inferences regarding potential deployment. This approach will significantly reduce the burdens of implementing the standard in comparison with the extensive and litigious proceedings that followed the issuance of the *Triennial Review Order*.[119]

109. AT&T disputes our conclusion that business lines are a useful proxy for the identification of impairment for transport.[120] AT&T initially attacks the use of business lines as a proxy for lack of correlation to the costs of deployment, asserting instead that distance is "the main driver of [a competitor's] deployment cost.[121] But AT&T goes on to explain that "[a] disproportionate number of the largest wire centers in BellSouth's territory are located in the handful of its largest cities."[122] Indeed, we recognize that there are likely many complex factors that impact an individual carrier's decisions to deploy transport, not all of which can be entirely captured by a proxy test administered in a meaningful way at the federal level. However, our test, rather than referring to the absolute costs of deployment, is based on the inferences that can be drawn from actual competitive deployment. This approach therefore implicitly accounts for relevant costs and revenues and inherently captures those locations where carriers have found it economic to deploy transport facilities. We also note that our test addresses distance indirectly by minimizing unbundling on routes connecting relatively close together wire centers. The record indicates that most competitive transport facilities are deployed to the wire centers with the greatest business demand, typically located in the core of the densest cities. Distances between offices are likely to be short, particularly relative to connecting to wire centers in outlying areas.

110. We also reject various indicia that the BOCs assert as useful for identifying where competition for transport exists. While data such as the number of local route miles,[123] lists of fiber wholesalers (without route-based analysis),[124] and counts of "CLEC Networks"[125] may be useful as background to further support claims about the state of competition, we find such figures to be unreliable and unsuitable as triggers to be used in our impairment test. These data are not complete, not representative of the entire industry, not readily confirmable, and aggregated at too high a level to be informative of local market conditions.

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[119] *See, e.g.*, Qwest Teitzel Reply Decl. at paras. 4-10; *see also* MCI Comments at 141 (touting fiber-based collocation as a measurement because "the ILECs have access to all of the data needed . . . without the need for any discovery and without the need to rely on data from state proceedings"); *cf*. Letter from David L. Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 10, 2004) (addressing BOC arguments that AT&T and other competitive LECs refused to provide relevant data in state proceedings).

[120] *See, e.g.*, Letter from David L. Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Attach. at 1-4 (filed Nov. 9, 2004).

[121] *Id*. at 1.

[122] *Id*. at 3 & Attach. 1. We also see similar deployment in Qwest's territory. Qwest Nov. 1, 2004 *Ex Parte* Letter (associating wire centers with MSAs).

[123] BOC UNE Fact Report 2004 at III-4, Table 1.

[124] *Id*. at III-5 through III-6, Tables 2 & 3.

[125] *Id*. at III-8, Figure 1; *id*. at Appendix H. *But see* ALTS *et al.* Reply at 23; NuVox Reply at 2-3.

d. Determinations of Appropriate Thresholds

111. As set forth above, we classify all incumbent LEC wire centers into three tiers based on indicia of the potential revenues and suitability for competitive transport deployment.[126] Tier 1 wire centers are those with the highest likelihood for actual and potential competitive deployment, including wholesale opportunities. Tier 2 wire centers also show a very significant but lesser likelihood of actual and potential competitive deployment. Finally, Tier 3 wire centers are those that show a generally low likelihood of supporting actual or potential competitive transport deployment. In determining these thresholds, we keep in mind that potential revenues for telecommunications services are highly concentrated in a relatively small proportion of wire centers.[127] Thus, the thresholds we choose are designed to capture areas that have or are likely to have significant competitive transport. We describe immediately below the thresholds we adopt to identify these three tiers and explain why these thresholds provide meaningful indicia of both actual and potential transport deployment.

112. *Tier 1 Wire Centers*. We define Tier 1 wire centers as those with four or more fiber-based collocations or with 38,000 or more business lines. We also include in Tier 1 all incumbent LEC switching locations that have no line-side facilities because these locations will not have any business lines, but nevertheless are points of traffic aggregation in the incumbent LECs' networks where competitive LECs are most able to access the revenues sufficient to justify transport deployment.[128] These thresholds signify that very extensive competitive LEC transport deployment exists, or is likely to exist at Tier 1 wire centers. Thus, not only is multiple competitive entry possible, but so too is the likelihood that competitors will provide transport services on a wholesale basis.

113. We select the fiber-based collocation threshold of four for Tier 1 because this threshold indicates that significant revenue potential and deployment exists in the wire center and that wholesale opportunities are likely to exist or develop. Indeed, this threshold is satisfied in the small number of wire centers where a disproportionately high number of business lines are located. It is in these areas that the greatest level of competitive facilities deployment exists. It is also between these wire centers that the greatest level of competitive transport exists or is likely to exist, including intermodal facilities and wholesale opportunities. While four fiber-based collocators indicates a very significant presence of competitive facilities, we find this to be an appropriate threshold, particularly for Tier 1 wire centers. Because routes connecting Tier 1 wire centers are those that show promise of wholesale opportunities, we find that such routes require a better prediction of actual competitive network facilities that are capable of connecting the two wire center end-points. Thus, while we can be confident that the same carriers are likely to be collocated with fiber in multiple incumbent LEC wire centers within a larger geographic area,[129] obviating the need to conduct a "matched-pair" test to confirm that the same carriers actually collocated on each end of a route,[130] we find that setting the threshold at four provides a very reasonable

[126] We note that SBC, ALTS *et al*., Alpheus, ATX, Blackfoot *et al*., and the Loop and Transport Coalition all agree on this general construct. *See generally* SBC Comments at 78-79; ALTS *et al*. Comments at 77-86; Alpheus Comments at 19-27; ATX, Blackfoot, *et al*. Comments at 28-34; Loop and Transport Coalition Comments at 82-86.

[127] *See supra* para. 70.

[128] *See, e.g.*, Qwest Reply at 76 n.220 ("CLECs may collocate at a tandem, and provide service to customers that are served by the wire centers subtending that tandem."); Loop and Transport Coalition Comments at 82. If access tandem switches are located in the same building as line-side switching facilities, then we apply both the fiber-collocation and business line thresholds.

[129] *See supra* para. 97 & note Error: Reference source not found.

[130] *See supra* para. 98.

assurance that at least one (and likely more than one) of the four carriers fiber-collocated at each has a network capable of connecting those two points, or could build such networks.[131] Thus, our Tier 1 thresholds provide a reasonable proxy both for the ability to self-provision, and for where wholesale opportunities are likely to exist or develop.

114. We select the business line threshold of 38,000 for Tier 1 because this threshold indicates a significant likelihood that multiple transport providers can serve that wire center. We choose 38,000 business lines because the record indicates[132] that over two-thirds of wire centers above this threshold have four or more fiber-based collocators.[133] Moreover, even for those wire centers above this business line threshold that do not contain four fiber-based collocators, 78 percent contain three or more fiber-based collocations, 86 percent contain two or more fiber-based collocations, and 95 percent have at least one fiber-based collocator.[134] We find that if this percentage of wire centers can attract such substantial fiber-based collocation, then we believe it is possible that competitors can deploy transport facilities to the remainder of the wire centers above this business line threshold.[135] Thus, this level of facilities deployment signals that significant revenue opportunities exist in wire centers of this size that justify multiple competitive deployment likely to result in facilities-based competition as well as wholesale opportunities.[136]

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[131] *See, e.g.*, MCI Comments at 144; Loop and Transport Coalition Comments at 84-85.

[132] The Commission solicited and analyzed data regarding the relationship between business access line counts and fiber-based collocations in the Bells' wire centers for purposes of establishing the tiers. *See* BellSouth Padgett Aff., Exh. SWP-1 and Exh. SWP-3; SBC Nov. 1, 2004 *Ex Parte* Letter; Verizon Oct. 28, 2004 *Ex Parte* Letter; Qwest Nov. 1, 2004 *Ex Parte* Letter. Because the initial record evidence on this point varied from one BOC to another and did not show evidence of wire centers below 5,000 business lines, the BOCs each filed revised data sets, all based on the same definition of business line, and including all wire centers. *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. We find that the second set of data provided by the BOCs is more reliable, enabling us to make better comparisons across all companies. Accordingly, we base our analysis in this Order on the BOC data received in December.

[133] The data show that about 67% of wire centers with 38,000 business lines or greater have four or more fiber-based collocations—the associated number of fiber-based collocators established, in part, to identify Tier 1 wire centers. The *USTA II* court directed the Commission to draw inferences between similar markets. Therefore, we presume that if 67% of all wire centers that are "alike" in terms of business lines (and thus revenue opportunities) have a given number of fiber-based collocations, the remaining wire centers above this business line threshold could sustain that much competition as well. As explained below, due to the disjunctive application of both business line and fiber-based collocation thresholds, the percent of wire centers comprising Tier 1 that contain greater than four fiber-based collocations is significantly higher than 67%. *See infra* para. 115. At least one party advocates the use of two-thirds as an appropriate level of inference. XO Dec. 8, 2004 Augustino *Ex Parte* Letter at 4-5.

[134] *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[135] Thus, as applied to specific types of transport, we find that it is possible for competing carriers to deploy or otherwise obtain DS1 transport from another such wire center, or, in the case of DS3 and dark fiber transport, that it is possible for competing carriers to deploy or obtain transport between these wire centers and any but the smallest wire centers (defined below as Tier 3 wire centers).

[136] MCI Reply at 103 ("MCI's four fiber-based collocator proposal . . . captures virtually all routes where multiple wholesalers (or even multiple retailers) have already deployed transport, as well as nearly all routes where such deployment is possible."). We note that SBC's proposed business line thresholds are supported by fiber-based

115. In combination, the fiber-based collocation test and the business line test define Tier 1 wire centers. According to the record, Tier 1 wire centers comprise approximately 5.4 percent of all 10,796 BOC wire centers.[137] While such a figure is seemingly small, these Tier 1 wire centers represent approximately 34.2 percent of all business lines served out of all BOC wire centers.[138] Thus, our test identifies the set of incumbent LEC wire centers with the greatest concentration of both competitive deployment and demand characteristics. Moreover, in Tier 1 wire centers, through the disjunctive application of both the fiber-based collocation and business line thresholds, over 90 percent of Tier 1 wire centers contain four or more fiber-based collocations and over 98 percent contain at least one fiber-based collocator.

116. We reject the alternative business line count thresholds proposed by various commenters. BellSouth, Verizon, and SBC propose a threshold of 5,000 business lines, above which they generally suggest the Commission find no impairment.[139] We reject these proposed thresholds as too low to show a correlation to routes on which economic entry generally is possible and particularly where entrants are likely to provide wholesale opportunities.[140] Because these thresholds are closer to our Tier 2 determinations, we address the specifics of these proposals below.

117. While we reject SBC's and BellSouth's proposed thresholds as too low, we reject the ALTS, Alpheus, and the Loop and Transport Coalition proposals as too high. ALTS and Alpheus propose a threshold of 40,000 business lines or more while the Loop and Transport Coalition proposes a threshold of 50,000 business lines or more to satisfy the Tier 1 threshold.[141] Similarly, XO proposes that a top tier

collocation data. SBC Comments at 77.

[137] *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[138] *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[139] BellSouth Comments at 39-43; Verizon Comments at 82; SBC Comments at 78-79. BellSouth proposes that no impairment be found for all routes into or out of a wire center with greater than 5,000 business lines. We reject a significant aspect of BellSouth's and Verizon's proposal *supra* para. 84. SBC proposed three classes of wire centers: those with 10,000 or more business lines; those with 5,000 to 10,000 business lines, and; those with fewer than 5,000 business lines. SBC would find no impairment between two of the largest offices, or on routes connecting a large and a medium class office. SBC Comments at 78-79. Although we reject the specifics of these proposals, we note that we adopt the core concept of these proposals, particularly SBC's, in the test that we adopt.

[140] However, we reject the idea that a wholesale market is required to identify a lack of impairment for DS3 and dark fiber transport, as noted below, because we find that self-provisioning is possible at these capacities.

[141] ALTS *et al*. Comments at 77-86; Alpheus Comments at 20; Loop and Transport Coalition Comments at 82. These proposed thresholds are supported only by vague representations of the carriers, rather than any specific support. For example, these parties characterize routes between such offices as "the very densest traffic routes" in "heavily concentrated [] urban areas" where there is "significant deployment" and "it is reasonable to assume that multiple non-ILECs have or could provide DS3 interoffice transport along routes connecting two [such] wire centers." Loop and Transport Coalition Comments at 82; Alpheus Comments at 19-21; ALTS *et al*. Comments at 81. Alpheus' Reply, however, provide significantly more justification for these numbers. Consistent with our conclusions, Alpheus demonstrates for the Dallas/Fort Worth and Houston areas that wire centers with fewer than 20,000 business lines show little sign of competitive deployment while wire centers with between 20,000 and 40,000 business lines show inconsistent competitive entry and wire centers with greater than 40,000 business lines show a high likelihood of competitive entry. Alpheus Galvan/Maella Reply Decl. at paras. 8-16.

be set at either 50,000 business lines or a combination of wire centers with 35,000 business lines *and* four or more fiber-based collocations.[142] At these levels, there is actual competitive entry in a very high percentage of wire centers; greater than 80 percent of wire centers with 50,000 or more business lines have four or more fiber-based collocators, and there is over a 97 percent chance of at least one fiber-based collocator in such wire centers.[143] While we agree that competitive entry is likely to be greater at these thresholds, we find that our 38,000 business line Tier 1 threshold, particularly when applied in concert with a fiber-based collocation threshold, sufficiently identifies the likelihood of the presence of multiple transport providers, and allows for appropriate inferences about where significant competitive entry is more likely than not. Indeed, as explained above, 90 percent of Tier 1 wire centers have four or more fiber-based collocators while over 98 percent have at least one.[144] At these levels, we find that competitive transport is or can be self-provisioned, and likely obtained on a wholesale basis.

118. *Tier 2 Wire Centers*. We define Tier 2 wire centers as those with three or more fiber-based collocations or with 24,000 or greater business lines. A threshold of three fiber-based collocators establishes that multiple carriers have overcome the costs of deployment in a wire center, signifying that substantial revenues exist in the wire center to justify deployment.[145] Accordingly, we establish a business line threshold of 24,000 business lines because over two-thirds of all wire centers above this threshold have three or more fiber-based collocators, signaling that sufficient revenue opportunities are very likely to exist in such wire centers to justify the provision of competitive transport.[146]

119. In combination, the disjunctive application of the fiber-based collocation threshold and the business line threshold define Tier 2 wire centers. Such wire centers comprise approximately 3.2 percent of the total BOC wire centers, but these wire centers serve approximately 12.6 percent of all BOC business lines.[147] Thus, Tier 2 identifies the set of incumbent LEC wire centers with a very substantial concentration of both competitive deployment and demand characteristics. Further, we note that 66.7

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[142] XO Dec. 8, 2004 Augustino *Ex Parte* Letter.

[143] *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[144] *See supra* para. 115.

[145] *See*, *e.g.*, Alpheus Dec. 2, 2004 *Ex Parte* Letter at 3-4 (asserting that a fiber-based collocator threshold of two, particularly without requiring that the same carriers be collocated on each end of a route, would lead to an "unbalanced" test, weighted too heavily toward potential, rather than actual deployment).

[146] The data show that over 67% of wire centers with 24,000 business lines or greater have three or more fiber-based collocators – the associated number of fiber-based collocators that combine to define Tier 2 wire centers. The *USTA II* court directed the Commission to draw inferences between similar markets. Therefore we find that if 67% of all wire centers that are "alike" in terms of business lines (and thus revenue opportunities) have a given number of fiber-based collocations, the remaining wire centers can potentially sustain similar levels of competition as well. Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter; *see also* XO Dec. 8, 2004 Augustino *Ex Parte* Letter at 4-5.

[147] *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. The numbers provided in the text of this Order indicate the characteristics of the discrete set of Tier 2 wire centers, *i.e.*, those wire centers that satisfy the Tier 2 requirements and also are not Tier 1 wire centers. We note, however, that the combination of Tier 1 and Tier 2 wire centers comprises approximately 8.5% of BOC wire centers, which serve approximately 46.9% of all BOC business lines. *Id*.

percent of these Tier 2 wire centers have three or more fiber-based collocators, 77.8 percent have two or more, and at least one fiber-based collocator is present in 91.8 percent of these wire centers, indicating that competitive deployment is highly likely.[148]

120. We reject the alternative business line count thresholds proposed by various commenters. As noted above, BellSouth, Verizon, and SBC propose a threshold of 5,000 business lines, above which they generally suggest the Commission find no impairment.[149] BellSouth asserts that approximately 72 percent of such offices in its region have one or more fiber-based collocators and that such offices are characterized by significant special access demand.[150] However, our review of the BOC data reveals significant variability in the 5,000 to 24,000 business line range, with a more significant relationship between business lines and fiber-based collocation above the 24,000 business line threshold.[151] Similarly, SBC shows that for offices with 5,000 to 10,000 business lines, only 20 percent have one or more fiber-based collocators, and only five percent have more than two fiber-based collocators.[152] However, above 10,000 business lines, SBC demonstrates that 56 percent of such wire centers have one or more fiber-based collocators.[153] While we find that a significant relationship exists between business line density and competitive transport deployment at higher business line thresholds, we find that this relationship is far less reliable between 5,000 business lines and our 24,000 business line threshold that, in part, defines Tier 2 wire centers.[154] Thus, to the extent that other commenters demonstrate that a 5,000 or 10,000

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[148] *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[149] BellSouth Comments at 39-43; Verizon Comments at 82; SBC Comments at 78-79. BellSouth and Verizon propose that no impairment be found for all routes in or out of a wire center with greater than 5,000 business lines. We reject a significant aspect of BellSouth's and Verizon's proposal *supra* para. 84. SBC proposed three classes of wire centers: those with 10,000 or more business lines; those with 5,000 to 10,000 business lines, and; those with fewer than 5,000 business lines. SBC would find no impairment between two of the largest offices, or between a large and a medium class office. SBC Comments at 78-79. Although we reject the specifics of these proposals, we note that we adopt principles from each proposal, particularly SBC's, in the test that we adopt.

[150] BellSouth Padgett Aff. at Table 1. Based on further review due to the collection of the December 7 wire center data filing, BellSouth recognizes that the total number of BellSouth wire centers used to calculate this table varies slightly, but we note that this does not significantly change the reported percentages. *Cf.* BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter (showing a total of 1583 BellSouth wire centers, as opposed to the 1574 BellSouth wire centers upon which BellSouth calculated its earlier figures). Verizon asserts that 53% of its wire centers with greater than 5,000 business lines have one or more fiber-based collocators while SBC shows that over 41% of its wire centers with greater than 5,000 business lines have one or more fiber-based collocators. Verizon Comments at 82; SBC Comments at 78.

[151] *See* MCI Reply at 100-03 & n.297; MCI Nov. 10, 2004 *Ex Parte* Letter (asserting that, "in many instances," BellSouth's 5,000 business line threshold captures central offices "well outside" of the core areas where competitive fiber has been deployed).

[152] SBC Comments at 78. Based on the aggregated data from all four BOCs, for wire centers with 5,000 to 10,000 business lines, 20% of such wire centers have two or more fiber-based collocators while 44% have at least one. *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[153] SBC Comments at 78.

[154] Our data show that only approximately 31% of these wire centers have two or more fiber-based collocators and less than 56% have one or more fiber-based collocators. *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte*

business line thresholds would result in a high error rate in predicting impairment, we agree.[155] For these reasons, we find that the approach we adopt is appropriate, particularly given the disjunctive application of our two proxies, which allows, for example, wire centers with a low business line count, but with substantial fiber-based collocation, to qualify at Tier 1 and Tier 2 wire centers.

121. We reject the BOC proposals solely to reach conclusions of no impairment by wire center where there is evidence of only one fiber-based collocator.[156] In the absence of other indicia that competitive entry is feasible, the presence of one fiber-based collocator constitutes insufficient evidence of competitors' non-impairment. Although our test does identify some offices as Tier 1 or Tier 2 that have only one, or even no, fiber-based collocators, those offices possess characteristics that allows us to infer that competitive entry is more likely than in other offices – namely a significant number of business lines indicating the presence of significant potential revenues. Similarly, we reject the assertions by various commenters that in wire centers with only one fiber-based collocator, or no fiber-based collocators, requesting carriers are always impaired without access to unbundled transport.[157] As we just explained, by defining wire center tiers according to two indicia, we are able to identify those wire centers where competition is likely based on potential revenues, even if actual deployment is not evidenced through our fiber-collocation test. We find that this approach more properly accounts for potential competition in wire centers with very few or no fiber-based collocators.

122. We reject various competitive LEC proposals for identifying middle-tier wire centers. Both ALTS and Alpheus propose the application by the Commission of the triggers set forth in the *Triennial Review Order*, while the Loop and Transport Coalition proposes a similar, but slightly different standard.[158] These proposals are focused too closely on actual deployment and actual wholesale availability, rather than the ability to self-deploy and the likelihood of wholesale alternatives. The Loop and Transport Coalition, for instance, proposes a standard that apparently is even more demanding than the test proposed by the Commission in the *Triennial Review Order* – that five carriers each must have fiber-based collocations on both ends of the route and at least two of the five must certify that they offer wholesale transport between the two points.[159] Thus, we disagree in part with the general competitive LEC advocacy that would have us find that a market has or is likely to have a competitive wholesale market for transport before we may find a lack of impairment for DS3 and dark fiber transport.[160]

123. *Tier 3 Wire Centers*. We define Tier 3 wire centers as all those that are not Tier 1 or Tier 2 wire centers. These offices are characterized by very low potential revenues, as indicated by two or fewer fiber-based collocators *and* a low number of business lines. In these wire centers, there is little evidence that competitors could justify the high costs and barriers to deploy transport facilities to serve these offices. We recognize that this definition may be slightly over-inclusive, including wire centers where

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Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. Comments by MiCRA explain the variability at these low business line thresholds. MiCRA Reply at para. 41.

[155] *See, e.g.*, MiCRA Pelcovitz/Fentrup Reply Decl. at paras. 33-40.

[156] *See* BellSouth Comments at 40; SBC Comments at 78; Verizon Comments at 82.

[157] *See, e.g.*, MCI Reply at 100-04.

[158] ALTS *et al*. Comments at 84; Alpheus Comments at 25; Loop and Transport Coalition Comments at 84.

[159] Loop and Transport Coalition Comments at 84.

[160] *See, e.g.*, MiCRA Pelcovitz/Fentrup Reply Decl. at para. 42; AT&T Reply at 48 (asserting that a test for DS3 transport must measure "*actual* wholesalers") (emphasis in original).

there is actual competition that is not dependent on fiber-based collocations and that survives even in the absence of significant general demand. Nevertheless, because our decisions and inferences are based on actual competitive deployment, we are confident that the thresholds that define the Tier 3 wire centers accurately measure where impairment is most likely to exist.

124. We reject the various competitive LEC proposed business line thresholds below which they suggest we find impairment without question. The Loop and Transport Coalition supports a finding of non-rebuttable impairment for all routes that have one end-point in a wire center serving fewer than 25,000 business lines.[161] Similarly, Alpheus proposes a non-rebuttable finding of impairment for routes between two wire centers with fewer than 20,000 business lines.[162] Meanwhile, ALTS proposes a non-rebuttable finding of impairment for routes connecting two wire centers with fewer than 10,000 business lines in the top 50 MSAs, or between any routes outside the top 50 MSAs.[163] Unlike the approach we adopt here, these proposals fail entirely to account for offices that house a significant number of actual fiber-based collocators, notwithstanding a relatively low number of business lines. While we adopt a Tier 2 threshold of 24,000 business lines, which is not substantially different than some of these proposals, and is even higher than some, we find that our inquiry should not and does not stop there. That is why we also apply a fiber-based collocation test to identify wire centers below our 24,000 business line threshold that nevertheless show significant competitive fiber deployment and that we include in our definition of Tier 2.

3. Application to Record Evidence of Deployment

125. As discussed above, we continue to analyze transport facilities according to the capacity and type of transport at issue. Thus, we apply our proposed test differently according to capacity level and type of transport.

a. DS1 Transport

126. We find that requesting carriers are impaired without access to DS1-capacity transport on all routes except those connecting two Tier 1 wire centers. Thus, incumbent LECs are obligated to provide unbundled DS1 transport that originates or terminates in any Tier 2 or Tier 3 wire center, but are not obligated to provide unbundled DS1 transport on routes connecting two Tier 1 wire centers. In the *Triennial Review Order*, the Commission found that "competing carriers generally cannot self-provide DS1 transport" and that "[a] carrier requiring only DS1-capacity transport between two points typically does not have a large enough presence along a route (generally loop traffic at a central office) to justify incurring the high fixed and sunk costs of self-providing just that DS1 circuit."[164] At the same time, the Commission found that while "DS1 transport is not generally made available on a wholesale basis," it was "our predictive judgment that wholesale provision of DS1 transport will develop as technology improvements make wholesale provision of DS1 circuits economic such that carriers have an incentive to invest in the equipment necessary to provide this capacity service."[165] Indeed, for these reasons, the Commission chose to differentiate DS1 transport from higher-capacity transport by applying only the

[161] Loop and Transport Coalition Comments at 83.

[162] Alpheus Comments at 22.

[163] ALTS *et al*. Comments at 81.

[164] *Triennial Review Order*, 18 FCC Rcd at 17222, para. 391.

[165] *Id*. at 17222-23, para. 392.

"wholesale provisioning" test, and not the "self-provisioning" test to DS1 capacity transport.[166] The current record warrants no fundamental departure from this reasoning. Even after several states have conducted a review of alternatives to DS1 transport facilities, on very few routes were wholesale alternatives discovered, and even those were found only in the most competitive markets.[167] Nevertheless, where alternatives to the incumbent LEC's network are available, or are likely to be available, we find that carriers are not impaired without access to the incumbent LEC's transport. Thus, we do not impose on incumbent LECs an unbundling obligation for DS1 transport where we can reasonably infer that alternative wholesale transport services exist or are likely to exist.

127. We reach our conclusion because we find that alternative wholesale transport opportunities at the DS1 level are likely to exist or develop between two such offices. As described above, Tier 1 wire centers are those characterized by very significant competitive facilities presence or potential, as measured by fiber-based collocation and business lines. Between a pair of wire centers, each with very significant competitive facilities deployment or high business line counts, we infer that alternative transport services exist, or could exist, and will likely provide a wholesale alternative to the incumbent LEC's transport facilities. Even in the absence of a wholesale alternative, we find that the presence of such a sufficient number of competitive facilities will protect the interests of end-users. We find that the high level of competitive entry at Tier 1 wire centers signals a lack of impairment, even for DS1 transport facilities for which we find, without additional traffic to aggregate, carriers are unlikely themselves to deploy such facilities. However, where DS1 facilities are or are likely to be available from competitors on a wholesale basis, we find that competing carriers are not impaired without access to these facilities from the incumbent LEC.

128. *Limitation on DS1 Transport*. On routes for which we determine that there is no unbundling obligation for DS3 transport, but for which impairment exists for DS1 transport, we limit the number of DS1 transport circuits that each carrier may obtain on that route to 10 circuits. This is consistent with the pricing efficiencies of aggregating traffic. While a DS3 circuit is capable of carrying 28 uncompressed DS1 channels, the record reveals that it is efficient for a carrier to aggregate traffic at approximately 10 DS1s.[168] When a carrier aggregates sufficient traffic on DS1 facilities such that it effectively could use a DS3 facility, we find that our DS3 impairment conclusions should apply.

b. DS3 Transport

129. We conclude that requesting carriers are not impaired without access to unbundled DS3 transport on routes connecting wire centers where both of the wire centers are either Tier 1 or Tier 2 wire centers. Thus, incumbent LECs are obligated to provide unbundled DS3 transport that originates or terminates in any Tier 3 wire center, but are not obligated to provide unbundled DS1 transport on routes

[166] *Id.*

[167] QSI Study at 15-21. *But see* BellSouth Reply at 30-31; Verizon Reply at 61-63; Verizon Reply, Reply Declaration of Lynn W. Walker (Verizon Walker Reply Decl.) at paras. 3-27; Declaration of Scott J. Alexander and Rebecca L. Sparks, *in* Letter from Christopher M. Heimann, General Attorney, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (Nov. 16, 2004).

[168] *See, e.g.*, Mountain Telecommunications Comments at 5-6 (explaining that in Arizona, an average 13 mile DS1 transport link costs $48.21 per month while an average 13 mile DS3 transport link costs $425.70, creating a cut over point at 8.83 DS1 channels); Integra Comments at 36 & Table 9 (based on average DS1 and DS3 UNE transport pricing in Qwest territory in Oregon, "it makes economic sense for Integra to purchase a DS-3" . . . "where 8 DS-1s are needed"); Lightship Gawlick Decl. at paras. 2, 13 & Attach. 1 (claiming that a 10.37 cut over point results from the average DS1 and DS3 UNE transport prices provided by Lightship which characterizes the data set as "a representative set of interoffice transport lines in our states," which include Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont).

connecting any combination of Tier 1 and Tier 2 wire centers. Just as the Commission determined in the *Triennial Review Order*, competing carriers continue to face high fixed and sunk costs in deploying transport facilities.[169] The initial cost of deploying a transmission facility does not vary significantly with capacity because much of the cost of the facility is related to the deployment itself, such as the costs associated with pulling fiber through conduit, trenching, or attaching fiber to poles.[170] Thus, carriers must have existing and expected scale economies sufficient to justify the costs of deployment. However, the need for DS3 capacity transport indicates that a carrier is aggregating a substantial amount of traffic from end users, and based on existing and predicted capacity requirements, such traffic sometimes is sufficient to justify transport facilities deployment.[171] Therefore, due to the potential revenues available at the DS3 level, we find that scale economies sometimes are sufficient to recover the fixed and sunk costs of deploying transport facilities. Just as the Commission did in the *Triennial Review Order*, we make this determination based on the high fixed and sunk costs associated with self-providing transport and evidence that competing carriers can begin to overcome these obstacles at this transmission level when transporting traffic between certain offices. Thus, we do not impose on incumbent LECs an unbundling obligation for DS3 transport where competitive LECs have deployed, or likely are able to deploy alternative transport facilities.

130. We conclude that requesting carriers are not impaired without access to unbundled DS3 transport on routes connecting wire centers where one or both of the wire centers classifies as either a Tier 1 or Tier 2 wire center because we find that competitive transport facilities have been or can be deployed between such wire centers. Tier 2 wire centers are characterized by the significant revenue opportunities they offer, as evidenced either by fiber-based collocation or by business line density. The significant revenue opportunities at both ends of such routes make it highly likely that competing carriers have deployed or can deploy in an economic manner transport to link such wire centers. Conversely, where one end of a route is a Tier 3 wire center, we cannot infer that carriers are not impaired in serving the route between these wire centers – a link that necessarily requires sufficient opportunities to originate and terminate traffic at both ends of the route. Thus, for all routes with at least one end point classified as a Tier 3 wire center, we find that competing carriers are impaired without access to DS3 transport.

131. *Limitation on DS3 Transport*. On those routes for which we find impairment for DS3s, we limit the availability of DS3 transport. Although we find that sufficient revenue opportunities generally are not available to justify the deployment of competitive transport facilities on these routes, we nevertheless establish a safeguard to limit access to a carrier that has attained a significant scale on such a route indicating that more than sufficient potential revenues exist to justify deployment, we find no impairment. We give effect to this distinction, as we did in the *Triennial Review Order*, by establishing a limitation of 12 DS3s per carrier for any route on which carriers are not impaired.[172]

132. Although we find that this capacity limitation is useful as a safeguard, we reject AT&T's proposal to use this as the only limit on DS3 availability. AT&T proposes that a cap of 12 DS3s serve as the only limitation on DS3 transport access on a nationwide basis.[173] AT&T's proposal would miss identifying many locations where competing carriers have successfully duplicated the incumbent LEC's network.

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[169] *Triennial Review Order*, 18 FCC Rcd at 17217-19, paras. 386-87.

[170] *See supra* paras. 69-77.

[171] A DS3 circuit has the equivalent capacity to 672 voice-grade loops or 28 DS1 loops.

[172] *Triennial Review Order*, 18 FCC Rcd at 17219-20, para. 388.

[173] AT&T Comments at 42-50.

c. Dark Fiber Transport

133. We find that competing carriers are not impaired without access to unbundled dark fiber transport on routes connecting wire centers where both of the wire centers are classified as either a Tier 1 or Tier 2 wire center because we recognize that competitive transport facilities have been or can be deployed between such wire centers. As the Commission has described in previous orders, dark fiber is fiber optic cable that has been deployed by a carrier but has not yet been activated through connections to optronics that "light" it, and thereby render it capable of carrying communications.[174] Once activated, dark fiber transport is used by carriers for the same purposes as lit dedicated transport. Just as we did in the *Triennial Review Order*, we make our determination of impairment based on the high sunk costs associated with deploying fiber facilities, including dark fiber.[175] We find that, aside from those routes for which we make non-impairment determinations, carriers are impaired in their ability to self-provision the transmission facility itself, but are not impaired by the costs of collocation and electronics necessary to activate dark fiber. We also reaffirm the Commission's previous conclusions in the *Triennial Review Order* that pertain to state efforts to clarify processes and limitations on access to dark fiber.[176]

134. We must weigh the benefits of unbundling dark fiber, as described above, against the costs of unbundling. All parties apparently agree that dark fiber UNEs can be and are activated at very high capacity levels, including capacity levels for which we find no impairment for typical "lit" transport. Incumbent LECs claim that unbundling dark fiber facilities that enable such high bandwidth communications defeats any incentives that competing carriers have to deploy their own transmission fiber.[177] The record indicates, however, that dark fiber transport (like all fiber transport) can, in some circumstances, be self-provisioned or obtained on a wholesale basis from carriers other than the incumbent LEC. Therefore, the test we adopt in this Order results in no unbundling where the record reveals that a reasonably efficient competitor has, or could, duplicate the facilities of the incumbent LEC. The record indicates that competing carriers that use UNE dark fiber transport actively seek out wholesale alternatives to the incumbent LEC's fiber facilities.[178] Moreover, the test we adopt forces competing carriers to find alternative facilities in the areas where competitors have deployed or could deploy such facilities. Furthermore, carriers are capable of activating dark fiber when they have aggregated sufficient revenues from traffic to justify the deployment of extensive optronics, but even at such revenue levels, sometimes carriers have not achieved sufficient revenues to justify the high expense of fiber deployment.

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[174] *Triennial Review Order*, 18 FCC Rcd at 17213-14, para. 381.

[175] As we found in the *Triennial Review Order*, a substantial part of the costs of deploying transport facilities is in the sunk cost of burying, or otherwise deploying the fiber, such as obtaining rights-of-way, digging up streets or attaching cabling to poles. *Id*. at 17214, para. 382.

[176] *Id*. at 17216-17, para. 385 (describing state "flexibility to establish reasonable limitations and technical parameters for dark fiber unbundling" as well as processes for obtaining access to dark fiber) (internal quotations omitted).

[177] *See* SBC Comments at 73-76; Letter from Thomas F. Hughes, Vice President – Federal Regulatory, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 7, 2004); Letter from Edwin J. Shimizu, Director – Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 3, 2004) (Verizon Dec. 3, 2004 Shimizu Dark Fiber *Ex Parte* Letter).

[178] *See, e.g.*, Alpheus Galvan/Maella Decl. at paras. 21-25.

135. We find that dark fiber allows for very efficient use of facilities that incumbent LECs have already deployed but that would otherwise lay fallow.[179] The record indicates that most incumbent LEC interoffice facilities had been replaced with fiber prior to the 1996 Act.[180] The record also indicates that competing carriers using unbundled dark fiber transport can operate more efficiently than when using lit transport, because the competing carrier itself engineers and controls the network capabilities of transmission and can maximize the use of previously dormant fiber.[181] We agree that dark fiber allows competing carriers to provide service without incurring the high sunk costs of self-deployment, especially when the fiber is not being used by the incumbent LEC. Competing carriers assert that use of dark fiber also prevents the unnecessary excavation of the streets that would be necessary if competitors were required to lay their own alternative fiber.[182] Commenters also argue that unbundled dark fiber users must still deploy significant facilities, including optronic equipment and collocation arrangements in incumbent LEC offices, in order to light the dark fiber and connect it to their own networks.[183] We find that this investment advances the facilities deployment goals of the Act.[184]

D. Entrance Facilities

136. In the *Local Competition Order*, the Commission defined dedicated transport as:

> incumbent LEC transmission facilities dedicated to a particular customer or carrier that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers.[185]

The Commission reaffirmed this definition, which encompassed entrance facilities (the transmission facilities that connect competitive LEC networks with incumbent LEC networks), in the *UNE Remand Order*.[186] In the *Triennial Review Order*, we revised the definition of dedicated transport to exclude

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[179] *See Triennial Review Order*, 18 FCC Rcd at 17215, para. 383; *see also* Alpheus Comments at 11, 15-16. *But see* Verizon Dec. 3, 2004 Shimizu Dark Fiber *Ex Parte* Letter at 3.

[180] AT&T asserts that "[b]y 1996, [the Bells] had transitioned almost 94% of [working interoffice] facilities to fiber." AT&T Reply, Attach. B, Reply Declaration of Anthony Fea (AT&T Fea Reply Decl.) at para. 4.

[181] *Triennial Review Order*, 18 FCC Rcd at 17216-17, para. 385; Alpheus Comments at 11-12; Alpheus Galvan/Maella Decl. at paras. 9-12.

[182] *Cf.* Alpheus Galvan/Maella Decl. at paras. 104-23 (describing some of the restrictions various municipalities have imposed to reduce the impact of fiber conduit trenching). However, we note that the Act does not allow us to assess the most efficient use of the incumbent LEC network; rather, our inquiry starts and stops with section 251 and its focus on impairment.

[183] *See, e.g.*, Alpheus Comments at 14-15; *see also Triennial Review Order*, 18 FCC Rcd at 17213-16, paras. 381-84.

[184] While it could be argued that permitting use of unbundled dark fiber acts as a disincentive to alternative transport deployment by allowing competing carriers to obtain the fiber transport without incurring sunk costs that a self-deploying carrier would incur, we find that, through the application of our triggers, any disincentive effect is minimized.

[185] *Local Competition Order*, 11 FCC Rcd at 15718, para. 440.

[186] *UNE Remand Order*, 15 FCC Rcd at 3842, paras. 322-23.

entrance facilities.[187] We determined that entrance facilities "exist *outside* the incumbent LEC's local network" and should therefore – given section 251's focus on competition within the local network – be excluded from the definition of dedicated transport.[188] We also limited the definition of dedicated transport to "those transmission facilities connecting incumbent LEC switches and wire centers within a LATA."[189] Reviewing the *Triennial Review Order*, the *USTA II* court indicated that our exclusion of entrance facilities from the definition of dedicated transport was at odds with the definition of "network element" found in section 153(29) of the Act.[190] Specifically, the court found that we erred in excluding these facilities from the definition of dedicated transport for purposes of implementing the section 251 unbundling obligation.[191] The court noted, moreover, that "[i]f entrance facilities are correctly classified as 'network elements,' an analysis of impairment would presumably follow."[192]

137. The *USTA II* court did not reject our conclusion that incumbent LECs need not unbundle entrance facilities, only the analysis through which we reached that conclusion.[193] In response to the court's remand, we reinstate the *Local Competition Order* definition of dedicated transport to the extent that it included entrance facilities, but we find that requesting carriers are not impaired without unbundled access to entrance facilities.[194]

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[187] *Triennial Review Order*, 18 FCC Rcd at 17203-04, para. 366. We also determined in the *Triennial Review Order* that our decision with respect to entrance facilities applied to transmission facilities connecting mobile wireless carriers' networks with incumbent LECs' networks, and that wireless carriers were therefore not entitled to unbundled access to these facilities. *Id.* at 17206, para. 368. Because we now conclude that wireless carriers may not obtain UNEs solely to provide mobile wireless service, we find it unnecessary to reconsider whether facilities linking wireless and incumbent LEC networks are properly considered entrance facilities. *See supra* para. 36.

[188] *Triennial Review Order*, 18 FCC Rcd at 17203-04, para. 366 (emphasis in original).

[189] *Id.* at 17202, para. 365.

[190] *USTA II*, 359 F.3d at 585-86; *see also* 47 U.S.C. § 153(29) (defining "network element" as "a facility or equipment used in the provision of a telecommunications service").

[191] *USTA II*, 359 F.3d at 585-86. We do not interpret the court's decision to mean that we have no discretion to refine the statutory definition of "network element" for purposes of unbundling under section 251(c)(3). As we noted in the *Triennial Review Order*, the Act "does not provide guidance on which transmission facilities should be included in the definition of the transport network element." *Triennial Review Order*, 18 FCC Rcd at 17203, para. 366.

[192] *USTA II*, 359 F.3d at 585-86.

[193] In fact, the court expressed skepticism that incumbent LECs should be required to build entrance facilities under any circumstances. *Id.* at 586.

[194] We reject suggestions that we define entrance facilities as a new UNE, Alpheus Comments at 68-69, or as a member of the "loop" family, *id.* at 71; ATX, Bayring, *et al*. Reply at 48. Because the traffic aggregation potential inherent in entrance facilities more closely resembles that associated with dedicated transport, we reject these arguments and consider these facilities to be a type of transport. In any event, the distinction has no practical significance, because our analysis here does not rely in any way on our treatment of other loop or transport elements. Several commenters have argued that we should revise the definition of dedicated transport to replace the references to a requesting carrier's "wire center" and "switch" with the term "location," to ensure that the definition does not exclude non-switched services, particularly data services. Alpheus Comments at 72-73; ATX, Blackfoot, *et al*. Comments at 48-49. Because these commenters have supplied no evidence that otherwise-qualified data service providers have been unable to obtain unbundled transport under the definition we re-adopt today, and because in any case we make a national finding of non-impairment with respect to entrance facilities, we reject this proposal.

138. As the court suggested, we now conduct an impairment analysis with respect to entrance facilities and find that the economic characteristics of entrance facilities that we discussed in the *Triennial Review Order* support a national finding of non-impairment.[195] Specifically, entrance facilities are less costly to build, are more widely available from alternative providers, and have greater revenue potential than dedicated transport between incumbent LEC central offices. As we noted in the *Triennial Review Order*, entrance facilities are used to transport traffic to a switch and often represent the point of greatest aggregation of traffic in a competitive LEC's network.[196] Because of this aggregation potential, entrance facilities are more likely than dedicated transport between incumbent LEC offices to carry enough traffic to justify self-deployment by a competitive LEC.[197] Moreover, competitive LECs have a unique degree of control over the cost of entrance facilities, in contrast to other types of dedicated transport, because they can choose the location of their own switches.[198] For example, they can choose to locate their switches close to other competitors' switches, maximizing the ability to share costs and aggregate traffic, or close to transmission facilities deployed by other competitors, increasing the possibility of finding an alternative wholesale supply.[199] In addition, they often can locate their switches close to the incumbent LEC's central office, minimizing the length and cost of entrance facilities.[200]

139. The record in this proceeding also demonstrates that competitive LECs are increasingly relying on competitively provided entrance facilities. BellSouth notes, for example, that between October 2003 and September 2004, 10 percent to 20 percent of the entrance facilities it had provided to competitive LECs were replaced by facilities obtained from other sources.[201] Verizon states that between early 2003 and mid-2004, it migrated more than 32,000 entrance facility circuits to non-Verizon facilities.[202] No commenters in this proceeding have disputed this evidence, which indicates that

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[195] When the Commission last conducted an impairment analysis for entrance facilities, in the *UNE Remand Order*, the Commission concluded that competitive LECs were impaired without unbundled access to entrance facilities. *UNE Remand Order*, 15 FCC Rcd at 3851-52, paras. 347-48. The Commission found the record lacking in evidence that "the competitive entrance facility market is providing requesting carriers with effective alternatives to unbundled transport for all, or substantially all of the routes requesting carriers would need in order to provide the services they seek to offer." *Id.* at 3852, para. 348. At the same time, however, the Commission noted that "the entrance facility market appears to be the most mature segment of the interoffice transport market, and thus may, in some situations, provide requesting carriers with effective alternatives to unbundled transport for certain point-to-point routes." *Id*.

[196] *See Triennial Review Order*, 18 FCC Rcd at 17204-05, para. 367.

[197] *Id*. As described more fully below, the record contains evidence that competitive LECs are steadily deploying their own entrance facilities, or obtaining them from third-party providers, to replace entrance facilities formerly obtained from incumbent LECs. *See* Verizon Comments at 80-81; Verizon Comments, Attach. F, Declaration of Mohit Patel (Verizon Patel Decl.) at para. 15; BellSouth Comments at 54.

[198] *Triennial Review Order*, 18 FCC Rcd at 17204-05, para. 367.

[199] *Id.* at 17204-05, para. 367. The record contains evidence that competitive LECs are able to obtain entrance facilities from third-party providers. *See* NuVox Comments, Exh. A, Declaration of Keith Coker (NuVox Coker Decl.) at para. 3 ("[W]here available, NuVox utilizes third-party providers for backhaul from NuVox collocation arrangements to NuVox switches.")

[200] *Triennial Review Order*, 18 FCC Rcd at 17204-05, para. 367. The record indicates that entrance facilities tend to be much shorter in length than transport facilities between two incumbent LEC offices. AT&T Comments at 47-48, 52.

[201] BellSouth Comments at 54 & BellSouth Padgett Aff. at para. 39.

[202] Verizon Comments at 81 & Verizon Patel Decl. at para. 15.

wholesale alternatives to entrance facilities provided by incumbent LECs are widely available. And it appears that incumbent LECs and competitors alike continue to agree that entrance facilities are more competitively available than other types of dedicated transport.[203]

140. We note in addition that our finding of non-impairment with respect to entrance facilities does not alter the right of competitive LECs to obtain interconnection facilities pursuant to section 251(c)(2) for the transmission and routing of telephone exchange service and exchange access service.[204] Thus, competitive LECs will have access to these facilities at cost-based rates to the extent that they require them to interconnect with the incumbent LEC's network.

141. The evidence described above convinces us that competitive LECs are not impaired without access to entrance facilities.[205] We also conclude that it would be inappropriate to apply the same impairment test to entrance facilities that we have adopted for other types of dedicated transport.[206] As we have explained, entrance facilities are characterized by unique operational and economic characteristics that justify separate treatment: they are less costly to build, are more widely available from alternative providers, and have greater revenue potential than dedicated transport between incumbent LEC central offices.[207] For these reasons, we do not apply our test for other types of dedicated transport to entrance facilities.

E. Transition Plan

142. Because we remove significant dedicated transport unbundling obligations, as described above, we find it prudent to establish a plan to facilitate the transition from UNEs to alternative transport options, including special access services offered by the incumbent LECs.[208] Specifically, for DS1 and

[203] *See, e.g.*, AT&T Comments at 52 (indicating that "almost all competitively deployed transport links are entrance facilities") (emphasis removed); Verizon Comments at 40-41; Verizon Comments, Attach. E, Declaration of Claudia P. Cuddy (Verizon Cuddy Decl.) at paras. 4-16 (describing Verizon's success in finding non-incumbent LEC providers of entrance facilities outside its region); *see also Triennial Review Order*, 18 FCC Rcd at 17205, para. 367 & n.1122.

[204] *Triennial Review Order*, 18 FCC Rcd at 17204, para. 366.

[205] We find no justification in the record for making entrance facilities available on a transitional basis, as ALTS suggests, until carriers have achieved sufficient volumes to make self-deployment efficient. ALTS *et al*. Comments at 90. As we explained above, the record shows that self-deployment or alternative wholesale provisioning of entrance facilities are viable alternatives given the possibilities for traffic aggregation and efficient location of competitive LEC switches. These factors demonstrate that requesting carriers are able to enter the market on an economic basis without unbundled access to entrance facilities, and we therefore decline to require such unbundling.

[206] *See Triennial Review Order*, 18 FCC Rcd at 17204, para. 367 ("[T]he economics of dedicated facilities used for backhaul between networks are sufficiently different from transport within an incumbent LEC's network that our analysis must adequately reflect this distinction.") We thus reject commenters' suggestions that entrance facilities should be subject to the same test that applies to dedicated transport between incumbent LEC facilities. *See* AT&T Comments at 50-52; Loop-Transport Coalition Comments at 87; ATX, Bayring, *et al*. Reply at 48; McLeod Reply at 37.

[207] *See* AT&T Comments at 32 (noting that entrance facilities, compared to other transmission facilities, are better suited to self-deployment because they involve "enormous traffic" and "very short distances").

[208] To the extent that a particular dedicated transport facility no longer subject to unbundling pursuant to section 251(c)(3) has been used as part of an EEL, our existing rules governing conversions and commingling apply. *See Triennial Review Order*, 18 FCC Rcd at 17348-50, paras. 585-89 (conversions); *id*. at 17342-48, paras. 579-84

DS3 dedicated transport we adopt a twelve-month plan for competing carriers to transition to alternative facilities or arrangements, including self-provided facilities, alternative facilities offered by other carriers, or special access services offered by the incumbent LEC. As discussed below, we find it is appropriate to adopt a longer, eighteen-month transition plan for dark fiber transport. These transition plans shall apply only to the embedded customer base, and do not permit competitive LECs to add new dedicated transport UNEs pursuant to section 251(c)(3) where the Commission determines that no section 251(c) unbundling requirement exists.[209]

143. We believe it is appropriate to adopt a longer transition period for DS1 and DS3 dedicated transport than was proposed in the *Interim Order and NPRM*,[210] because we find that the twelve-month period provides adequate time for both competitive LECs and incumbent LECs to perform the tasks necessary to an orderly transition, including decisions concerning where to deploy, purchase, or lease facilities.[211] Consequently, carriers have twelve months from the effective date of this Order to modify their interconnection agreements, including completing any change of law processes. At the end of the twelve-month period, requesting carriers must transition the affected DS1 or DS3 dedicated transport UNEs to alternative facilities or arrangements.

144. Because incumbent LECs generally do not offer dark fiber as a tariffed service regulated under sections 201 and 202 of the Act,[212] and because it may take time for competitive LECs to negotiate IRUs or other arrangements with incumbent or competitive carriers, we find that a more lengthy transition plan is warranted for transitioning carriers from the use of UNE dark fiber to alternative facilities.[213] Moreover, we find that "lit" DS3 or OCn services are sufficiently different from dark fiber not to qualify as a ready substitute.[214] Because incumbent LECs offer no tariffed service comparable to dark fiber, we find that, if no impairment is found for a particular route on which a competitive LEC utilizes unbundled dark fiber, the risk of service disruption is significantly higher than for DS3 and DS1 unbundled transport, for which comparable service offerings are available under tariff. The record reveals that, even under ideal situations, deploying fiber transport facilities can take up to several years.[215] For these reasons, we adopt an eighteen-month transition period for dark fiber transport facilities similar to the twelve-month transition period that we adopt for DS1 and DS3 transport.[216] We expect that the

(commingling).

[209] We recognize that some dedicated transport facilities not currently subject to the nonimpairment thresholds established in this Order may meet those thresholds in the future. We expect incumbent LECs and requesting carriers to negotiate appropriate transition mechanisms for such facilities through the section 252 process.

[210] *See Interim Order and NPRM*, 19 FCC Rcd at 16799, para. 29 (proposing a six-month period).

[211] *See, e.g.*, ALTS *et al*. Comments at 70-72 & n.113 (discussing the steps carriers must take to transition away from unbundled incumbent LEC transmission facilities).

[212] *See* 47 U.S.C. §§ 201, 202.

[213] Alpheus Comments at 57, 66; Alpheus Reply at 29.

[214] *See, e.g.*, Alpheus Comments at 66.

[215] *Id*. at 61.

[216] Thus, for dark fiber transport, carriers have eighteen months from the effective date of this Order to modify their interconnection agreements, including completing any change of law processes. At the end of the 18-month period, requesting carriers must transition the affected dark fiber dedicated transport UNEs to alternative facilities or arrangements.

extra time will be sufficient to allow carriers the time necessary to migrate to alternative fiber arrangements, including self-deployed fiber.

145. We do, however, adopt the *Interim Order and NPRM*'s proposal regarding transition pricing of unbundled dedicated transport facilities for which the Commission determines that no section 251(c) unbundling requirement exists.[217] Thus, during the relevant transition period, any dedicated transport UNEs that a competitive LEC leases as of the effective date of this Order, but for which the Commission determines that no section 251(c) unbundling requirement exists, shall be available for lease from the incumbent LEC at a rate equal to the higher of (1) 115 percent of the rate the requesting carrier paid for the transport element on June 15, 2004, or (2) 115 percent of the rate the state commission has established or establishes, if any, between June 16, 2004 and the effective date of this Order, for that transport element.[218] We believe that the moderate price increases help ensure an orderly transition by mitigating the rate shock that could be suffered by competitive LECs if TELRIC pricing were immediately eliminated for these network elements, while at the same time, these price increases, and the limited duration of the transition, provide some protection of the interests of incumbent LECs in those situations where unbundling is not required.[219] Of course, the transition mechanism adopted here is simply a default process, and pursuant to section 252(a)(1), carriers remain free to negotiate alternative arrangements superseding this transition period. The transition mechanism also does not replace or supersede any commercial arrangements carriers have reached for the continued provision of transport facilities or services.

VI. HIGH-CAPACITY LOOPS

A. Summary

146. In this section, we apply section 251(d)(2)(B) to incumbent LECs' DS1, DS3, and dark fiber loops, consistent with the requirements of *USTA II*. Specifically, we evaluate a requesting carrier's ability to utilize third-party alternatives to high-capacity loops, or to self-deploy such loops, to serve particular locations in an economic manner. Based on the evidence in the record, we make the following determinations:

- *DS3 Loops.* We find that requesting carriers are impaired without access to DS3-capacity loops at any location within the service area of an incumbent LEC wire center containing fewer than 38,000 business lines or fewer than four fiber-based collocators. Thus, requesting carriers are not impaired without access to DS3-capacity loops at any location within the service area of a wire center containing 38,000 or more business lines and four or more fiber-based collocators.

- *DS1 Loops.* We find that requesting carriers are impaired without access to DS1-capacity loops at any location within the service area of an incumbent LEC wire center containing fewer than 60,000 business lines or fewer than four fiber-based collocators. Thus, requesting carriers are not

[217] These transitional pricing requirements apply to DS1, DS3, and dark fiber dedicated transport links alike.

[218] *Interim Order and NPRM*, 19 FCC Rcd at 16797-99, para. 29. These prices apply to both lit and dark fiber transport. To the extent that a state public utility commission order raises some rates and lowers others for dedicated transport, the incumbent LEC may adopt either all or none of these dedicated transport rate changes. Dedicated transport facilities no longer subject to unbundling shall be subject to true-up to the applicable transition rate upon the amendment of the relevant interconnection agreements, including any applicable change of law processes.

[219] *See Interim Order and NPRM*, 19 FCC Rcd at 16799, para. 30.

impaired without access to DS1-capacity loops at any location within the service area of a wire center containing 60,000 or more business lines and four or more fiber-based collocators.

- *Dark Fiber Loops.* We find that requesting carriers are not impaired without access to unbundled dark fiber loops in any instance.

B. Background

147. As the Commission explained in the *Triennial Review Order*, loops are the transmission facilities between a central office and the customer's premises, *i.e.*, "the last mile" of a carrier's network that enables the end-user to originate and receive communications.[1] In distinguishing among the various types of loop facilities – voice grade (DS0/analog POTS), DS1, DS3, OCn and dark fiber[2] – the Commission has defined "high-capacity loops" as those of DS1 or higher capacity.[3]

148. In the *Triennial Review Order*, the Commission determined that competitive LECs were impaired without access to DS1, DS3, and dark fiber loops, subject to state commission implementation of "triggers" principally measuring the availability of actual alternatives or the feasibility of constructing such alternatives to a particular customer location, which could show that a competitor was not impaired without unbundled access to incumbent LEC facilities.[4] As we explained in the *Interim Order and NPRM*, the D.C. Circuit did not make a formal pronouncement regarding the status of the Commission's findings with respect to high-capacity loops, and although some carriers have argued that those rules have been vacated,[5] we have not taken a position on that question.[6] Nevertheless, the Commission sought comment on how best to respond to the D.C. Circuit's *USTA II* decision concerning application of the impairment standard to high-capacity loops. In recognition of the fact that continued disputes over *USTA II*'s implications for our high-capacity loop unbundling rules would give rise to uncertainty and thus instability in the market, we take this opportunity to revisit those rules here.

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[1] *Triennial Review Order*, 18 FCC Rcd at 17105, para. 203.

[2] *Id.* at 17012, para. 45.

[3] *Id*. at 17012, 17106, paras. 45, 204.

[4] *Id*. at 17164-84, paras. 311-42. The *Triennial Review Order* established two types of triggers to evaluate impairment of high-capacity loops: (1) a two wholesaler trigger (for DS1 and DS3 loops); and (2) a two self-provisioner trigger (for DS3 and dark fiber loops).

[5] *See, e.g.*, Letter from Jerry Hendrix, Assistant Vice President Interconnection Services, BellSouth, to Stephen G. Huels, Regional Vice President, AT&T (Apr. 30, 2004), *in* Letter from David Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 01-338 at attach. 7 (filed May 7, 2004) ("The D.C. Circuit Order explicitly vacated the Federal Communications Commission's (FCC) national impairment finding for DS1, DS3 and dark fiber elements. As a result, once vacatur becomes effective, ILECs will no longer have an obligation under Section 251 of the Act to offer these elements and, at that time, BellSouth will pursue the legal and regulatory options available to it."); Verizon Reply, CC Docket Nos. 01-338, 96-98, 98-147 at 5 (filed Apr. 5, 2004) ("Once the mandate in *USTA II* issues, ILECs will have no obligation to make high-capacity facilities available on an unbundled basis at all.").

[6] *USTA II*, 359 F.3d at 571-73; *Interim Order and NPRM*, 19 FCC Rcd at 16788, para. 9 (assuming *arguendo* that the D.C. Circuit vacated the Commission's enterprise market loop unbundling rules).

C. Impairment Analysis − High-Capacity Loops

1. General Operational and Economic Characteristics of High-Capacity Loops

149. At the outset, we note that the *USTA II* court did not disturb our conclusions regarding either DS0 or OCn loops.[7] Indeed, the D.C. Circuit has recognized that the lowest capacity level – a DS0 copper loop to the customer premises – is the most obvious candidate for an unbundling obligation, and our finding regarding the lack of impairment for the highest capacity loops in the *Triennial Review Order* was never challenged.[8] With this in mind, we limit our analysis to DS1, DS3, and dark fiber loops, and begin by examining the economics of deploying such loops. We find that although the costs of deploying high-capacity loops vary little among the different capacity levels, the revenue opportunities increase with the capacity level. Thus, our findings regarding impairment among different capacity levels differ somewhat, and we are more likely to find that competitive LECs are impaired without access to unbundled loops of the lowest capacity levels, for which revenue opportunities are the smallest, if no alternatives outside the incumbent's network are available.

150. The economics of deploying loops are determined by the costs associated with such deployment and the potential revenues that can be recouped from a particular customer location. Competitive LECs face large fixed and sunk costs in deploying competitive fiber, as well as substantial operational barriers in constructing their own facilities.[9] The costs of loop construction are fixed, meaning that they are largely independent of the particular capacity of service that a customer obtains at a particular location. For fiber-based loops, the cost of construction does not vary significantly by loop capacity (*i.e.*, the per-mile cost of building a DS1 fiber loop does not differ significantly from the cost to construct a DS3 or higher-capacity fiber loop), but such costs do vary based on the length of the loop. The most significant portion of the costs incurred in building a fiber loop results from deploying the physical fiber infrastructure into underground conduit to a particular location, rather than from lighting the fiber-optic cable.[10] The record reflects that for these reasons, LECs do not typically construct fiber loop facilities at lower capacity levels, such as DS1 or DS3, but rather install high-capacity fiber-optic cables and then use electronics to light the fiber at specific capacity levels, often "channelizing" these higher-capacity offerings into multiple lower-capacity streams.[11]

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[7] Thus, this Order does not address loops of either of those capacity levels.

[8] *USTA II*, 359 F.3d at 561.

[9] *See* XO Tirado Decl. at para. 17 (stating that costs of deploying loops average $200,000 per building).

[10] These costs include the costs of obtaining rights-of-way and other necessary legal permissions, the costs of the actual fiber-optic facilities, and the costs of physical deployment itself. Alpheus Comments at 34-35; AT&T Comments at 57-60; ALTS *et al*. Comments at 63; Sprint Comments at 43-46. The availability of conduit substantially reduces the revenues a carrier must earn to justify the deployment of a lateral. *See* Letter from Thomas Jones, Counsel for Time Warner Telecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Exh. B, CSMG CLEC Network Extension Cost Model at 33 (filed Dec. 1, 2004) (Time Warner Telecom Dec. 1, 2004 *Ex Parte* Letter) (summarizing the projected revenues required to justify the deployment of a lateral to a location between 500 feet and 4,500 feet from an existing fiber network in selected markets where conduit is leased, rather than constructed). All LECs are obligated under section 224 of the Act to provide access to poles, ducts, and conduit. 47 U.S.C. § 224. We therefore assume for purposes of this discussion that existing conduit is available to competitive carriers that seek to deploy their own loop facilities. Indeed, the record contains evidence that existing conduit is frequently available for use by competitive LECs that wish to deploy their own fiber. SBC Reply at 37-38; Qwest Reply at 36-37; Verizon Pilgrim Reply Decl. at paras. 12-15. To the extent that any party may believe that section 224 of the Act requires some different interpretation or implementation, such concerns are outside the scope of this proceeding. *See supra* para. 23.

151. In addition to the substantial fixed and sunk costs involved in deploying competitive fiber, competitive LECs also face substantial operational barriers to constructing their own facilities. As we found in the *Triennial Review Order*, the construction of local loops generally takes between six to nine months absent unforeseen delay.[12] Competitive LECs describe on our record the possible delays affecting construction decisions and the time it takes to deploy fiber. Often these delays are attributable to problems in securing rights-of-ways from local authorities in order to dig up streets prior to laying fiber, including lengthy negotiations with local authorities over the ability to use the public rights-of-way and obtaining building and zoning permits.[13] Moreover, commenters note that many local jurisdictions impose construction moratoriums which prevent the grant of a franchise agreement to construct new facilities in the public rights-of-way.[14]

152. Loop impairment is more closely related to the demand of the individual customer served by such a loop than is impairment with regard to dedicated transport. Unlike transport facilities, loops generally are not used to aggregate multiple customers' traffic.[15] Because a loop serves a specific location and cannot economically be transferred to serve another customer location, most of the costs of constructing loops are sunk costs. Unless the loop is subsequently purchased or leased by another provider wishing to serve that same location, a carrier's ability to recover the cost of that loop is generally wholly tied to the carrier's ability to maintain service to a specific customer and, thus, most of the costs associated with constructing loops are sunk costs.

153. As such, the barriers to entry impeding competitive deployment of loops are substantial: The costs of the loops themselves, as well as costs associated with accessing right-of-ways and obtaining building access do not generally vary with demand. As we found in the *Triennial Review Order*, the costs of loop deployment vary due to factors such as regional differences in costs of construction; the length of the fiber lateral[16] that competitor must construct from the splice point on the relevant ring[17] to the customer location; and the availability of reasonable access to rights-of-way.[18]

154. While the fixed and sunk costs for constructing loops are quite high, economies of scale in deployment can accrue when carriers construct loops to locations that are geographically close to the

[11] *See, e.g.*, Qwest Comments at 76-77; SBC Reply at 29; Verizon Reply at 47-48.

[12] *Triennial Review Order*, 18 FCC Rcd at 17161, para. 304.

[13] *Id.*

[14] *See, e.g.*, Alpheus Galvan/Maella Decl. at para. 56; XO Tirado Decl. at para. 17.

[15] The feeder portion of a loop that serves a multiunit premises typically is used to aggregate the traffic of multiple customers, but only those customers located in the same building. *See* XO Tirado Decl. at para. 13 (noting that only in "limited instances" is there an opportunity to aggregate traffic on a loop).

[16] Throughout this Order, we use the term "lateral" to describe a fiber-optic facility used to connect a fiber-optic ring to a particular customer location.

[17] Even if a fiber-optic facility passes directly next to a building, a competitor cannot attach a lateral wherever the ring passes a building but rather must attach its lateral at a splice point along the ring. The record indicates that splice points on competitive networks are typically placed about 2,000 feet apart. *See* AT&T Comments at 37; AT&T Comments, Attach. D, Declaration of Anthony Fea and Anthony Giovannucci (AT&T Fea/Giovannucci Decl.) at para. 23; *see also* Alpheus Comments at 61 (noting that the Commission "cannot simply assume a short lateral, as sometime CLECs must extend lateral a significant distance to even get to the closest splice point").

[18] *Triennial Review Order*, 18 FCC Rcd at 17161, para. 304.

transport network, assuming other barriers do not preclude construction.[19] This is especially true in urban areas where the concentration of potential customer locations – and thus of revenue opportunities – is very dense.[20] Competitive carriers explain that when they build fiber rings in a metropolitan area, they do so in a manner that identifies geographically proximate commercial buildings that house as many potential customers as possible, and attempt to design and build the ring such that it directly passes and can be used to serve as many of those buildings as possible.[21] As such, the record shows that carriers are able to self-deploy or to use competitive DS3 loop facilities in large metropolitan areas where buildings are either directly connected to a competitive fiber ring, or likely would require the construction of only a short lateral from a nearby splice point where buildings are either directly connected to the fiber rings, or lie in narrow geographic corridors close to these rings.[22] Given the high cost of constructing the "lateral" fiber connecting a building to the fiber ring's splice point, carriers generally will construct these laterals only to buildings located in narrow geographic corridors close to their existing fiber rings. Moreover, the record indicates that carriers can sometimes economically serve lower-capacity customers (*e.g.*, customers at the DS1 capacity level) in multi-tenant buildings because the incremental costs of providing channelized capacity over a higher-capacity fiber loops are minimal when one or more other customers in a building are already served by competitive fiber of sufficient capacity, or the likelihood of capturing customers at higher capacity justifies deployment of facilities that can be channelized to the DS1 level.[23]

[19] *See, e.g.*, Alpheus Comments at 39-40; KMC Duke Decl. at paras. 8-11; XO Tirado Decl. at paras. 14-20; Verizon Pilgrim Reply Decl. at paras. 10-15; Loop and Transport Coalition Reply at 38-39; Qwest Reply at 39 & n.101.

[20] *See, e.g.*, Alpheus Comments at 37; SBC Comments, Attach. A, Tab TX at 16; Verizon Reply at 110-12; BOC UNE Fact Report 2004 at III-7; Letter from Patrick J. Donovan, Counsel, TDS Metrocom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Attach. at 1 (filed Oct. 18, 2004). *But see* Qwest Comments at 63 (stating that costs of deployment are lower in rural areas where wires do not need to be trenched).

[21] AT&T Comments at 33; XO Tirado Decl. at paras. 12-15; KMC Duke Decl. at para. 6; *see also* Letter from Jonathan Banks, Vice President-Executive and Federal Regulatory Affairs, BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2-3 (filed Dec. 9, 2004). A local fiber network or fiber ring is an interconnected set of transmission facilities connecting critical hand-off points such as incumbent LEC tandem offices and interexchange POPs built by competitive LECs. Competitive LECs use these facilities to serve customers that are either directly connected to the fiber ring or connected by short laterals or spurs off the ring to the nearest splice point.

[22] *See id. See also, e.g.*, SBC Comments, Attach. A, Tab CA at 18, Tab IL at 16, Tab MI at 17, Tab MO at 10, Tab OH at 16, and Tab TX at 16 (citing evidence that competing carriers have placed fiber-optic facilities in dense urban and/or commercial areas, near other buildings to which a competitive carrier has already deployed a fiber loop); ATI Wigger Decl. at para. 23 (stating that ATI will only build a lateral of less than 500 feet for a customer with a minimum bandwidth requirement of one DS3); Loop and Transport Coalition Comments, Declaration of James C. Falvey (Xspedius Falvey Decl.) at para. 20 (showing that Xspedius has 600 lit buildings either directly on a fiber ring or connected to a competitive ring via a short lateral); ATX, BayRing, *et al*. Reply at 42 (stating that two DS3s' worth of traffic would justify deployment of competitive loops where the fiber ring is within 500-1000 feet of the building); AT&T Comments at 37 (stating that, under the most favorable case, two DS3s' worth of traffic would justify deployment of competitive loops where the fiber ring is within 350 feet of the building); XO Emergency Petition for Expedited Determination that Competitive Local Exchange Carriers Are Impaired Without DS1 UNE Loops, WC Docket No. 04-313, CC Docket No. 01-338 at 27 (filed Sept. 29, 2004) (stating that XO has built laterals to approximately 1% of the office buildings in cities where it has metro fiber networks, with an average distance from the fiber ring of 500 feet).

[23] *See, e.g.*, Loop and Transport Coalition Comments, Declaration of David A. Kunde (Eschelon Kunde Decl.) at para. 17; Letter from Bennett L. Ross, General Counsel, BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 1-2 (filed Dec. 8, 2004) (BellSouth Dec. 8, 2004 DS1 *Ex Parte* Letter) ("[T]he most significant costs of providing high-capacity services utilizing the CLEC's own network are

Thus, the record indicates that when deciding whether and where to build their own facilities, competitive LECs target areas that offer the greatest demand for high-capacity offerings (*i.e.*, that maximize potential revenues) and that are close to their current fiber rings (*i.e.*, that minimize the costs of deployment).[24] The evidence in the record shows that the highest concentration of competitive LEC deployment of loops in the central business districts of large metropolitan areas are near where competitors have already deployed fiber rings.[25]

2. Appropriate Level of Granularity

a. Appropriate Geographic Market

155. Our first task in the impairment analysis is to define the appropriate level of geographic granularity at which to evaluate impairment. Consistent with the position of several incumbent LECs, including Verizon and SBC, we find that the area served by a wire center is the appropriate geographic market.[26] Parties have advocated a wide array of options, ranging from building-specific tests to MSA-wide determinations to national findings of impairment or lack thereof.[27] We recognize that some imperfections are inherent in any approach we might adopt, and conclude that the other proposed geographic tests have greater defects than the one we select. For example, a properly designed building-specific test could assess variations in impairment far more subtly than could a wire center or MSA-based approach, but would entail steep (and indeed, as we conclude below, insurmountable) hurdles with regard to administrability. In contrast, an MSA-wide approach relying on objective, readily available data would alleviate dramatically any concerns regarding administrability, but (as we also describe below) would require an inappropriate level of abstraction, lumping together areas in which the prospects for competitive entry are widely disparate. Thus, we are faced with the difficult task of adopting a test that balances these concerns, recognizing impairment where it exists but denying unbundling where competitive deployment is economic – and doing so in an administrable manner that is not excessively over- or under-inclusive.[28] As explained below, we adopt a wire center-based test, finding that requesting carriers are not impaired within the service areas of wire centers that contain significant competitive fiber deployment, as evidenced by collocation, and exhibit substantial revenue opportunities, as evidenced by the number of business lines served by the particular wire center. Although we recognize that such a test may in some cases be under-inclusive (denying unbundling in specific buildings where competitive entry is not in fact economic) or over-inclusive (requiring unbundling in specific buildings where competitive

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associated with collocation, construction of a fiber ring, and installation of the [laterals] to connect buildings to that fiber ring. However, once those costs have been incurred to offer service at a DS-3 or higher transmission level, the incremental expense of offering DS-1 service is minimal.").

[24] The differences in revenue opportunities of different capacity loops are discussed below.

[25] *See, e.g.*, Alpheus Comments at 37; SBC Comments, Attach. A, Tab TX at 16; Verizon Reply at 110-12; BOC UNE Fact Report 2004 at III-7; TDS Metrocom Jenn Decl. at para. 9.

[26] *See, e.g.*, Verizon Comments at 82; SBC Comments at 88; BellSouth Dec. 8, 2004 DS1 *Ex Parte* Letter at 1; ACS Dec. 8, 2004 *Ex Parte* Letter at 4; *see also supra* note Error: Reference source not found (defining "wire center").

[27] *See, e.g.*, ALTS *et al*. Comments at 66 (building-by-building test); AT&T Comments at 15-32 (same); MCI Comments at 139-40 (same); Verizon Comments at 83-85 (MSA test); SBC Comments at 87-89 (same).

[28] *See USTA II*, 359 F.3d at 570 (noting "the inevitability of *some* over- and under-inclusiveness in the Commission's unbundling rules").

entry is in fact economic), we conclude that this approach strikes the appropriate balance and responds to the concerns expressed by the court in *USTA II*.[29]

156. Our choice of the wire center service area as the appropriate level of geographic granularity at which to assess requesting carriers' impairment without access to high-capacity loops is grounded on two specific directives set forth in the *USTA II* decision. As explained above, the D.C. Circuit (1) rejected the *Triennial Review Order*'s "subdelegation" to state commissions of authority to evaluate subjective criteria and, based on such evaluation, require unbundling under section 251,[30] and (2) directed the Commission to consider not only *actual* competition within a given market, but also *potential* competition within that market.[31] In concert, these two directives effectively preclude our reliance on a building-specific approach to high-capacity loop impairment, and counsel instead for a wire-center by wire-center approach.

157. *Administrability.* Given the court's prohibition on subdelegation to the states, a building-specific impairment analysis would be impracticable and unadministrable. As noted above, it would be exceedingly difficult for us to conduct the sort of nationwide, fact-intensive, building-specific inquiries that we delegated to the state commissions in the *Triennial Review Order*. The record suggests that there are at least 700,000 commercial buildings, and perhaps as many as 3 million buildings,[32] for which impairment would have to be evaluated. Such case-by-case evaluation would be impracticable even if the relevant evidence were entirely objective and readily forthcoming. Here, however, the difficulty would be magnified by carriers' disincentives to provide relevant data that is in their possession and by the subjectivity inherent in the interpretation of that data.

158. First, building-by-building evaluation of competitive deployment would require collection and analysis of information that is not easily verifiable, and is often exclusively within the possession of competitive LECs, many of which have little incentive to provide that information to regulators evaluating impairment.[33] Incumbent LECs assert that this problem manifested itself during the state proceedings conducted to implement the *Triennial Review Order*,[34] and recurred in the instant

[29] *See Pricing Flexibility Order*, 14 FCC Rcd at 14276, para. 96 (citing *United States v. FCC*, 707 F.2d, 610, 618 (D.C. Cir. 1983)); *see also Sinclair v. FCC*, 284 F.3d 148, 159 (D.C. Cir. 2002) ("Where issues involve 'elusive' and 'not easily defined' areas . . . our review is considerably more deferential, according broad leeway to the Commission's line-drawing determinations.") (citation omitted); *AT&T v. FCC*, 220 F.3d 607, 627 (D.C. Cir. 2000) (stating that "the Commission has wide discretion to determine where to draw administrative lines").

[30] *USTA II*, 359 F.3d at 565-68, 573-74, 594.

[31] *See id.*; *infra* Part IV.C.

[32] *See* Loop and Transport Coalition Comments at 73 (citing "some 3 million commercial buildings in the United States"); Sprint Comments at 44 (stating that "[t]here are approximately 739,000 commercial buildings alone in the U.S.").

[33] We decline to impose the burdens of creating and updating a building-by-building facilities catalog on these third-party carriers. Moreover, we recognize that these third-party competitive LECs may (1) have no interest in the outcome of the analysis, and thus little incentive to provide the relevant information, or (2) desire to retain unbundling within the building (perhaps to serve customers on floors other than the floors currently served over their own facilities), and thus would have an explicit incentive to avoid cooperating.

[34] *See, e.g.*, Verizon Reply at 62-63; Verizon Dec. 8, 2004 Guyer/Glover *Ex Parte* Letter at 3; Letter from Glenn T. Reynolds, Vice President-Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Attach. at 2, 8 (filed Aug. 18, 2004). In contrast to the situation here, the building-by-building approach to unbundling used in the *MDU Reconsideration Order* relies upon information about the characteristics of the tenants in buildings that is readily ascertainable by both incumbent LECs and competitive LECs, and based

proceeding, during which they suggest competitive LECs submitted only limited, anecdotal evidence of their own.[35] Competitive LECs, for their part, criticized incumbent LEC data regarding competitive deployment.[36]

159. Second, even if all parties cooperated in providing the relevant data, that data would require substantial analysis before it could be used to reach impairment determinations. For example, competitive LEC commenters have proposed extremely complex criteria to identify which observed competitive facilities should be included in any analysis of current competition in particular buildings – criteria which would require evaluation of which parts of a building were served by the competitive facility, where that facility interconnects with the incumbent LEC's network, and the systems used for ordering and provisioning the competitive service, among other things.[37] Even if these factors could be

upon an established regulatory framework. *MDU Reconsideration Order*, 19 FCC Rcd at 15856, 15858-59, para. 6.

[35] BellSouth Reply at 31-33 (observing that competitive LECs have unique access to data regarding competitive facilities deployment, yet chose not to submit that evidence in the record); Qwest Reply at 10-12 (observing that competitive LECs advocating for impairment determinations to be made on a route-by-route basis failed to provide data that would allow the Commission to make such evaluations); SBC Reply at 17-19 (asserting that the Commission should infer from the fact that competitive LECs chose not to submit evidence of competitive facilities deployment in the record that such evidence, if submitted, would have been detrimental to the competitive LECs' positions); Verizon Reply at 12-16 (stating that competitive LECs have refused to submit their data regarding competitive facilities deployment). A number of competitive LECs relied upon a study by QSI analyzing data submitted in 14 state commission proceedings regarding high-capacity loops and transport. *See* QSI Study. However, as incumbent LEC commenters note, the evidence submitted in the state proceedings may itself be incomplete; the evidence that was submitted focused on whether evidence of deployment met the *Triennial Review Order's* triggers; and the factors that QSI applied to exclude competitive facilities, including the exclusion of competitive facilities identified by incumbent LECs, are subject to dispute. *See* Verizon Walker Reply Decl. at paras. 21-27; SBC Reply at 28-30; BellSouth Reply at 29-30; *see also, e.g.*, BellSouth Reply at 31-32 (criticizing competitive LEC commenters for providing only general claims about their deployment of competitive transmission facilities, without providing details regarding that deployment).

[36] *See, e.g.*, ALTS *et al*. Reply at 23-24; Global Internetworking Reply at 2-4; Integra Reply at 9; MCI Reply at 90 n.269. Several incumbent LECs submitted maps depicting competitive fiber deployment in various metropolitan areas throughout the country. *See* Verizon June 24, 2004 *Ex Parte* Letter, Attach. at 4 and Exh. 5 (providing maps of competitive fiber deployment); SBC Aug. 18, 2004 *Ex Parte* Letter, Attach.; BellSouth Oct. 1, 2004 Reynolds *Ex Parte* Letter, Attach. (same). As described in more detail below, *see infra* paras. 187-89, the value of these maps to our analysis is undermined by several shortcomings. Among other things, they fail to indicate the capacity of service being provided over the facilities described, or whether those facilities are in fact being used to provide services for which competitive LECs may use UNEs Moreover, even if the maps indicated a competitive LEC's ability to compete in some areas within a given MSA without unbundled high-capacity loops, we reject an MSA-wide approach to loop unbundling, and the incumbent LECs have offered no administrable and accurate means by which we could use the maps to locate those specific areas within an MSA in which we should prohibit unbundling. *See id.* Given these critical problems, these maps are only minimally relevant to our inquiry here, which evaluates whether a particular facility can be duplicated by a competitive carrier for provision of a particular service.

[37] *See, e.g.*, Letter from Becky Sommi, Vice President, Operation Support, Broadview Networks, *et al*. to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2-5 (filed Dec. 8, 2004) (favoring a test based on the presence of competitive wholesalers and stating that the existence of wholesalers serving buildings using competitive DS1 loops should be evaluated by an independent third party, based on the following criteria: (1) the wholesaler must be unaffiliated with the incumbent LEC; (2) the wholesaler must offer DS1 loops on a common carrier basis; (3) the wholesaler must be capable of delivering DS1 loops that connect to all customers in the building at the customer-specified point of demarcation; (4) the wholesaler must be offering service using its own loop facilities (not those of the incumbent LEC or another competitive LEC); (5) DS1

reasonably enumerated, it is inevitable that incumbent LECs and competitive LECs would engage in disputes over many of them, building-by-building, raising the prospect of expensive, fact-intensive litigation for years to come. The expense of such litigation could not be justified by the revenue available from the majority of individual customers. We thus conclude that such detailed and potentially subjective building-by-building and loop-by-loop evaluations, conducted for between 700,000 and 3 million buildings, involving data parties will be reluctant to provide, are not practical. Indeed, various incumbent LECs have agreed, advocating a wire center-based approach to the high-capacity loop impairment inquiry.[38]

160. *Reasonable Inferences.* Even if we could surmount the administrability problems outlined above and adopt a building-specific approach that accounted for the presence of competitive alternatives within a building – which, as described, we could not – that approach would still be flawed by its failure to draw reasonable inferences from actual deployment regarding *potential* deployment. Any effort to account for such potential deployment would render the building-specific test even more fact-intensive, and far more difficult to administer.[39] Clearly, the Commission is not suited to conduct this kind of analysis for between 700,000 and 3 million buildings.

161. Given the guidance of *USTA II* and the concerns described above, we believe that the wire center service area is the appropriate geographic unit at which to evaluate requesting carriers' impairment without access to unbundled high-capacity loops. As an initial matter, there are far fewer wire center service areas than there are buildings.[40] Conversely, wire centers generally cover relatively small land areas, such that characteristics found in one section of a wire center serving area are likely to be found in other sections of the wire center serving area as well. Moreover, as described above,[41] the tests we adopt rely on data regarding the number of business lines and fiber-based collocators in a wire center, which are

service must be delivered over an industry standard DS1interface, including, but not limited to, meeting Telcordia Standard GR-499; (6) the wholesaler's loops must be terminated at competitive LECs' collocations; and (7) the wholesaler must have electronic ordering and provisioning systems).

[38] *See, e.g.*, Verizon Comments at 82; SBC Comments at 88; BellSouth Dec. 8, 2004 DS1 *Ex Parte* Letter at 1; ACS Dec. 8, 2004 *Ex Parte* Letter at 4.

[39] For example, the "potential deployment analysis" that we asked state commissions to conduct with regard to high-capacity loops in the *Triennial Review Order* required consideration of numerous factors in relation to each location, including:

> evidence of alternative loop deployment at that location; local engineering costs of building and utilizing transmission facilities; the cost of underground or aerial laying of fiber or copper; the cost of equipment needed for transmission; installation and other necessary costs involved in setting up service; local topography such as hills and rivers; availability of reasonable access to rights-of-way; building access restrictions/costs; and availability/feasibility of similar quality/reliability alternative transmission technologies at that particular location.

Triennial Review Order, 18 FCC Rcd at 17179, para. 335; *see also* BellSouth Reply at 40 (describing burden of conducting a potential deployment analysis on a building-by-building basis).

[40] Our record suggests that there are about 11,000 BOC wire centers. *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. These wire centers comprise the great majority of all wire centers operated by incumbent LECs that are subject to unbundling. *See generally* 47 U.S.C. § 251(f) (exempting certain incumbent LECs from the obligations set forth in section 251(c)).

objective and readily available. Thus, our wire center test avoids the administrability concerns that would afflict any building-by-building approach. Furthermore, our wire center-based approach yields reasonably precise results that link impairment to the factor that most prominently determines whether construction of a competitive facility is economic – namely, the presence of extensive competitive fiber rings within an area, as evidenced by competitive fiber-based collocations and high business line counts. The record supports inferences at the wire center service area level that requesting carriers are not impaired without unbundled DS1 or DS3 loops in wire center service areas with these features, due to their ability to deploy their own facilities or obtain access to other competitively deployed networks on a wholesale basis.[42] Thus, our choice of a wire center-based test permits an accurate, administrable, and appropriately nuanced evaluation of impairment.

162. *Alternative Geographic Market Definitions.* Although commenters suggest geographic markets for high-capacity loops ranging from individual buildings to entire regions, these approaches are inferior to the wire center approach. First, as discussed at length above, we reject as unadministrable commenters' advocacy for a building-specific approach to loop impairment.[43]

163. Second, we specifically reject competitive LECs' assertions that building access constraints, such as denial of building access or an incumbent LEC's first-mover advantage with regard to building access, require us to adopt a geographic market definition specific to the customer's location within a building.[44] As noted above, we believe it would be inappropriate to distort our unbundling analysis in an effort to solve alleged deficiencies in other aspects of our regulatory regime. Thus, we examine impairment with regard to loops only at the wire center-specific level, and leave building-specific impediments to be addressed in other Commission proceedings, or in other fora, as appropriate. Furthermore, while we do not give weight to the availability or use of tariffed incumbent LEC offerings, standing alone, in evaluating impairment for high-capacity loops, we note that competitive LECs that are denied access to loops in a particular building where competitive deployment is not economic for building-specific reasons likely will still be able to access incumbent LEC facilities as services at tariffed rates. Thus, for example, in urban wire centers where high-capacity loop unbundling is not required, competing carriers will be able to use their own facilities, or facilities deployed by other competitors, potentially complemented, as a gap-filler, by services using an incumbent LEC's tariffed alternatives for buildings where competitive facilities cannot economically be deployed.[45] The availability of such incumbent LEC offerings therefore mitigates concerns, expressed by some competitive LECs, that a wire center approach is impermissibly "under-inclusive" and overlooks the existence of end users in that wire center that cannot economically be served by competitive facilities.

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[41] *See supra* paras. 100, 105.

[42] Specifically, as discussed below, we do not unbundle DS3 loops in wire center service areas with at least 38,000 business lines and at least four fiber-based collocators. We do not unbundle DS1 loops in wire center service areas with at least 60,000 business lines and at least four fiber-based collocators. *See infra* paras. 174, 178.

[43] *See supra* paras. 157-61; *see also, e.g.*, Verizon Dec. 8, 2004 Guyer/Glover *Ex Parte* Letter at 2.

[44] Time Warner Telecom Dec. 1, 2004 *Ex Parte* Letter at 3-4; *see also* Declaration of Graham Taylor and Charles M. Boto at 4-10, *in* Time Warner Telecom Dec. 1, 2004 *Ex Parte* Letter, Exh. A.

[45] The record also suggests that in some cases, competitive LECs might be able to serve customers' needs by combining other elements that remain available as UNEs. *See* BellSouth Dec. 8, 2004 DS1 *Ex Parte* Letter at 2 (stating that competitive LECs can use the following types of copper loops to provide DS1 service to customers: (1) 2-wire or 4-wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loops; (2) Asymmetrical Digital Subscriber Line Compatible Loops; (3) 2-wire Unbundled Copper Loops-Designed; or (4) Unbundled Copper Loop Non-Designed).

164. Third, we also reject proposals that we evaluate impairment for high-capacity loops by broader geographic areas, such as MSAs.[46] As we have explained above,[47] a single MSA can encompass urban, suburban, and rural areas, each of which presents different challenges to competitive LECs seeking to self-deploy high-capacity loop facilities or to obtain such facilities from an alternative wholesale provider. An impairment determination that applies to a geographic zone of this size is therefore likely to either over-estimate or under-estimate impairment.[48]

165. Fourth, we reject proposals to reach national findings, of either impairment or non-impairment, with regard to high-capacity loops. On one hand, SBC, Qwest, and Verizon urge us to make a nationwide finding that competitive LECs are *not impaired* without access to DS3 loops,[49] and Qwest urges a nationwide finding of no impairment with respect to DS1 loops as well.[50] On the other hand, AT&T urges us to make a nationwide finding of *impairment* for all high-capacity loops, limited only by the *Triennial Review Order*'s capacity-based restrictions on DS3 loops,[51] while ALTS urges a nationwide impairment finding with regard to DS1 loops.[52] Whereas (as described below) we conclude that the revenue opportunities associated with fiber-optic cable are such that it will always be economic for carriers to deploy such facilities rather than lighting UNE dark fiber for use at very high capacities, the record indicates that the feasibility of constructing loops to serve customers at the DS1 and DS3 capacities is more case-specific, prohibiting a national finding. We thus find that the more nuanced wire center approach that we adopt today is a more faithful and workable implementation of the Act and *USTA II* than either of "nationwide" proposals set out in our record. Unlike commenters' proposals, our approach takes into account specific factors relevant to the prospects for competitive deployment in a given area. In contrast, a nationwide finding with regard to high-capacity loops would be inappropriate, given that – as described below – the revenue opportunities associated with DS3 loops will, in some but not all areas, justify the attendant costs, and that competitors will, in some but not all areas, be able to provide service at the DS1 capacity using higher-capacity competitive facilities.

b. Capacity-Specific Analysis

166. As described below, we base our analysis of high-capacity loops on our findings that: (1) competitive deployment of DS3-capacity loops is in some cases economic; (2) competitive deployment of stand-alone DS1-capacity loops is rarely if ever economic, but competitors are nonetheless able to provide DS1-capacity service using a competitively deployed, higher-capacity facility; and (3) requesting carriers are not impaired with respect to dark fiber loops. Based on these determinations, and drawing inferences about requesting carriers' ability to deploy competitive facilities, we find it appropriate to adopt tests that preclude DS1 and DS3 loop unbundling throughout a wire center service area where that

[46] *See* Verizon Comments at 83-85; BellSouth Comments at 44; SBC Comments at 87-89.

[47] *See supra* para. 82.

[48] *See id*. As noted above, we recognize that our wire center-based approach likely suffers from some of these flaws, and will doubtless give rise to some over- and under-inclusion. However, because wire center serving areas are generally far smaller than MSAs, we conclude that the wire center approach achieves far more granularity than an MSA-based approach, and produces reasonable, accurate results without sacrificing too great a degree of administrability.

[49] Qwest Comments at 81; SBC Comments at 87-89; Verizon Comments at 82-83.

[50] *See, e.g.*, Qwest Comments at 76-81.

[51] AT&T Comments at 26-27.

[52] ALTS *et al*. Comments at 52-60.

area's revenue opportunities and the presence of extensive competitive fiber deployment indicate the feasibility of competitive provision at the relevant capacity level.[53] With respect to dark fiber loops, we eliminate unbundling on a nationwide basis.

3. Wire Center-Based Impairment Analysis

167. As discussed above, competitive carriers have been able to overcome the barriers to self-deployment of DS3 loops in narrow geographic corridors where they have already deployed fiber-optic facilities. Where they have used competitive facilities to serve customers at the DS1 capacity, they generally have done so only over higher-capacity facilities already used to serve one or more other customers within the same building.[54] To identify which other markets likely are suitable for self-deployment of DS3- or higher-capacity loops (and those which are suitable for provision of channelized DS1-capacity service), we derive administrable proxies that correlate to the evidence of actual DS3 loop deployment in our record. These proxies indicate when a particular building is likely to fall within the central business district, and thus close to competitive fiber rings. In such cases, our record indicates that competitive carriers can deploy relatively short fiber laterals to connect buildings to nearby splice points on competitive fiber rings, and we may thus infer that DS3 or higher-capacity loops can be deployed in an economic manner. As described above, we find that the presence of fiber-based collocations in a wire center service area is a good indicator of the potential for competitive deployment of fiber rings.[55] We further find, consistent with parties' comments, that a wire center service area's business line count is indicative of its location in or near a large central business district, which is likely to house multiple competitive fiber rings (and thus numerous splice points) with laterals to multiple buildings.[56] A high concentration of business lines generally indicates a likely concentration of large, multi-story commercial

[53] For reasons similar to those described in the dedicated transport section, we do not undertake an "at a minimum" analysis of factors other than impairment with respect to high-capacity loops. *See supra* note Error: Reference source not found.

[54] *See supra* para. 154.

[55] *See supra* paras. 96-105. We define "fiber-based collocator" here to have the same meaning we assign to it for purposes of our transport test above. *See supra* para. 102 (defining "fiber-based collocation").

[56] We recognize that our tests, which measure business line counts within wire centers but do not account for the size of the land areas served by those wire centers, do not explicitly rely on "density" of business lines per unit of geographic area. We note, however, that no party advocated an explicit density-based approach (as distinct from a line-count-based approach) to unbundling, and that no party placed into our record the evidence that would be necessary to derive the relevant density figures. Rather, the parties advocating a wire center approach generally supported thresholds based on business line counts. *See, e.g.*, Verizon Comments at 82 (stating that "the Commission must eliminate unbundling of high-capacity UNEs in those wire centers that have concentrated demand for high-capacity services," and identifying such wire centers on the basis of business line counts); USTA Reply at 16 (same); Verizon Reply, Attach. F, Reply Declaration of Ronald H. Lataille, Marion C. Jordan, and Julie K. Slattery (Verizon Lataille/Jordan/Slattery Reply Decl.) at para. 7 (arguing that line counts effectively predict presence of competitively supplied high-capacity facilities); BellSouth Padgett Aff. at paras. 27-30 (same); Letter from Glenn T. Reynolds, Vice President – Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Attach. (filed Dec. 1, 2004) (linking business line counts and "business line density"); SBC Comments at 88-90 (arguing that high line counts correlate to a competitive carrier's ability to construct fiber-optic facilities within a wire center). Moreover, data submitted into our record by BellSouth, associating line count and fiber-based collocator figures with particular CLLI codes, confirm that the wire centers with the most business lines tend to fall within the centers of large urban areas. *See* BellSouth Padgett Aff., Ex. SWP-1; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter. Furthermore, our line count test is used in conjunction with a collocation test, to maintain unbundled access within wire centers showing relatively high revenues but insufficiently extensive competitive fiber rings to enable the economic construction of short laterals. *See, e.g.*, *infra* para. 168.

buildings, which in turn may justify the construction of fiber networks. Thus, high business line counts and the presence of fiber-based collocators, when evaluated in conjunction with one another, are likely to correspond with actual self-deployment of competitive LEC loops or to indicate where deployment would be economic and potential deployment likely.[57]

168. In contrast to our test for dedicated transport, our test for high-capacity loops requires both a minimum number of business lines served by a wire center *and* the presence of a minimum number of fiber-based collocators to show that requesting carriers are not impaired. As described above, the costs of deploying loops can vary tremendously depending on the length of the lateral that a competitor must construct between the fiber ring's splice point and the building. Thus, our test captures areas characterized by high revenue opportunities and the likely presence of multiple competitive fiber rings. A test, like the one we adopt for dedicated transport, that was satisfied only by either a sufficient number of lines *or* a sufficient number of collocations would not account for both revenue opportunities and the scope of deployed fiber rings, and would therefore deny unbundling where carriers are impaired, for two reasons. First, the presence of fiber rings in the absence of a sufficiently high business line count might indicate a wire center service area that happens to fall along a ring that serves other busy, high-revenue areas but that does not itself offer revenues sufficient to justify competitive deployment of high-capacity loops. In such wire center service areas, competitive LECs might deploy fiber transport through the wire center service area but not bring fiber close enough to buildings to permit economic service to end-user customers over short laterals. Second, the presence of a high number of business lines in the absence of a correspondingly high number of fiber-based collocations might indicate a location that offers high revenue opportunities but that is not close to existing fiber facilities or not suitable for fiber ring deployment for other reasons – for example, an otherwise suburban area that houses a small commercial development, a factory in a rural area, or an urban area with high business line count but insufficient competitive fiber deployment to indicate that the construction of competitive laterals to actual buildings would be economic at any particular capacity. Competitive deployment of high-capacity loops to such areas would require the construction of long fiber laterals, and thus would entail extremely high costs that very likely would exceed the available revenues.

169. While the evidence does not (and could not) reveal a precise, immutable relationship between actual and potential deployment of high-capacity loops on the one hand, and the numbers of business lines and fiber-based collocators on the other hand, we adopt these proxies because they best minimize and balance any under-inclusiveness and over-inclusiveness. The proxies we have chosen appear from our record to be most likely to reveal, in an administrable manner, which areas are likely to offer concentrated revenue opportunities and support significant fiber deployment, and thus to permit the construction of competitive high-capacity loops. As the Commission has recognized in the past, and as courts have agreed, our selection of specific criteria is not an exact science, and the Commission may exercise line-drawing discretion when rendering determinations based on agency expertise, our reading of the record before us, and a desire to provide an easily implemented and reasonable bright-line rule to guide the industry.[58] We note too that the D.C. Circuit has in the past expressly upheld the

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[57] Our high-capacity loop rules thus rely on the same readily ascertainable data used for our dedicated transport analysis. *See supra* para. 161. To facilitate application of a federal standard, we rely on objective criteria that are administrable and verifiable, but could be disruptive as applied to a dynamic market if modest changes in competitive conditions resulted in the reimposition of unbundling obligations. Therefore, once a wire center satisfies the standard for no DS1 loop unbundling, the incumbent LEC shall not be required in the future to unbundle DS1 loops in that wire center. Likewise, once a wire center satisfies the standard for no DS3 loop unbundling, the incumbent LEC shall not be required in the future to unbundle DS3 loops in that wire center.

[58] *See supra* note Error: Reference source not found.

Commission's reliance on fiber collocation as an indicator of the potential for facilities-based competition.[59]

170. We emphasize, however, that economic conditions surrounding competitive deployment of DS3-capacity loops permit inferences regarding potential deployment in the context of DS3 loops that would not be appropriate in the context of DS1 loops. A DS3 loop has 28 times the capacity of a DS1 loop, and thus offers a substantially greater revenue opportunity.[60] This critical difference forecloses an approach that would treat the different capacity facilities as though they were the same. The record before us indicates that competitive carriers typically do not provision stand-alone DS1 loops (*i.e.*, loops at the DS1 capacity provisioned either by the competitive LEC itself or a third-party provider unaffiliated[61] with the incumbent LEC) to serve customers at the DS1 capacity level.[62] Rather, the record indicates that competitive carriers can sometimes provide facilities-based service at the DS1 capacity where they, or another competitive carrier, have rationalized the costs of a DS3- or higher-capacity fiber loop by providing high-capacity services to one or more other customers within the same building (so-called "anchor" tenants).[63] Competitive LECs provide evidence that, in such cases, they sometimes find it economic to self-deploy higher-capacity facilities that may be used to serve a particular customer at the

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[59] *See WorldCom, Inc. v. FCC*, 238 F.3d 449, 458-59 (D.C. Cir. 2001).

[60] This is parallel to the fact that a DS1 has equivalent capacity to 24 DS0s. Small and medium enterprise customers served by DS1 loops provide much lower revenue opportunities than large enterprise market customers and, generally, resist multi-year contract obligations. *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17174, para. 325; NuVox Comments at 11-12 (discussing revenue potential that can be generated from a DS1). Additionally, the record shows that the majority of small and medium-sized business customers occupy single tenant commercial buildings and that the building of laterals for DS1 services requires many customers at a single location to justify their costs. ATI Wigger Decl. at para. 21; *see also* Eschelon Kunde Decl. at para. 17 (stating that deploying a single DS3 to serve a customer within a building is not economic except where anchor tenants within the building are already served by competitive fiber-optic facilities).

[61] As in relation to our transport analysis, we use the terms "affiliate" and "affiliated" here consistent with the definition set forth in section 3(1) of the Act. *See* 47 U.S.C. § 153(1).

[62] *See* ALTS *et al*. Comments at 53-56; Loop and Transport Coalition Comments at 97-99, 105-112; NuVox Comments at 11-12. In addition, competitive carriers expressly state that a competitive LEC would not construct its own DS1 (or lower) capacity loops, and even incumbent LECs' assertions about competitive provision to DS1 customers are based on assumptions that competitors routinely deploy multiplexing equipment that can provide capacity down to lower levels. *See* NuVox Comments at 11-13; NuVox Coker Decl. at para. 2; NuVox Reply at 4-7; Loop and Transport Coalition Comments at 105-112; Sprint Comments at 43; Time Warner Telecom Comments at 3; SBC Comments at 86; SBC Reply at 32. The evidence submitted in the record shows that there is *de minimis* deployment of DS1 loops by carriers for their own use, as well as extremely limited availability of wholesale DS1 loops. *See* NuVox Reply at 7 (citing declarations made by a number of competitive LECs about the availability of wholesale DS1 loops); Letter from Andrew D. Lipman *et al.*, Counsel for ATX *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 4-5 (filed Dec. 8, 2004) ("CLECs have self-provisioned DS1 capacity loops in a certain geographic area or location *only* where the CLEC has already self-provisioned fiber loop facilities at higher capacity levels to serve clusters or tightly grouped customers."). Finally, as explained below, our record contains no probative evidence that cable companies are currently serving enterprise customers at the DS1 or higher capacity to any significant degree. *See infra* note Error: Reference source not found.

[63] Multi-tenant buildings with customers at the DS3-capacity level or above provide a greater revenue potential than that offered by a single DS1 customer, and where customers seeking higher-capacity services justify a carrier's deployment of DS3- or higher-capacity facilities, those carriers can offer channelized DS1 service in the

DS1 level.[64] Additionally, competitive LECs are sometimes able to purchase wholesale capacity to serve a DS1 customer from another competitive carrier that is serving a customer at the DS3-capacity level or higher level in the same building.

171. Thus, the test we adopt here with respect to DS1 loops denies unbundled access to DS1 loops only in the areas served by wire centers where we believe it likely that competitors actually have deployed, or will deploy, competitive facilities at the DS3 capacity level or higher, creating the potential for competitive LECs to channelize those facilities to offer service at the DS1 capacity level. As described above, our DS1 loop impairment analysis is grounded on our conclusion that competitive LECs can supply DS1-capacity service in buildings already served by a higher-capacity facility, but cannot deploy stand-alone DS1-capacity loops on an economic basis. Therefore, the analysis for DS1 loops necessarily differs from the analysis for DS3 loops. In the DS3 loop context, the question before us is whether a carrier *expecting revenues commensurate with a DS3-capacity service* could construct a DS3-capacity facility in an economic manner. In contrast, a competitive LEC seeking to provide a DS1-capacity service by definition cannot expect the magnitude of revenues associated with a DS3-capacity service, and our DS3 test – which assumes that the requesting carrier will reap revenues and thereby offset the costs of deployment – is inapposite. With regard to DS1 loop impairment, then, we do not assess whether the economic conditions in a wire center permit construction of a DS3 loop by a carrier expecting the high revenues associated with that loop, but rather whether it is likely that other competitive carriers have already deployed or will deploy such high-capacity facilities to buildings throughout the wire center serving area, thus making DS1-level use of those deployed facilities potentially viable.

172. For this reason, we require a higher business line count within a wire center service area before determining that requesting carriers are not impaired without unbundled access to DS1 loops than we require with respect to DS3 loops. Specifically, the higher business line threshold accounts for the smaller revenue opportunities afforded by DS1 loops and the importance of ensuring a substantially greater likelihood of the actual or foreseeable presence of DS3- or higher-capacity facilities available for channelization. Equally important, the presence of a higher number of business lines served by a wire center indicates that there are likely to be correspondingly higher revenue opportunities within the buildings in the wire center service area, suggesting the strong likelihood that there are more extensive competitive fiber rings and DS3- or higher-capacity laterals or their intermodal equivalents. Moreover, the two factors are mutually reinforcing, as the record data show that increasing the requisite number of business lines typically increases the number of fiber-based collocations found in wire centers. As indicated below, although our proxies do not expressly require a greater number of fiber-based collocators in the case of DS1 loops than we require with regard to DS3 loops, those wire centers in which we find no impairment without unbundled access to DS1 loops in fact exhibit substantially more fiber-based collocators as well. In these cases, we believe that competitive LECs likely will be able to use capacity on existing DS3- and higher-capacity facilities, or will construct very short laterals for other reasons, to allow the pervasive provisioning of DS1-capacity services if they so choose, and are therefore not impaired without access to unbundled high-capacity loops at the DS1 capacity or above.

173. Indeed, we expect that if the revenue opportunities are great enough, there will be several competitors in a building that have independently deployed fiber capable of being channelized into various loop capacities, and that competitors will offer use of these facilities – to the extent they have

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same building. *See, e.g.*, Eschelon Kunde Decl. at para. 17; AT&T Comments at 42.

[64] *See id*. Competitive LECs would not deploy a copper loop to serve a DS1 customer because the costs of deploying copper are similar to the costs of deploying fiber, whereas the revenue potential is much lower for a copper loop than for a fiber loop.

excess capacity – on a wholesale basis. Once a carrier has justified the costs of deploying its own loop, our "reasonably efficient competitor" standard leads us to expect that that competitor will seek all possible revenue opportunities available, including those available from wholesaling capacity.[65] In such buildings, a competitive provider – unlike a monopolist – would have incentives to offer service at rates based on its own costs (including a reasonable, but not supracompetitive, profit). The presence of such wholesale alternatives at such rates would provide a market-based alternative to reliance on the incumbent LEC's facilities, and, for that reason as well, competitors with access to such alternatives could not be said to be impaired without access to UNEs.[66]

a. DS3-Capacity Loops

174. Based on the economic analysis described above, we adopt a proxy test that does not unbundle DS3 loops in any building served by a wire center with at least 38,000 business lines and four fiber-based collocators.[67] This test denies unbundling of DS3 loops on the basis of our inferences about correlations between wire center service areas with a significant number of business lines and existing fiber facilities and the high-density business districts where competitors can construct stand-alone DS3 loops.[68] We have selected these thresholds because we find they indicate fiber deployment and revenue

[65] *See, e.g., Broadband 271 Forbearance Order* at para. 26 (discussing likelihood of BOCs offering wholesale access to keep traffic on-net in response to facilities-based competition).

[66] *See Triennial Review Order*, 18 FCC Rcd at 17177, para. 330 (discussing disincentive for competitive LECs to compete against incumbent LEC UNEs priced at TELRIC for a significant period of time). In other wire center service areas, where we do not grant unbundling relief, we do not expect that the elimination of high-capacity loop UNEs would significantly encourage wholesaling, given that there is not, and is not expected to be, the same level of competitively deployed fiber to offer at wholesale. In those areas, where competitive deployment is uneconomic, the premature elimination of DS1 or DS3 loop UNEs could discourage competitive fiber deployment that otherwise might occur where revenue opportunities can be appropriately aggregated using UNEs and form a foundation for future competitive loop deployment.

[67] As described below, we also limit unbundling to a single DS3 loop per location. *See infra* para. 177.

[68] Specifically, based on the data in the record, this rule will eliminate unbundled DS3 loops in wire centers accounting for approximately 14% of BOC business lines. *See generally* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. Despite our concerns about the incumbent LEC special access data, we note that even those data indicate that most competitive activity is focused in a limited percentage of wire centers. To put this figure in context, we note that Verizon maintains that nearly 80% of the demand for special access services is concentrated in 8% of its wire centers. *See, e.g.*, Verizon Comments at 36-38 (observing that demand for high-capacity services are highly concentrated in wire centers in the largest metropolitan areas and, within those wire center serving areas, demand is further concentrated in large office buildings and business parks, and that competitor with fiber networks target the buildings where demand is concentrated); Verizon Reply at 71 (stating that because "special access demand as a whole, as well as the specific demand for DSls and DS3s, is highly concentrated, customers will largely be in the same areas where competing carriers have already deployed facilities"); Verizon June 24, 2004 *Ex Parte* Letter, Attach. at 4 and Exh. 5 (providing maps of special access demand and competitive fiber deployment that "show the strong correlation between the presence of competitive fiber and the offices in which demand is concentrated"); *see also* SBC Aug. 18, 2004 *Ex Parte* Letter, Attach. (submitting maps of showing competitive fiber deployment and special access usage for selected cities); BellSouth Oct. 1, 2004 Reynolds *Ex Parte* Letter, Attach. (same). Consequently, even if we relied on tariffed incumbent LEC services to evaluate impairment in the relevant markets (which, for reasons described above, *see supra* Part IV.D, we do not), we anticipate that such data likely would lead us to identify many of the same wire center service areas that we identify here as areas where competitive LECs are not impaired. Specifically, the analysis we adopt here denies unbundling in wire center service areas exhibiting high potential revenues – the same wire centers, according to the BOCs' advocacy, most likely to offer tariffed alternatives to competitive

opportunities sufficient to render competitive deployment of DS3 loops economic. For example, the record indicates that wire centers satisfying these thresholds have an average of ten fiber-based collocators each, and that 75 percent of these wire centers have six or more fiber-based collocators.[69] These figures indicate that competitors are likely to have deployed extensive fiber in such wire centers' service areas, resulting in more splice points located throughout the wire center serving area and therefore shorter distances between buildings within that service area and splice points on those rings. This proximity will generally reduce the costs associated with deployment of competitive laterals. In contrast, more than 80 percent of the wire centers that do not meet our DS3 threshold have zero fiber-based collocators.[70] It is therefore unlikely that the buildings within these non-qualifying wire centers' serving areas will be sufficiently close to splice points along competitive fiber rings to permit construction of short fiber laterals.

175. Moreover, our record shows that wire centers satisfying our criteria serve, on average, over 65,000 business lines each, and 75 percent of them serve at least 46,000 business lines, indicating high revenue opportunities and thus the likelihood that carriers can feasibly provide services using competitive DS3 facilities.[71] The presence of a high number of business lines – and the associated revenue opportunities – increases the likelihood of competitive fiber rings in the wire center serving area, and thus the likelihood that there will be many splice points along competitively provisioned fiber rings from which a requesting carrier could construct a short lateral. In contrast, wire centers not meeting the criteria serve an average of fewer than 4,500 business lines each, with 75 percent serving fewer that 5,119 business lines, which suggests a lower likelihood that the costs of constructing a lateral from a splice point to a building within the wire center serving area could be justified.[72]

176. Finally, we believe that a more restrictive test would deny requesting carriers access to incumbent LEC facilities in cases where they face impairment. We note that we have declined to unbundle high-capacity loops only in wire centers that we have designated as "Tier 1" for purposes of our dedicated transport analysis, and even then only in a limited subclass of Tier 1 wire centers (because we require 38,000 business lines *and* four fiber-based collocators here, but only one or the other in the dedicated transport context). Moreover, whereas the presence of four (or even ten or more) fiber-based collocators indicates the strong prospect of competitive entry with regard to transport, even a very high number of fiber-based collocations will *not* necessarily ensure that fiber-optic facilities are deployed throughout a wire center. For this reason, a test that further narrowed requesting carriers' access to unbundled high-capacity loops would more likely prohibit unbundling in cases where the distances

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LECs.

[69] Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[70] The thresholds we have selected in this Order reflect the record compiled in this proceeding. We recognize that particular relationships between factors such as business line counts and fiber-based collocation may change over time. For example, if incumbent LECs lose lines to facilities-based competitors, their business line counts might decrease. We note, however, that the Commission will be able to account for such shifts should they transpire. *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17408, para. 710 (explaining that the biennial review procedure prescribed by section 11 of the Act affords the Commission sufficient flexibility to modify its regulatory regime when warranted). Moreover, the incumbent LECs have themselves supported our use of static line count thresholds, presumably recognizing that our regime is subject to later modification when circumstances warrant. *See, e.g.*, *supra* note Error: Reference source not found.

[71] *See supra* note 465.

[72] *Id.*

between splice points on competitive rings and buildings that competitors seek to serve are too large, and the costs of deploying loops to those buildings too high, for competitors to justify construction of DS3 loops. By requiring a high number of business lines and at least four fiber-based collocations, our criteria increase the likelihood that such laterals can be constructed on an economic basis. In this manner, we refrain from requiring excessive unbundling in areas where DS3 loops can likely be deployed economically while ensuring unbundled access where they cannot.

177. *Limitation on Multiple Unbundled DS3-Capacity Loops*. Notwithstanding the analysis above, we emphasize that requesting carriers are not impaired without access to high-capacity loops where they seek to serve the same end-user location at a capacity sufficient to justify construction of a facility that we have deemed suitable for self-deployment. Based on the evidence in the record, we find that it is generally feasible for a carrier to self-deploy its own high-capacity loops when demand nears two DS3s of capacity to a particular location.[73] Therefore, even where our test requires DS3 loop unbundling, we limit the number of unbundled DS3s that a competitive LEC can obtain at each building to a single DS3 to encourage facilities-based deployment when such competitive deployment is economic.[74]

b. DS1-Capacity Loops

178. For DS1-capacity loops, we adopt a proxy test that does not require unbundling in any building served by a wire center with at least 60,000 business lines and at least four fiber-based collocators.[75] We eliminate DS1 loop unbundling in only a subset of those wire centers where we have eliminated DS3 loop unbundling because we recognize that stand-alone DS1 loops offer low revenue opportunities and are thus unlikely to be deployed competitively, but that competitive LECs often can offer DS1-capacity service over existing fiber-optic facilities in place to serve actual or expected higher-capacity customers. Although we conclude, for the purpose of our impairment analysis, that DS3 or higher capacity loops *can* be economically deployed in the areas served by wire centers with at least 38,000 business lines and at least four fiber-based collocators, we conclude they are likely actually to be widely deployed already (and thus available for potential channelization) only in wire centers with greater line counts. We emphasize that we do *not* require – either here or anywhere in this Order – actual deployment of a facility at a particular capacity before finding that carriers are not impaired without access to that facility. Rather, in the case of DS1 loops, we seek a high likelihood of fiber deployment at the *DS3 or higher* capacity before inferring that deployment of facilities to serve *DS1* customers using channelized higher-capacity facilities would be economic, because in the absence of such higher-capacity facilities, channelization at a lower capacity would be impossible.[76]

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[73] *See* SBC Comments at 5 (showing that multiple competitive LECs have self-deployed a number of loops at the 2 DS3 level and above); BOC UNE Fact Report 2004 at page III-3 & n.8; Time Warner Telecom Dec. 1, 2004 *Ex Parte* Letter at 1 (stating that requesting carriers are impaired without unbundled access to single DS3 loops).

[74] We note that our unbundled DS3 loop cap is smaller than the unbundled DS3 transport cap. *See supra* para. 131. The unbundled DS3 loop cap is based on record evidence indicating the feasibility of DS3 loop self-deployment at a two DS3 level. Once a competitive carrier's customer demand exceeds the capacity of a single DS3, the competitive carrier should plan to self-deploy DS3 capacity to that customer location. Because dedicated transport facilities must generally be considerably longer than loops, the construction costs associated with such facilities are generally far higher than the costs associated with loops, and the point at which self-provision becomes economic thus differs. This cost differential justifies a different capacity limitation on transport than on loops. *See Triennial Review Order*, 18 FCC Rcd at 17219, para. 388 n.1203.

[75] As described below, we also limit unbundling to ten DS1 loops per location. *See infra* para. 181.

[76] *See supra* para. 171.

179. Specifically, we find no impairment for DS1-capacity loops only in those wire center service areas with 60,000 business lines and four fiber-based collocators. These wire centers comprise a select group likely to be characterized by the most competitive deployment and the greatest revenue opportunities. Specifically, based on the data in the record, this rule will eliminate unbundled DS1 loops in wire centers accounting for approximately 8 percent of all BOC business lines.[77] As explained above, however, because these few wire centers account for a disproportionately high percentage of all business lines, they are likely to represent a correspondingly high degree of revenues available nationwide, and a disproportionate number of those in which competitive LECs seek to compete using UNEs.[78]

180. With respect to fiber deployment, we note that wire center service areas meeting the DS1 loop threshold of 60,000 business lines and four or more fiber-based collocators have an average of 13 fiber-based collocators, and 75 percent of these wire centers have 8 or more fiber-based collocators, indicating that there is particularly extensive competitive fiber build-out. Although we recognize that many of these carriers are likely serving only a fraction of the buildings in the wire center service area, such extensive fiber deployment suggests the likelihood of even more extensive fiber ring deployment than in those wire center service areas for which we have denied unbundled access to DS3 loops, and thus indicates that buildings are likely to be even closer to a ring than buildings in areas served by wire centers with more than 38,000 business lines but fewer than 60,000 business lines. Similarly, wire centers satisfying our criteria serve, on average, over 91,000 business lines each, and 75 percent of them serve at least 70,000 business lines, indicating particularly high revenue opportunities. These factors thus collectively suggest a very high likelihood that competitive LECs within the wire center service area will have deployed or could deploy DS3- or higher-capacity facilities within the wire center serving area, from which competitive LECs could deploy laterals in an economic manner, as well as the likelihood that competitive LECs will offer excess capacity on a wholesale basis. Further, as noted above, in those cases in which competitive deployment of high-capacity loops is not feasible, we note that competitive LECs may still serve specific buildings using tariffed incumbent LEC offerings.[79]

181. *Limitation on Multiple Unbundled DS1-Capacity Loops*. As with DS3 loops, we establish a capacity-based limitation on DS1 loop unbundling to apply where we have otherwise found impairment without access to such loops. Specifically, we establish a cap of ten DS1 loops that each carrier may obtain to a building.[80] The record indicates that a competitor serving a building at the ten DS1 capacity level or higher would find it economic to purchase a single DS3 loop rather than purchasing individual DS1 loops.[81] We therefore do not believe that it would be appropriate to allow requesting carriers to obtain unbundled access to that many DS1 loops. Requesting carriers seeking ten or more unbundled

[77] Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

[78] *See supra* note Error: Reference source not found.

[79] *See supra* para. 163.

[80] We impose a similar cap on the number of DS1 transport circuits that can be purchased by a given competitive LEC on a single route. *See supra* para. 128.

[81] For example, the cost of purchasing a UNE DS3 loop in Florida from BellSouth is 5.21 times that of a UNE DS1 loop ($368.88 to $70.74); in Texas from SBC, the ratio is 8.65 ($665.49); in New York from Verizon, the ratio is 9.6 ($801.75 to $83.50); in Illinois from SBC, the ratio is 5.45 ($335.73 to $61.56); in Washington from Qwest, the ratio is 10.83 ($745.93 to $68.56). XO Tirado Decl., Attach. B. Verizon states that, on average throughout its region, the UNE DS3 loop rate is 8 times the UNE DS1 loop rate. Verizon Dec. 8, 2004 Guyer/Glover *Ex Parte* Letter at 5; *see also* Time Warner Telecom Dec. 1, 2004 *Ex Parte* Letter at 1 n.3 (stating that between 7-9 DS1s at a single location could justify the deployment of a lateral in some markets).

DS1 loops are able to use DS3 loops instead, whether those loops are competitively deployed, or are obtained as UNEs.

4. Dark Fiber Loops

182. Based on the evidence in the record, we find that requesting carriers are not impaired on a nationwide basis without access to unbundled dark fiber loops because the barriers to entry relating to the deployment of dark fiber loops can be overcome through self-deployment of lit facilities at the OCn level.[82] We base this conclusion, in part, on record evidence demonstrating the feasibility of self-deployment of fiber loops at the two DS3 level.[83] Because of the high potential capacity of dark fiber facilities, revenue opportunities associated with dark fiber loops are even greater than those available in relation to two lit DS3 loops at a single location. Carriers seeking to use dark fiber – which is generally lit at capacities of two DS3s or above – are therefore likely able to self-deploy.[84]

183. As explained above, our record indicates that competitive LECs have been able to self-deploy fiber to some buildings.[85] Evidence submitted in the record reflects substantial deployment of competitive fiber loops at OCn capacity and competitive carriers confirm they are often able to economically deploy these facilities to the large enterprise customers that use them.[86] We find this evidence of deployment persuasive in demonstrating that competitive LECs can often overcome the barriers associated with fiber loop deployment. Specifically, we have above limited requesting carriers to a single lit DS3 loop per location, on the theory that at the multiple-DS3 level it is economic to self-deploy. Because we favor competitive deployment as a matter of policy, making dark fiber available on an unbundled basis would undermine the incentives established by our DS3 capacity limitation, because dark fiber can easily be lit at capacity levels exceeding this single DS3 cutoff. We therefore find no impairment for dark fiber loops.

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[82] BellSouth Petition for Clarification and/or Partial Reconsideration, CC Docket Nos. 01-338, 96-98, 98-147 at 18-19 (filed Oct. 2, 2003); Verizon Comments, CC Docket Nos. 01-338, 96-98, 98-147 at 27-28 (filed Nov. 6, 2003); *see also* SBC Reply, Joint Decl. of Scott J. Alexander and Rebecca L. Sparks (SBC Alexander/Sparks Reply Decl.) at paras. 17-22 (stating that a number of competitive LECs confirmed their deployment of high-capacity loops in the state proceedings); Verizon June 24, 2004 *Ex Parte* Letter, Exh. 5 (providing maps of competitive fiber deployment); SBC Aug. 18, 2004 *Ex Parte* Letter, Attach. (same); BellSouth Oct. 1, 2004 Reynolds *Ex Parte* Letter, Attach. (same).

[83] *See supra* para. 177.

[84] As we found in the *Triennial Review Order*, dark fiber loop construction involves substantial fixed and sunk costs. The primary costs associated with fiber deployment lie in the substantial sunk costs associated with physically laying the fiber cable, rather than with the electronics that must be added to serve customers. *Triennial Review Order* 18 FCC Rcd at 17165, para. 312. Despite these costs, the revenue possibilities of dark fiber are great enough to make self-deployment economic.

[85] *See supra* para. 154; *see also* ALTS *et al*. Comments at 55; QSI Study at 10.

[86] Thus, we reject Alpheus's assertion that operational barriers to loop deployment require a national finding that requesting carriers are impaired without access to dark fiber loops. Alpheus Comments at 33-50. We find that the additional obstacles to fiber deployment cited by Alpheus, including state and local moratoria on trenching of city streets where streets have been resurfaced in the last five years, are more appropriately addressed through enforcement of section 224 of the Act, imposing nondiscriminatory access obligations on incumbent LECs with respect to their poles, ducts, conduits, and rights-of-ways. Alpheus Comments at 35-36. Although we recognize that access through section 224 of the Act does not eliminate all costs associated with construction of new loop plant, we find that the revenue potential of dark fiber is great enough that competitive LECs are not impaired without access to dark fiber loops.

184. We recognize that in some cases, carriers might seek to light dark fiber at capacities that fall below the threshold at which we have determined – based on current deployment – that self-provision of high-capacity loops is economic. We nonetheless believe that a bar on dark fiber loop unbundling is reasonable to ensure appropriate deployment incentives. First, no matter how finely tuned our DS1 and DS3 loop unbundling rules, an overly broad dark fiber unbundling regime would undermine deployment, pushing competitors to use incumbent-owned fiber rather than building their own alternatives where it is economic to do so. Second, where self-deployment and/or competitive wholesale procurement of DS1- and DS3-capacity loops is not economic, such facilities remain available to requesting carriers on an unbundled basis, greatly diminishing the burdens placed on requesting carriers in the absence of unbundled dark fiber loops.[87]

185. Although the Commission found in the *Triennial Review Order* that competitive LECs were impaired without access to unbundled dark fiber loops even when they were not impaired without access to unbundled "lit" fiber loops at the OCn level, the D.C. Circuit's direction to make inferences regarding potential deployment leads us to reach a different conclusion here. In conducting its analysis in the *Triennial Review Order*, the Commission differentiated between evidence of deployment of dark fiber loops, defined as unused deployed fiber along a particular customer route that is not associated with a particular customer, and fiber loops at the OCn level, defined as "lit" fiber loops built for a known customer at the time of construction.[88] In light of the court's directive that we draw appropriate inferences regarding potential deployment, we abandon this distinction between dark fiber loops and OCn loops. Because carriers will only construct fiber loops in order to serve customers – and thus will only build to the extent that building "lit" fiber loops would be economic – we infer from evidence submitted into the record regarding deployment of lit OCn, and our prior determination of non-impairment with regard to lit OCn-capacity loops, that carriers are not impaired with regard to dark fiber, which is generally lit at the OCn capacity.[89]

5. Alternative Loop Unbundling Proposals

186. Commenters have proposed various alternatives to the unbundling determinations that we have adopted herein for high-capacity loops. We reject those proposals to the extent that they differ from the conclusions that we reach above.

187. We specifically reject assertions by incumbent LECs that a national "no impairment" finding is appropriate with regard to high-capacity loops because competitors have deployed their own such loops to many buildings. The incumbent LECs ground these claims with lists of "lit" buildings and maps

[87] We note that the concerns underlying our blanket refusal to require dark fiber loop unbundling are less salient in the context of dark fiber transport. In the transport context, we have permitted unbundling of up to 12 DS3-capacity transport UNEs between some wire centers. Thus, it is far more likely that competitive carriers will light dark fiber transport at capacities at or under the applicable cap (*i.e.*, 12 DS3s) than that they would do so at or below the cap applicable to DS3 loops (*i.e.*, a single DS3). In these cases, denial of unbundled access to dark fiber transport would incent greater use of the lit UNE transport DS3s, whereas permitting access to dark fiber transport promotes competitive investment in the requesting carriers' own facilities – *i.e.*, the optronics used to "light" dark fiber. Because we encourage facilities deployment where possible, we thus unbundle dark fiber transport, which is likely to be used at capacities below the relevant cap, whereas we bar all access to dark fiber loops, which are more likely to be lit at capacities beyond the cap and thus to undermine competitive LECs' incentives to construct competitive high-capacity loops where we have determined that construction of such loops is economic.

[88] *Triennial Review Order*, 18 FCC Rcd at 17168, para. 315 n.931.

[89] Alpheus Comments at 39; *see also Triennial Review Order*, 18 FCC Rcd at 17155-56, 17168, paras. 298, 315 n.931 (discussing competitive LECs' deployment of fiber to meet demand for a lit service).

showing competitive fiber deployment in downtown parts of major metropolitan areas.[90] That evidence has little probative value in an impairment analysis for DS1 or DS3 loops. The maps provided by the incumbent LECs do not specify the capacity of service demanded in particular locations along the competitive routes identified; if those locations require capacity only at multiple DS3 or higher capacities, and are providing revenues commensurate with those capacities, then the presence of competitive routes is not relevant to the question whether it is economic to deploy to serve customers at the DS1, or even the single DS3, capacity level. Similarly, as described above, the costs of deployment will depend in part on the length of the lateral that must be constructed between the building being served and the splice point on the fiber ring. The incumbent LECs' maps do not indicate the placement of splice points, rendering evaluation of such costs impossible.

188. Second, the incumbent LECs' maps do not indicate whether carriers operating the fiber depicted are using these facilities to provide local service or merely interoffice transport, long-distance service, wireless service, or some combination of services other than local exchange service. Facilities used to provide these services would likely aggregate very large volumes of traffic, which would confer correspondingly large revenues. The presence of such facilities thus would not speak directly to our impairment inquiry, which must assess whether competitors have found deployment for the provision of *local exchange service* (either alone or in concert with other services) to be economic at the DS1 or DS3 capacities.

189. Third, even if we were able to surmount the weaknesses described above, and could rely on the incumbent LEC maps as evidence that unbundling of high-capacity loops for the provision of local exchange service was inappropriate in some cases, the incumbent LECs have provided no evidence in our record linking those maps to administrable tests allowing for a sufficient degree of geographic nuance. While various maps purport to show competitively deployed fiber in metropolitan areas within major MSAs, they do not indicate sufficiently pervasive deployment to justify an MSA-wide bar on unbundling, and provide no administrable mechanism to establish in which parts of an MSA the incumbent LEC should be required to offer unbundled DS1 and DS3 loops. In these circumstances – particularly where we reject for various reasons the use of an MSA-wide test[91] – the incumbent LEC maps cannot justify any particular approach to unbundling.[92]

190. We also reject incumbent LEC proposals to base "nonimpairment" findings on relatively low business line counts, without assessing the degree of fiber deployment in a wire center serving area. For example, BellSouth proposes that we find impairment for DS3 loops only in wire center service areas including fewer than 5,000 business lines.[93] SBC similarly proposes that we find impairment for DS1 loops only in wire centers serving fewer than 15,000 business lines.[94] While we agree with these incumbent LECs that wire center service areas are useful as proxies for the dense urban areas where

[90] *See, e.g.*, Verizon June 24, 2004 *Ex Parte* Letter, Exh. 5 (providing maps of competitive fiber deployment); SBC Aug. 18, 2004 *Ex Parte* Letter, Attach. (same); BellSouth Oct. 1, 2004 Reynolds *Ex Parte* Letter, Attach. (same).

[91] *See supra* para. 164; *see also supra* para. 82.

[92] As explained above, the incumbent LECs proposed tests based on line counts, not on line density. Thus, while the incumbent LECs' maps indicate the presence of competitive fiber in areas that may remain subject to high-capacity loop unbundling, we note that this fact may be due to high business line *densities* that are not accounted for by the approach advocated by those same incumbent LECs: line counts considered apart from the corresponding land area.

[93] BellSouth Comments at 44.

[94] SBC Comments at 89.

economic deployment of fiber facilities can occur, we find that the line counts proposed by BellSouth and SBC are too low to indicate sufficient revenues to justify deployment. As described above, we reject proposals based solely on business line counts because sufficient collocation in the wire center is essential to show that the buildings in the wire center service area are likely within reasonable proximity to alternative fiber networks. We conclude that our tests, which account for both business line counts *and* fiber-based collocation, more accurately identify those markets where fiber can be competitively deployed, and those markets where such fiber is likely to exist such that it can be channelized at lower capacities in an economic manner.

191. The tests proposed by BellSouth and SBC, in contrast, would prohibit unbundling in those areas where competitors are impaired. Whereas wire centers that meet our thresholds for non-impairment with regard to DS3 loops have, on average, over 65,000 business lines and over 10 fiber-based collocators, the class of wire centers satisfying BellSouth's 5,000 line test would have, on average, only about 16,000 business lines and fewer than 2 fiber-based collocators. In fact, three quarters of such wire centers would have three or fewer fiber-based collocators, and almost 40 percent would have none at all. These figures indicate that the wire centers identified by the test BellSouth proposes do not generally exhibit extensive competitive fiber deployment, and do not offer sufficient revenue opportunities to incent such deployment. Thus, competitors seeking to offer DS3-capacity service in these wire centers are not likely to be able to construct short laterals from nearby competitive fiber rings, and remain impaired without access to unbundled DS3 loops. Similarly, the wire centers that meet our thresholds for non-impairment with regard to DS1 loops have, on average, about three times as many business lines and fiber-based collocations as the wire centers that would meet SBC's 15,000 business line cut-off. In the wire centers identified by the test SBC proposes, competitors seeking to offer DS1-capacity service are therefore not likely to be able to rely on extant higher-capacity competitive fiber facilities, and will be unlikely to be able to channelize such facilities for provision of DS1-capacity service. SBC's proposed threshold would therefore bar unbundling in areas other than the central business districts of large urban areas where competitors – *i.e.*, areas where competitors are impaired without unbundled DS1-capacity loops.

192. Verizon argues that there should be no unbundling of DS1 loops in MSAs in which Verizon has qualified for any degree of special access pricing flexibility.[95] As we explained in the *Triennial Review Order*, basing impairment determinations on a pricing flexibility determination is inappropriate because the goal of our pricing flexibility rules is to protect consumers from anticompetitive pricing, while our unbundling rules reflect a different set of statutory goals.[96] The impairment inquiry evaluates the prospects for economic duplication of the facilities at issue or use of alternative (*i.e.*, non-incumbent LEC) offerings. As described above, the pricing flexibility inquiry assess entirely different considerations.[97] Thus, whether or not an incumbent LEC qualifies for pricing flexibility in an MSA has little bearing on whether competitive LECs are impaired in that area without access to DS1 loops in any part of that MSA – much less whether they are impaired (or not) throughout the *entire* MSA. We reiterate that "the presence of a single competitive LEC's collocated transport facility as a trigger for purposes of . . . our pricing flexibility rules, is not sufficient evidence that facilities-based competitive entry into a market at the local loop level is economically feasible."[98]

[95] Verizon Comments at 83-85.

[96] *Triennial Review Order*, 18 FCC Rcd at 17182-84, para. 341 ("[B]ecause the special access revenue triggers require only a single collocated competitor to purchase substantial amounts of special access in a concentrated area, this test provides little, if any, indication that even that competitor has been able to widely, if at all, self-deploy alternative loop facilities in that area.").

[97] *See supra* para. 62.

193. We reject incumbent LECs' assertions that the existence of intermodal competition – particularly from cable providers – in the high-capacity loop market warrants a nationwide finding that competitive LECs are not impaired without access to unbundled high-capacity loops.[99] First, the record before us contains little evidence that cable companies are providing service at DS1 or higher capacities. Although the incumbent LECs attempt to show that cable companies are a significant presence in the enterprise loop market, the record in fact suggests that most of the businesses served by cable companies are not large enterprise customers, but mass market small businesses that would never generate enough traffic to require a high-capacity loop.[100] The record indicates that cable providers are focusing their marketing strategies on residential users and "small and medium businesses . . . that are near the residential network."[101] It is therefore reasonable to infer that most of the businesses that cable companies serve, or are likely to serve, are home offices or very small stand-alone businesses, neither of which typically requires high-capacity loop facilities. In addition, the record suggests that where cable companies do provide service to business customers, they provide cable modem service, rather than service that is comparable to service provided over high-capacity loops.[102] Competitive LEC commenters explain that bandwidth, security, and other technical limitations on cable modem service render it an imperfect substitute for service provided over DS1 loops.[103] Commenters also note that businesses that

[98] *Triennial Review Order*, 18 FCC Rcd at 17183, para. 341; *see also supra* paras. **155**, 164 (rejecting an MSA test for impairment).

[99] *See, e.g.*, Letter from Jonathan Banks, Vice President-Executive and Federal Regulatory Affairs, BellSouth, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2 (filed Nov. 8, 2004); Qwest Reply at 57-64. The record does not indicate that other intermodal options, such as fixed wireless and satellite, offer significant competition in the enterprise loop market. *See, e.g.*, Letter from Praveen Goyal, Assistant General Counsel for Government Affairs, Covad, *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 4-5 (filed Nov. 19, 2004) (noting that there are only 300,000 satellite broadband subscribers nationwide (citing BOC UNE Fact Report 2004 at I-12), and that together satellite and fixed wireless broadband represent less than 2% of the total high-speed lines in service (citing Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2003*, Table 1 (June 2004)); *see also* McLeodUSA Reply at 2-3 (noting that the two competitive LECs that have invested heavily in fixed wireless service have gone bankrupt).

[100] *See, e.g.*, Qwest Reply at 59 (conceding that "[t]here do not appear to be any hard data available concerning the actual number of high-capacity business lines provided by cable operators"). Qwest indicates that the businesses that are primarily served and targeted by cable companies are small-to-medium businesses, most of which have fewer than 20 employees. *Id.* We do not believe, however, that the number of people a business employs is necessarily a reliable indicator of whether that business is likely to require high-capacity services; nor does the number of employees provide a reliable measure for the extent to which cable modem service competes with services provided over high-capacity loops. We therefore decline to draw any conclusions from the employee-based distinctions offered by Qwest.

[101] *See* Qwest Reply at 62 (quoting Cox's description of its business strategy).

[102] *See, e.g.*, Cbeyond Nov. 19, 2004 *Ex Parte* Letter at 2 ("BellSouth's evidence [of competition between cable companies and wireline telephone companies] improperly conflates asymmetrical, relatively low bandwidth Hybrid Fiber Coax ('HFC') services provided over the cable companies' own infrastructure with higher capacity loops and transport which the cable companies can provide over their own facilities only in very limited circumstances."); McLeodUSA Reply at 2 ("Assuming *arguendo* that 'some' estimated number of businesses are using 'some' cable modem services, there is not record evidence that these services are used for anything more than Internet access service or video. Nor is there record evidence that businesses are substituting cable modem service for DS1 and high-capacity telecommunications services that small, medium and large businesses require.").

[103] *See* Cbeyond Nov. 19, 2004 *Ex Parte* Letter at 3-4 (explaining that business customers may find cable modem service undesirable due to limits on bandwidth and upstream capacity, as well as security concerns and service

do require DS1 loops are willing to pay significantly more for them than the cost of a cable modem connection, which also indicates that the two are not interchangeable.[104] Finally, at least two competitors maintain that, based on their internal data, they rarely lose enterprise customers to cable providers.[105]

194. Second, to the extent that intermodal providers are serving enterprise customers at the DS1 or higher capacity, the impairment analysis we adopt today for high-capacity loops will account for that competition. For example, as with our dedicated transport test, our reliance on fiber-based collocation captures intermodal competitors' facilities, including those using fixed-wireless and cable facilities, which often collocate in at least some locations.[106] Further, as we explained in our discussion of dedicated interoffice transport, our impairment analysis is designed to assess revenue opportunities, and denies unbundling based in part on those opportunities regardless of whether they will be seized by wireline competitive LECs or intermodal competitors.[107] Thus, our tests for high-capacity loops will recognize collocation by intermodal providers, as well as the revenue opportunities available to such providers, and each will contribute toward a finding of "no impairment."

D. Transition Plan

195. Because we remove significant high-capacity loop unbundling obligations formerly placed on incumbent LECs, as described above, we find it prudent to establish a plan to facilitate the transition from UNEs to alternative loop options.[108] Specifically, we adopt a twelve-month plan for competing carriers to transition to alternative facilities or arrangements, including self-provided facilities, alternative facilities offered by other carriers, or tariffed services offered by the incumbent LEC. As discussed below, we find it is appropriate to adopt a longer, eighteen-month, transition plan for dark fiber loops. These transition plans shall apply only to the embedded customer base, and do not permit competitive LECs to add new high-capacity loop UNEs pursuant to section 251(c)(3) where the Commission has determined that no section 251(c) unbundling requirement exists.

196. We believe it is appropriate to adopt a longer transition period for DS1 and DS3 loops than the six-month transition period that was proposed in the *Interim Order and NPRM*, because we find that the twelve-month period provides adequate time for both competitive LECs and incumbent LECs to perform the tasks necessary to an orderly transition, including decisions concerning where to deploy,

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slowdowns due to the shared architecture of hybrid fiber coaxial cable).

[104] *See* ALTS *et al*. Comments at 33; McLeodUSA Reply at 2.

[105] NuVox, for example, states that only a tiny fraction of its customer losses between January and October 2004 were to cable companies, and even those may have been to wireline competitive LEC affiliates. NuVox Nov. 22, 2004 *Ex Parte* Letter at 3-5. Cbeyond similarly asserts that very few telephone numbers have been ported from Cbeyond to a cable company or vice versa. Cbeyond Nov. 19, 2004 *Ex Parte* Letter at 4. None of the BOCs provide comparable numbers indicating how many enterprise customers they have lost to cable providers. Qwest, for example, indicates that it has lost lines to Cox in Omaha, but those losses are to the circuit-switched telephony service offered by Cox's competitive LEC affiliate, rather than to its cable operation. Qwest Reply at 50.

[106] *See supra* para. 95.

[107] *See id*.

[108] To the extent that a particular high-capacity loop no longer subject to unbundling pursuant to section 251(c)(3) has been used as part of an EEL, our existing rules governing conversions and commingling apply. *See Triennial Review Order*, 18 FCC Rcd at 17348-50, paras. 585-89 (conversions); *id*. at 17342-48, paras. 579-84 (commingling).

purchase, or lease facilities.[109] Consequently, carriers have twelve months from the effective date of this Order to modify their interconnection agreements, including completing any change of law processes. At the end of the twelve-month period, requesting carriers must transition all of their affected high-capacity loops to alternative facilities or arrangements.[110]

197. Because incumbent LECs generally do not offer dark fiber loops as a tariffed service regulated under sections 201 and 202 of the Act,[111] and because it may take time for competitive LECs to negotiate IRUs or other arrangements with incumbent or competitive carriers, we find that a more lengthy transition plan is warranted for transitioning carriers from the use of unbundled dark fiber to alternative facilities.[112] Thus, as in the case of dark fiber transport,[113] we adopt an eighteen-month transition period for dark fiber loops.[114] We expect that the extra time is necessary to permit carriers the time necessary to migrate to alternative fiber arrangements, including self-deployed fiber.

198. We adopt the *Interim Order and NPRM*'s proposal regarding transition pricing of unbundled high-capacity loops for which the Commission determines that no section 251(c) unbundling requirement exists. Thus, during the relevant transition period, any high-capacity loop UNEs that a competitive LEC leases as of the effective date of this Order, but for which the Commission determines that no section 251(c) unbundling requirement exists, shall be available for lease from the incumbent LEC at a rate equal to the higher of (1) 115 percent of the rate the requesting carrier paid for the loop element on June 15, 2004, or (2) 115 percent of the rate the state commission has established or establishes, if any, between June 16, 2004 and the effective date of this Order, for that loop element.[115] We believe that the moderate price increases help ensure an orderly transition by mitigating the rate shock that could be suffered by competitive LECs if TELRIC pricing were immediately eliminated for these network elements, while at the same time, these price increases, and the limited duration of the transition (which will require current UNE purchasers to more quickly make new service arrangements), provide significant protection of the interests of incumbent LECs in those situations where unbundling is not required.[116] Of course, the

[109] *See, e.g.*, ALTS *et al*. Comments at 70-72 & n.113 (discussing the steps carriers must take to transition away from unbundled incumbent LEC transmission facilities).

[110] We recognize that some high-capacity loops with respect to which we have found impairment may in the future meet our thresholds for non-impairment. For example, as competition grows, competitive LECs may construct new fiber-based collocations in a wire center that currently has more than 38,000 business lines but 3 or fewer collocations. In such cases, we expect incumbent LECs and requesting carriers to negotiate appropriate transition mechanisms through the section 252 process.

[111] *See* 47 U.S.C. §§ 201, 202.

[112] Alpheus Comments at 57; Alpheus Reply at 29.

[113] *See supra* para. 144.

[114] Thus, for dark fiber loops, carriers have eighteen months from the effective date of this Order to modify their interconnection agreements, including completing any change of law processes. At the end of the eighteen-month period, requesting carriers must transition the affected dark fiber loop UNEs to alternative facilities or arrangements.

[115] *Interim Order and NPRM*, 19 FCC Rcd at 16797-99, para. 29. These prices apply to DS1, DS3, and dark fiber loops. To the extent that a state public utility commission order raises some rates and lowers others for high-capacity loops, the incumbent LEC may adopt either all or none of these high-capacity loop rate changes. High-capacity loops no longer subject to unbundling shall be subject to true-up to the applicable transition rate upon the amendment of the relevant interconnection agreements, including any applicable change of law processes.

[116] *See id.* at 16799, para. 30.

transition mechanism adopted here is simply a default process, and pursuant to section 252(a)(1), carriers remain free to negotiate alternative arrangements superseding this transition period. The transition mechanism also does not replace or supersede any commercial arrangements carriers have reached for the continued provision of high-capacity loop facilities or services.

VII. MASS MARKET LOCAL CIRCUIT SWITCHING

A. Summary

199. We reexamine incumbent LECs' obligations to unbundle mass market local circuit switching in light of the D.C. Circuit's vacatur of our previous rules. In particular, we have revised our approach to impairment pursuant to *USTA II*'s instruction to draw appropriate inferences about potential competition in one market from evidence of competitive deployment in another market. Applying the court's guidance to the record before us, we impose no section 251 unbundling requirement for mass market local circuit switching nationwide.[1] We conclude, based on the record here, and the reasonable inferences we draw from it, that competitive LECs not only have deployed a significant, growing number of their own switches, often using new, more efficient technologies such as packet switches, but also that they are able to use those switches to serve the mass market in many areas, and that similar deployment is possible in other geographic markets. Additionally, we find that the BOCs have made significant improvements in their hot cut processes that should better situate them to perform larger volumes of hot cuts ("batch hot cuts") to the extent necessary.[2] We find that these factors substantially mitigate the *Triennial Review Order*'s stated concerns about circuit switching impairment. Moreover, regardless of any limited potential impairment requesting carriers may still face, we find that the continued availability of unbundled mass market switching would impose significant costs in the form of decreased investment incentives, and therefore we conclude not to unbundle pursuant to section 251(d)(2)'s "at a minimum" authority. Finally, we adopt a transition plan that requires competitive LECs to submit orders to convert their UNE-P customers to alternative arrangements within twelve months of the effective date of this order. This transition period shall apply only to the embedded customer base, and does not permit competitive LECs to add new customers using unbundled access to local circuit switching. During the twelve-month transition period, which does not supersede any alternative arrangements that carriers voluntarily have negotiated on a commercial basis, competitive LECs will continue to have access to UNE-P priced at TELRIC plus one dollar until the incumbent LEC successfully migrates those UNE-P customers to the competitive LECs' switches or to alternative access arrangements negotiated by the carriers.[3]

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[1] Competitive LECs have used unbundled local circuit switching exclusively in combination with incumbent LEC loops and shared transport in an arrangement known as the unbundled network element platform (UNE-P).

[2] A hot cut is a largely manual process requiring incumbent LEC technicians to manually disconnect the customer's loop, which was hardwired to the incumbent LEC switch, and physically re-wire it to the competitive LEC switch, while simultaneously reassigning (*i.e.*, porting) the customer's original telephone number from the incumbent LEC switch to the competitive LEC switch. *Triennial Review Order*, 18 FCC Rcd at 17266, para. 465 n.1409. Since the *Triennial Review Order* was adopted, major users of UNE-P, such as AT&T, have announced that they are abandoning that method of entry into the mass market in favor of alternatives such as VoIP, thus reducing the likely volume of hot cuts required in the absence of unbundled local circuit switching.

[3] Because this Order modifies our unbundling framework and adopts new rules applicable to unbundled local switching, we dismiss as moot the petition for reconsideration filed on October 2, 2003 by NASUCA that asked the Commission to reconsider various aspects of the impairment standard and unbundled local switching rules adopted in the *Triennial Review Order*. *See* National Association of State Utility Consumer Advocates Petition for Reconsideration, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 2, 2003).

B. Background

200. In prior orders addressing the unbundling of network elements, the Commission concluded that incumbent LECs must provide access to unbundled local switching and defined the switching element to include "line-side facilities," "trunk-side facilities," and all the features, functions, and capabilities of the local circuit switch.[4] As noted above, competitors have used unbundled local circuit switching exclusively in combination with incumbent LEC loops and shared transport in an arrangement known as the unbundled network element platform (UNE-P).[5] In contrast, requesting carriers that do not rely on incumbent LEC switching generally obtain unbundled local loops (UNE-L) from incumbent LECs and connect these loops to their own switches.[6]

201. In the *Triennial Review Order*, the Commission concluded that, in the DS1 enterprise market, competitive LECs generally will not be afforded unbundled switching, but allowed states to petition the Commission in cases in which they found that this general nationwide finding did not apply.[7] In reviewing that decision, the D.C. Circuit observed that "the CLECs do not contradict the Commission's observation about the absence of evidence of impairment either nationwide or in specific markets," and upheld these enterprise switching rules.[8] Likewise, the Commission concluded that competitive LECs were not impaired without unbundled access to packet switching.[9]

202. With respect to mass market local circuit switching, the Commission found that competitive LECs faced impairment on a national basis arising from the "hot cut" process used to transfer a customer's loop from one LEC to another. However, the Commission asked the state commissions to evaluate particular circumstances of markets within their jurisdictions, and authorized them to rebut our nationwide impairment findings in state proceedings on the basis of actual and potential competitive deployment.[10] In particular, the Commission instructed the states to define the relevant geographic markets for purposes of this analysis, to establish a cutoff between the "mass market" and "enterprise

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[4] *See Local Competition Order*, 11 FCC Rcd at 15706, para. 412. We retain the *Triennial Review Order*'s definition of local circuit switching to encompass line-side and trunk-side facilities, plus the features, functions, and capabilities of the switch, which was not challenged in the D.C. Circuit or in this proceeding. *Triennial Review Order*, 18 FCC Rcd at 17245-46, para. 433; 47 C.F.R. § 51.319(c)(1). We likewise readopt here the definitions of "operator services" and "directory assistance" set forth in the *UNE Remand Order*, and readopted in the *Triennial Review Order*. *Triennial Review Order*, 18 FCC Rcd at 17246, para. 433 n.1326 (citing *UNE Remand Order*, 15 FCC Rcd at 3892, para. 443). To the extent that unbundling of shared transport, signaling, and call-related databases were contingent upon the unbundling of local circuit switching in the *Triennial Review Order*, the availability of those elements on an unbundled basis continue to rise or fall with the availability of unbundled local circuit switching. *See Triennial Review Order*, 18 FCC Rcd at 17319-20, 17323-34, paras. 533-34, 542-60.

[5] *Triennial Review Order*, 18 FCC Rcd at 17245, para. 431.

[6] *Id*. UNE-L describes an entry mode where a competitive LEC combines unbundled loops procured from the incumbent LEC with the competitive LEC's own switching and transport network.

[7] *Id*. at 17258-63, paras. 451-58.

[8] *USTA II*, 359 F.3d at 586-87. Although the D.C. Circuit upheld our enterprise switching rules and, consequently, they are not at issue here, *see id*., we believe that our analysis here with respect to mass market local circuit switching would be likely to apply equally to DS1 enterprise switching.

[9] *Triennial Review Order*, 18 FCC Rcd at 17321-22, paras. 537-39. The Commission's finding regarding packet switching was not challenged in the D.C. Circuit.

[10] *Id*. at 17263-77, 17290-310, paras. 459-75, 493-520.

market" for users with multiple DS0 lines, to establish batch hot cut processes, and to evaluate the usefulness of temporary, or "rolling," access to unbundled local circuit switching.[11]

203. On appeal, the D.C. Circuit vacated the rules that allowed states to conduct impairment analyses, as well as the Commission's national finding of impairment for mass market switching.[12] The court concluded that section 251(d)(2) of the Act requires the Commission itself to make the ultimate unbundling determinations necessary to establish the rules required under section 251(d)(1), and thus rejected the Commission's decision to confer upon the states final rulemaking authority.[13] In the absence of those granular state proceedings, the court also rejected the Commission's national impairment finding, particularly in light of evidence that hot cut costs in some areas appeared low enough to facilitate competitive entry and in light of prior Commission evaluations of the adequacy of incumbent LEC hot cut processes.[14] The court also provided guidance for the Commission's general unbundling analysis, including several observations relevant to our remand analysis of mass market local circuit switching, requiring us, for example, to weigh the investment disincentives associated with unbundling.[15] In the *Interim Order and NPRM*, the Commission sought comment on, among other things, whether it should retain the unbundling requirement for local circuit switches serving the mass market, in light of the *USTA II* decision and any other changed circumstances.[16]

C. Mass Market Unbundling Analysis

204. Based on the evidence of deployment and use of circuit switches, packet switches, and softswitches, and changes in incumbent LEC hot cut processes, we determine not only that competitive LECs are not impaired in the deployment of switches, but that it is feasible for competitive LECs to use competitively deployed switches to serve mass market customers throughout the nation. Further, regardless of any potential impairment that may still exist, we exercise our "at a minimum" authority and conclude that the disincentives to investment posed by the availability of unbundled switching, in combination with unbundled loops and shared transport, justify a nationwide bar on such unbundling. Nor do we find that other factors, not relied upon in the *Triennial Review Order* impairment analysis, warrant unbundling of mass market local circuit switching.

1. Scope of Geographic Markets Reached By Competitive Switches

205. In conducting our impairment analysis, we begin by considering evidence of competitive LEC circuit switch deployment, which is the best indicator of whether competitive LECs have been able to overcome barriers to entry with respect to facilities deployment. We find that the record demonstrates significant nationwide deployment of switches by competitive providers. Because our examination of switching investment shows no significant variation in switch deployment throughout the country, we adopt a national approach to local circuit switching.

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[11] *Id*. at 17826-88, paras. 487-90 (batch hot cut processes); *id*. at 17291-94, paras. 495-97 (defining the market); *id*. at 17310-12, paras. 521-24 (rolling use); *id*. at 17293-94, 17312-13, paras. 497, 525 (enterprise market cut-off for multi-line DS0 customers).

[12] *USTA II*, 359 F.3d at 564-71.

[13] *Id*. at 564-68.

[14] *Id*. at 569-71.

[15] *Id*. at 572-73.

[16] *Interim Order and NPRM*, 19 FCC Rcd at 16788-90, paras. 8-13.

206. As the Commission found in the *Triennial Review Order*, there has been a significant increase in competitive LEC circuit switch deployment over time, growing approximately 71 percent from 700 switches in 1999 to approximately 1,200 switches in 2003.[17] Incumbent LEC data indicate that competitive carriers are serving over 3 million mass market lines with those switches.[18] Further, pursuant to our "reasonably efficient competitor" standard, we consider competitive LECs' deployment of newer, more efficient switching technologies, such as packet switches.[19] Incumbent LECs cite evidence that, in the time following the *Triennial Review Order*, competitive LECs have focused on deploying softswitch technology and packet switches.[20] These switches are less expensive than traditional circuit switches and are more scalable.[21] This evidence indicates that competitive LECs are not impaired in the deployment of competitive switches. As discussed below, we also find that competitive LECs are able to use switches, once deployed, to serve the mass market.

207. D.C. Circuit precedent instructs us to infer the absence of impairment "where the element in question – though not literally ubiquitous – is significantly deployed on a competitive basis."[22] We find, based on the evidence in this record, that the fact that competitive LECs are able to serve larger

[17] BOC UNE Fact Report 2004 at II-37. In addition, the record reveals that competitive switches are deployed not only in the densest urban areas, but in a range of less densely populated areas as well. *See, e.g.*, SBC Comments at 40 and n.118 (citing evidence of competitive switch deployment in "Springfield (Illinois); Seguin (Texas); Mojave (California); Lenexa (Kansas); Mishawaka (Indiana); Appleton (Wisconsin); and numerous other small towns"); Verizon Comments, Attach. J at 7-8 (citing examples of carriers serving mass market customers using competitive switches in low-density (fewer than 5,000 access lines) wire centers within the Boston, Massachusetts MSA, the Worcester, Massachusetts MSA, the Pittsburgh, Pennsylvania MSA, and the Providence, Rhode Island MSA).

[18] BOC UNE Fact Report 2004 at II-42. Various parties question the accuracy and usefulness of the data cited by the incumbent LECs. *See, e.g.*, Dialog Reply at 8; PACE *et al*. Reply at 6-7. It nonetheless is clear both that a significant number of competitive switches have been deployed nationwide, and that those switches are being used to serve some mass market customers. Moreover, as we discuss below, we find that competitive LECs generally are not impaired in their ability to serve mass market customers using competitive switches, regardless of the precise number of mass market customers being served using competitive switches today. Thus, our conclusions here do not rely on any specific numbers regarding the extent of competitive switch deployment.

[19] The Commission has defined "packet switching capability" as "'routing or forwarding packets, frames, cells or other data units based on address or other routing information contained in the packets, frames, cells or other data units' as well as the functions performed by DSLAMs." *Triennial Review Order*, 18 FCC Rcd at 17320, para. 535. Packet switches can be used to provide advanced services to all classes of customers, such as xDSL services. *UNE Remand Order*, 15 FCC Rcd at 3835-36, para. 307.

[20] BOC UNE Fact Report 2004 at II-37 through 38. BOC data states that as of year-end 2003, competitive LECs had deployed more than 8,700 packet switches.

[21] *Id*. For example, "[s]oftswitches offer two major advantages over conventional switches: cost and capabilities. They are less expensive to buy, take up less space, use less power and are easier to program and maintain." R. Poe, Next-Generation Switching Gives Power to Small Players, America's Network (June 1, 2004), cited in *id*. at II-37 n.194.

[22] *USTA I*, 290 F.3d at 422 (quoted by *USTA II*, 359 F.3d at 574); *see also supra* paras. 22, 41-45). While the Commission has recognized that competitive deployment is the best evidence of the lack of impairment, the absence of such deployment does not, in itself, demonstrate impairment. The Commission thus declines to adopt approaches that would require unbundling of switching in markets that do not *already* have a significant number of competitive switches deployed. *See, e.g.*, MCI Comments at 103-19; Texas Office of Public Utility Council *et al*. Comments at 13-14; NASUCA Comments at 23; Utah Committee of Consumer Services Comments at 14-16; ACN Reply at 2-3, 4-5; New Jersey Ratepayer Advocate Reply at 11, 19-20, 37-44, 55-58; PACE *et al*. Reply at 41-42.

geographic areas using self-provided switches mitigates to some extent the incumbent LECs' advantages of scale.[23] Competitive LECs are able to serve larger geographic areas because they can deploy higher capacity switches and use dedicated transport in combination with those switches to serve customers throughout a wider geographic area, beyond the particular wire center where the switch is located.[24] Thus, even though competitive circuit switches are not deployed as ubiquitously as incumbent LEC circuit switches, this does not prove that competitive LECs are impaired in wire centers where there currently are no competitive switches, as competitive LECs can and do serve such areas using switches located in other areas. In addition, pursuant to the "reasonably efficient competitor" standard discussed above, we evaluate impairment based on the technology a reasonably efficient competitive LEC would deploy.[25] Competitive LECs can rely on newer, more efficient technology than incumbent LECs (whose networks have been deployed over decades), such as packet switches.[26] Further, the ability of competitive circuit switches to serve wider geographic regions reduces the direct, fixed cost of purchasing circuit switching capability and allows competitive carriers to create their own switching efficiencies.[27]

208. Our conclusion that competitive LECs can deploy and use competitive switches is supported by the evidence of competitive LECs employing UNE-L strategies. The BOCs submit evidence demonstrating that competitive LECs are providing service using competitive switching, in combination with unbundled incumbent LEC loops, to serve mass market customers in at least 137 of the top 150 MSAs.[28] The New York DPS also states that, in New York alone, there are 20 wire centers with three or more competitive LEC switches serving residential customers.[29] Other state proceedings also revealed the presence of competitive LECs serving the mass market using self-provided switches.[30] Indeed, the

[23] *See, e.g.*, MCI Comments at 103-19; Texas Office of Public Utility Council *et al*. Comments at 13-14; NASUCA Comments at 23; Utah Committee of Consumer Services Comments at 14-16; ACN Reply at 2-3, 4-5; New Jersey Ratepayer Advocate Reply at 11, 19-20, 37-44, 55-58; PACE *et al*. Reply at 41-42; *Triennial Review Order*, 18 FCC Rcd at 17282, para. 482.

[24] *See Triennial Review Order*, 18 FCC Rcd at 17010, para. 42; *see also* Qwest Comments at 54; Verizon Comments at 105; SBC Comments at n.130; Letter from Susan P. Kennedy, Commissioner, California Public Utilities Commission, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, WC Docket No. 04-313 at 5 (filed Oct. 18, 2004) (Commissioner Kennedy Oct. 18, 2004 *Ex Parte* Letter).

[25] *See supra* Part IV.A.

[26] Packet switches are newer, cheaper, and easier to deploy than traditional circuit switches. *See supra* para. 206. Moreover, in contrast to other network elements, such as loops or transport, switches have a significant capacity at a relatively small cost per customer and are not inherently linked to the service provided to any particular customer.

[27] PAETEC Comments at 3 (describing its use of a Class 5 switch to provide service to neighboring LATAs); *see also, e.g.*, BellSouth Comments at 20; SBC Comments at 42; Verizon Comments at 105-06; Qwest Comments at 54. For example, Verizon states that the average reach of competitive switches in the Boston MSA is over 40 miles. Verizon Comments at 106. BellSouth submitted evidence that a single switch in Tennessee was being used to provide service in six states in BellSouth's territory as well as four other out-of-region states. BellSouth Comments, Attach. 1 at 12; *see also, e.g.*, BellSouth Comments, Attach. 1 at 12-14 (discussing the geographic reach of competitive switches); SBC Reply at 72 (citing statements by MCI that it is able to serve large geographic areas from a single switch).

[28] BOC UNE Fact Report 2004 at II-42.

[29] New York DPS Comments at Attach. 2.

[30] *See, e.g.*, Maryland PSC Comments, Attach. 4 at 14 (staff evaluation for purposes of the Maryland nine month proceedings); California PUC *et al*. Comments, Attach. at 66 (staff evaluation for purposes of the California nine month proceedings); Texas Office of Public Utility Council *et al*. Comments at 38, 47 (citing Texas data).

notion that all requesting carriers need access to UNE-P to serve the mass market is belied by the fact that GCI, Knology, FDN Communications, Cavalier Telephone, McLeodUSA, and others compete using UNE-L strategies.[31]

209. In light of this evidence of successful entry using UNE-L strategies, we disagree with competitive LECs that claim that a requesting carrier needs access to unbundled local circuit switching in the early stages of entry when it may not have enough customers to achieve economic switch utilization rates.[32] As a general matter, these commenters inappropriately focus this aspect of their impairment analyses on the fully allocated cost to serve a particular wire center with a competitive switch. We made findings above regarding the higher capacity and wider geographic reach capable from competitive switches, we previously have found that competitive LECs can deploy and use packet switches and deploy and use local circuit switches to serve the enterprise market, and we observe below the BOCs' improvements to their hot cut processes. In light of these findings, the proper inquiry thus is whether the incremental costs and obstacles associated with using these switches to serve the mass market give rise to impairment.[33] As discussed in greater detail below, we do not find as a general matter that such incremental costs or obstacles give rise to impairment for a reasonably efficient competitor. Consequently, we find that even such transitional access to unbundled local circuit switching is unnecessary.

2. Hot Cuts

210. On remand, in light of changed circumstances and guidance received from the D.C. Circuit, we find no impairment arising from the hot cut process for the majority of mass market lines. The Commission's prior impairment finding for mass market local circuit switching in the *Triennial Review Order* was based solely on operational and economic impairment arising from the hot cut process.[34] The Commission found that hot cuts gave rise to operational impairments, due to the disruptions in service experienced by end-user customers, and due to concerns about the ability of incumbent LEC hot cut processes to handle the necessary volumes of hot cuts.[35] The Commission further concluded that the need for hot cuts gave rise to economic impairment based on non-recurring costs (NRCs) paid to incumbent LECs to perform a hot cut.[36] We find that the new hot cut processes developed by each of the BOCs significantly address these difficulties. Particularly in light of these new, improved hot cut procedures, we conclude that commenters' concerns largely are speculative and, in light of D.C. Circuit

[31] ACS Comments at 9 (discussing UNE-L competition in Alaska from GCI); BellSouth Comments at 18-19 (discussing UNE-L competition from Knology and FDN Communications); Qwest Comments at 54 (discussing UNE-L competition from McLeod and Cavalier).

[32] *See, e.g.*, PACE Coalition *et al*. Comments at 72-75; Dialog Comments at 11-12; Ionary *et al*. Comments at 8.

[33] *See, e.g.*, Verizon Reply, Attach. I, Reply Declaration of Jeffrey H. Rohlfs and Joseph H. Weber (Verizon Rohlfs/Weber Reply Decl.), Exh. 1 at 8 (critiquing MCI's switching impairment model for considering full allocated costs on a wire center basis in evaluating whether it is economic to deploy a switch to serve the mass market, rather than considering only incremental costs, and noting, for example, the lower per-customer switching and transport costs when those costs are shared among enterprise and mass market customers); SBC Reply at 71-72 (same); BellSouth Reply at 12 (criticizing competitive LECs' switching impairment proposals for focusing on wire centers, rather than broader geographic areas); BellSouth Reply, Attach. 8, Reply Affidavit of Pamela A. Tipton (BellSouth Tipton Reply Aff.) at 4-5 (asserting that already-deployed competitive switches are sufficient to meet the demand associated with serving existing UNE-P customers); GCI Comments at 8 (noting that "the increment costs of adding traffic to [GCI's] own switches and transport facilities is negligible").

[34] *Triennial Review Order*, 18 FCC Rcd at 17277, para. 476.

[35] *Id*. at 17265-72, paras. 466-69.

[36] *Id*. at 17272-74, paras. 470-71.

precedent, do not support a finding of impairment for mass market local circuit switching. Moreover, regardless of any limited potential impairment from hot cuts or other sources, we find that the continued availability of unbundled mass market switching would impose significant costs in the form of decreased investment incentives, and we therefore determine not to unbundle that network element pursuant to section 251(d)(2)'s "at a minimum" authority.

211. The record indicates that many incumbent LECs are developing further improvements to their hot cut process, through the development of batch hot cut procedures. For example, each of the BOCs has developed a batch hot cut process allowing for a competitive LEC to have multiple customer lines converted to competitive LEC networks within a short time.[37] Qwest's batch hot cut process (BHCP) enables it to process between 25 and 100 hot cuts of stand-alone unbundled analog loops per day in a central office.[38] Qwest's BHCP can provision Integrated Digital Loop Carrier (IDLC) systems in batches of up to 40 per day per state.[39] SBC's "Enhanced Daily Process" places no limitations on the number of local service requests that a competitive LEC may submit.[40] Its "Defined Batch Process" allows competitive LECs to order up to 100 hot cuts per day per central office with a standard provisioning interval under two weeks, resulting in 20-25 hot cuts per hour.[41] A "Bulk Projects" process is available for projects with 100 or more lines. BellSouth has also added features to its batch hot cut process that allow after-hours and weekend hot cuts.[42] BellSouth's hot cut process also allows for cut overs of both DS0 EELs and DS0 loops served via IDLC.[43] Verizon likewise has both "batch" and "large job" hot cut processes, which the New York DPS approved, and found would allow Verizon to "scale up its hot cut activities" even assuming that "Verizon will be required to increase its hot cut activity dramatically."[44] In light of these new procedures, we cannot conclude that the hot cut processes will be

[37] Letter from Glenn T. Reynolds, Vice President – Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Attach. at 6-14 (filed Aug. 5, 2004); *see also* Qwest Comments at 49; SBC Comments at 58; Verizon Comments at 113-14. Moreover, we note that while non-BOC incumbent LECs are subject to section 251(c)(3) unbundling, section 251(f) exempts many such carriers from section 251(c)(3)'s requirements. Indeed, the BOCs and carriers exempted from unbundling obligations by section 251(f) have approximately 97.5% of all incumbent LEC access lines. *Triennial Review Order*, 18 FCC Rcd at 17388, para 660. Thus, we anticipate that the great majority of migrations occurring pursuant to the transition plan set forth below will involve carriers whose hot cut processes we expressly approved in section 271 proceedings, and which have implemented batch cut processes that help limit any operational and economic difficulties associated with individualized hot cuts.

[38] Qwest Comments at 49.

[39] *Id*.

[40] SBC Comments at 58.

[41] *Id*.

[42] Bellsouth Comments at 32.

[43] *Id*. at 31.

[44] Order Setting Permanent Hot Cut Rates, *Proceeding on Motion of the Commission to Examine the Process and Related Costs of Performing Loop Migrations on a More Streamlined (e.g., Bulk) Basis*, Case 02-C-1425 at 59, 62 (N.Y. DPS Aug. 25, 2004) (*New York Hot Cut Order*), *cited in* Verizon Comments at 113. We note, in contrast, that Verizon's ability to perform the necessary volumes of hot cuts in New York was a particular concern in the *Triennial Review Order*. 18 FCC Rcd at 17272, para. 469. Some states only initiated batch hot cut proceedings in response to the *Triennial Review Order*, and have not completed those proceedings. We emphasize, however, that regardless of the status of the state proceedings, each of the BOCs has adopted batch hot cut processes throughout its territory and has based its advocacy with regard to unbundled mass market local switching on the continued availability of these processes.

insufficiently scalable to handle those lines that are transitioned from UNE-P to UNE-L arrangements. Rather, any inadequacies in carriers' hot cut performance can be addressed through enforcement of interconnection agreements and, in the case of BOCs, complaints pursuant to section 271(d)(6).[45]

212. We find that these batch hot cut processes also help address concerns about service disruptions. In particular, some of these new batch hot cut processes offer competing carriers the ability to schedule hot cuts outside of normal business hours.[46] This increased flexibility provides the potential to reduce the risk that any delays or disruptions will come during a time of day when they are likely to be observed by mass market customers.

213. Further, the record reveals that these batch hot cut processes have lower NRCs. For example, the New York DPS has approved Verizon's new batch hot cut processes, adopting hot cut NRCs far below the $185 per line cited in the *Triennial Review Order*.[47] Region-wide, BellSouth offers a batch hot cut process at a ten percent discount off of the applicable state-established hot cut NRC to account for the efficiencies gained by using a batch process.[48] Qwest has also instituted a batch hot cut process that is available at prices below the TELRIC rates set by state commissions for individual hot cuts.[49] SBC has implemented a variety of enhancements to its hot cut processes that will result in lower hot cut NRCs.[50] Thus, on the basis of this record, we find that the costs to have hot cuts performed have decreased in many regions since the *Triennial Review Order* was adopted.[51]

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[45] 47 U.S.C. § 271(d)(6).

[46] For example, Qwest designed its batch hot cut process to "perform [the physical cut over of the loops] in the[] early morning hours," as early as 3 a.m., to ensure "little or no disruption to the end users [sic] service and [to permit technicians to work] on frames in an efficient manner with little to no traffic on them." Qwest Comments, Attach. 1 at 35. BellSouth is in the process of adding new hot cut features including after hours and weekend hot cuts. *See* BellSouth Comments at 31-32. SBC also offers extended business hours during which hot cuts can be performed. *See* Kansas Commission Comments at 17. As part of Verizon's "project" process for large volumes of hot cuts, loops included in the project are typically cut over after normal business hours." *New York Hot Cut Order* at 16.

[47] Specifically, the New York Department set rates as follows: for a basic 2-wire line, $42.36 for the initial line and $29.42 for each additional line; for a basic 4-wire line, $69.60 for the initial line and $45.09 for each additional line; for each line in a "large job" hot cut, $33.84 for the initial line and $27.92 for each additional line; and for each line in a "batch" hot cut, $28.17 for the initial line and $23.72 for each additional line. *New York Hot Cut Order*.

[48] BellSouth Reply at 24; *see also* BellSouth Comments at 34.

[49] Qwest Comments at 50. In most Qwest states, per-line batch hot cut rates are 11.5% to 16.8% less than the individual hot cut rates. Qwest Reply at 85.

[50] SBC Comments at 58-59.

[51] Supra indicates that currently, in Florida, at a hot cut rate of $59.31, the break-even point for POTS customers is reached approximately after the seventh month of service. Supra Comments at 18. In the *Triennial Review Order*, the Commission cited evidence that competitive LECs expects to keep any particular customer for up to 18-24 months. *Triennial Review Order*, 18 FCC Rcd at 17274, para. 471 (citing evidence from Z-Tel). In the current record, MCI asserts that the average customer is retained for 10 to 20 months, although Verizon contends that this is significantly understated. *See* MCI Comments, Declaration of Michael Pelcovits (MCI Pelcovits Decl.), Exh. 2 ; Verizon Rohlfs/Weber Reply Decl., Exh. 1 at 6. While these data do not, standing alone, prove that competitive LECs never face economic hot cut impairment due to non-recurring charges, the data do demonstrate that it would be inappropriate to reach a nationwide finding of impairment on the basis of hot cut NRCs.

214. While some commenters propose modifications to further improve these processes, we nonetheless conclude that these new hot cut procedures, as described by the BOCs, constitute significant steps that sufficiently respond to our concerns about the potential for scalability of hot cuts.[52] Similarly, we note that several BOCs have undergone third-party testing of their new batch hot cut processes,[53] and, as stated above, Verizon's process was approved by the New York DPS.[54] In addition, concerns about hot cut processes that are only newly developed are fundamentally speculative in nature.[55] Moreover, as the D.C. Circuit observed in *USTA II*, the Commission has evaluated the BOCs' hot cut performance for purposes of evaluating their applications to provide in-region long distance service subject to section 271, and ultimately found that performance to be sufficient to demonstrate checklist compliance for each BOC in each relevant state. These evaluations specifically addressed, and confirmed, each BOC's ability to adapt its practices and capabilities to meet changes in demand.[56] Commenters also have not affirmatively demonstrated that hot cut performance in other states is somehow inadequate.[57] We thus reject

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[52] *See, e.g.*, MCI Comments at 57-59; McLeod Comments at 31-35; AT&T Comments at 169-175; *but see* SBC Reply at 84 (citing statements by Z-Tel that "it 'feels comfortable' with a UNE-L strategy because of the 'progress being made on hot cut economics and performance over the past year'").

[53] Qwest Comments at 53 (citing Hitachi Consulting's testing of its batch hot cut processes); BellSouth Comments at 33 (citing PriceWaterhouseCoopers' testing of its batch hot cut processes).

[54] Verizon Comments at 113 (citing *New York Hot Cut Order*); *see also supra* para. 211.

[55] SBC Reply at 81-83; MCI Comments at 71-74 (speculating about potential problems with directory listings and number porting); WorldNet Comments at 15-16 (speculating about possible hot cut shortcomings based on the incumbent's lack of past hot cut experience); Puerto Rico Telecommunications Regulatory Board Reply at 4 (same). While the Commission may evaluate impairment by making reasonable inferences from the facts in the record, it may not impose unbundling on the basis of purely speculative concerns. *See, e.g.*, *Iowa Utilities Board*, 525 U.S. at 391-92 ("Section 251(d)(2) does not authorize the Commission to make isolated exemptions from some underlying duty to make all network elements available. It requires the Commission to determine on a rational basis *which* network elements must be made available, taking into account the objectives of the Act and giving some substance to the 'necessary' and 'impair' requirements."); *see also*, *e.g.*, *USTA II*, 359 F.3d at 570; *USTA I*, 290 F.3d at 425-26.

[56] *See Federal Communications Commission Authorizes Qwest to Provide Long Distance Service in Arizona; Bell Operating Companies Long Distance Application Process Concludes; Entire Country Authorized for "All Distance" Service*, News Release (Dec. 3, 2003). We thus reject impairment claims, such as those raised by MCI, that are little more than a "rehashing of complaints the CLECs made during the state and federal 271 filings." BellSouth Reply, Attach. 6 at 11-12 (observing that the loop make-up information concern raised by MCI was cited and rejected in each of BellSouth's section 271 proceedings); *see also* SBC Reply at 83-84 ("[T]he Commission's 49 separate 271 findings that existing processes were sufficient to provide CLECs a meaningful opportunity to compete (and were scalable to meet increased demand) plainly rebut MCI's arguments about 'garden-variety' hot cuts.") (footnote omitted). As we stated repeatedly in the context of those proceedings, the appropriate mechanism for addressing such concerns are state commission enforcement processes or section 208 complaints to this Commission. *See, e.g.*, *Application by Qwest Communications International Inc. for Authorization to Provide In-Region, InterLATA Services in Arizona*, WC Docket No. 03-194, Memorandum Opinion and Order, 18 FCC Rcd. 25504, 25535, para. 57 (2003).

[57] As we note above, we anticipate that the great majority of migrations occurring pursuant to the transition plan set forth below will involve carriers whose hot cut processes we expressly approved in section 271 proceedings, and which have implemented batch cut processes that help limit any operational and economic difficulties associated with individualized hot cuts. *See supra* note Error: Reference source not found. Although we recognize that only the BOCs were required under section 271 to submit hot cut performance results, commenters also have not affirmatively demonstrated that hot cuts by other, non-BOC, incumbent LECs, are somehow inadequate. *See, e.g.*, WorldNet Comments at 15-16, 19 (expressing concern about Puerto Rico Telephone

unbundling of switching based on commenters' speculative concerns about the adequacy of hot cut processes.

215. Our reliance on our findings of sufficient hot cut performance in the section 271 process coupled with our reliance on recent improvements to these processes to ensure their scalability are buttressed by the fact that, as a practical matter, we no longer expect that requesting carriers will seek cut overs at the levels we anticipated in the *Triennial Review Order*.[58] For example, the record indicates that many competitors are choosing to rely on intermodal alternatives to the loop, obviating the need for hot cuts.[59] Alternatively, some mass market competitors are providing voice service using IP technologies that rely on existing broadband facilities, including some existing carriers such as AT&T, which have had a significant share of competitively-served mass market customers.[60] Similarly, Vonage, a new entrant, already serves more than 200,000 consumers and small businesses with its VoIP service.[61] Moreover, several carriers have entered into commercial agreements with incumbent LECs establishing arrangements similar to the UNE-P, again limiting the need for hot cuts, and we expect more carriers will

Company's potential hot cut performance, despite the fact that they have not yet requested any hot cuts).

[58] *See, e.g.*, Verizon Comments at 111-12; SBC Reply at 66.

[59] *Id*. In the *Triennial Review Order*, the Commission undertook an analysis of the state of intermodal competition as part of the local circuit switching impairment inquiry. *Triennial Review Order*, 18 FCC Rcd at 17251-53, paras. 443-46. While we need not conduct a full analysis of mass market intermodal competition at this time, because we independently find that requesting carriers are not impaired without access to unbundled mass market switching, and that a consideration of investment incentives also supports our decision not to unbundle that element, we nonetheless observe the growing potential sources of intermodal competition for the limited purpose discussed here. *See Triennial Review Order*, 18 FCC Rcd at 17295, para. 499 n.1549 (noting the possibility that, in particular markets, intermodal alternatives might be available that are comparable in cost, quality and maturity to incumbent LEC services).

[60] AT&T Comments at i; BOC UNE Fact Report 2004 at II-9.

[61] *Vonage Activates 200,000th Line*, Press Release (July 13, 2004) *available at http://www.vonage.com/corporate/press_index.php?PR=2004_07_13_0* ("Vonage, the leading broadband telephony provider, today announced the activation of 200,000 total lines on its network, doubling its subscriber-base in less than six months since reaching the 100,000 line mark."); *see also* Covad Comments at 34 (stating that Vonage serves more than 100,000 consumers and small businesses); *Vonage Becomes First Broadband Telephony Provider To Activate 100,000 Lines*, Press Release (Feb. 2, 2004) *available at http://www.vonage.com/corporate/press_index.php?PR=2004_02_02_0* ("Vonage Continues to Lead the Broadband Telephony Industry as it Reaches the Milestone of 100,000 Consumer and Small Business Lines in Service").

enter into such agreements.[62] Accordingly, the current record indicates that hot cuts and the barriers associated with hot cuts are of diminishing significance to competition in the mass market.

216. We also note that concerns about incumbent LECs' ability to convert the embedded base of UNE-P customers in a timely manner are rendered moot by the transition period we adopt in this Order.[63] Specifically, under the transition we adopt, and as described in further detail below, competitive LECs must submit orders within twelve months to convert their embedded UNE-P customer base to UNE-L or another arrangement. However, within that twelve-month period, incumbent LECs must continue providing access to mass market unbundled local circuit switching at a rate of TELRIC plus one dollar for the competitive LEC to serve those customers until the incumbent LECs successfully convert those customers to the new arrangements.

217. We also disagree with MCI's suggestion that other operational barriers associated with specific hot cut scenarios, such as those involving conversions from UNE-P to EELs or UNE-P to UNE-L line splitting, preclude competition in the absence of unbundled mass market switching.[64] First, although MCI suggests that hot cuts involving EELs are unavailable, the record belies that assertion. Specifically, the evidence before us indicates that MCI has not yet requested such hot cuts from incumbent LECs, and, moreover, that incumbent LECs are willing to provide such hot cuts.[65] Second, regarding the UNE-P to UNE-L line splitting scenario, MCI expresses concerns about the processes used by a limited number of incumbent LECs, primarily SBC. However, the Commission has chosen to encourage parties to use state collaboratives to work out the processes necessary to support line splitting,

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[62] *See, e.g.*, MCI, *MCI and Qwest Reach Commercial Agreement for Wholesale Services*, Press Release (May 31, 2004), *available at http://global.mci.com/news/news2.xml?newsid=10710&mode=long&lang=en&width=530&langlinks=off*; SBC, *SBC, Sage Telecom Reach Wholesale Telecom Services Agreement*, Press Release (Apr. 3, 2004), *available at http://www.sbc.com/gen/press-room?pid=5097&cdvn=news&newsarticleid=21080*; *BellSouth in Deals with Four Carriers; CLEC Group Cries Foul on Deadline*, TR DAILY (May 5, 2004) (describing BellSouth's commercial agreements with ABC Telecom, INET, KingTel, and WebShoppe); BellSouth, *BellSouth Signs Contracts for Long-Term Commercial Agreements with Three Wholesale Carriers*, Press Release (Apr. 29, 2004), *available at http://bellsouthcorp.com/proactive/newsroom/release.vtml?id=45448* (describing BellSouth's commercial agreements with Dialogica Communications Inc., International Telnet, and CI2); Verizon, *Verizon and Granite Telecommunications Sign Binding Letter of Intent for Commercial Agreement on Wholesale Services*, Press Release (June 15, 2004), *available at http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=85517*; Verizon, *Verizon Entering Into Commercial Agreement With A Wholesale Customer*, Press Release (June 18, 2004), *available at http://newscenter.verizon.com/proactive/newsroom/release.vtml?id=85593* (describing Verizon's commercial agreement with Sterling Telecommunications); *Verizon Reaches Tentative Pact with CLEC for Network Access*, TR DAILY (Apr. 23, 2004) (describing Verizon's commercial agreement with DSCI); *Wireline*, COMMUNICATIONS DAILY (May 19, 2004) (describing Verizon's commercial agreement with InfoHighway).

[63] *See infra* paras. 226-28.

[64] *See, e.g.*, MCI Comments at 60-61. We note that some commenters also raise concerns about access to IDLC loops. *See, e.g.*, *id*. at 59; GCI Comments at 8, 13-15. Fundamentally, however, these commenters' arguments do not relate to impairment with respect to local circuit switching, but rather, seek to justify access to UNE-P as a remedy for impairment with respect to the IDLC loops themselves. GCI Comments at 21. A review of the unbundling requirements associated with mass market loops generally, or IDLC loops in particular, is beyond the scope of issues we address in the present Order, and thus access to IDLC loops continues to be governed by the rules adopted in the *Triennial Review Order*, and upheld in *USTA II*. *Triennial Review Order*, 18 FCC Rcd at 17154, para. 297; *USTA II*, 359 F.3d at 582-83.

[65] *See, e.g.*, Verizon Reply, Attach. G, Reply Declaration of Thomas Maguire (Verizon Maguire Reply Decl.) at paras. 13-16; BellSouth Comments at 32.

which we believe is a better approach to addressing such concerns than requiring unbundled access to mass market switching.[66]

218. In addition to these concerns, which go directly to the Commission's consideration of operational factors of impairment, the Commission also finds that even if some limited impairment might exist in some markets, we would decline to require unbundling of mass market local circuit switching pursuant to our "at a minimum" authority, based on the investment disincentives that unbundled local circuit switching, and particularly UNE-P, creates.[67] Five years ago, the Commission expressed a preference for facilities-based competition.[68] This preference has been validated by the D.C. Circuit as the correct reading of the statute.[69] Since its inception, UNE-P was designed as a tool to enable a transition to facilities-based competition. It is now clear, as discussed below, that, in many areas, UNE-P has been a disincentive to competitive LECs' infrastructure investment. Accordingly, consistent with the D.C. Circuit's directive, we bar unbundling to the extent there is any impairment where – as here – unbundling would seriously undermine infrastructure investment and hinder the development of genuine, facilities-based competition.

219. As we found above, it is possible for switches to be deployed by competitors on an economic basis. It thus would be contrary to the direction of judicial precedent to unbundle mass market switching, allowing competitors to provide service exclusively using the incumbent LECs' facilities,[70] and discouraging competitive LECs' use and further deployment of competitive switching facilities. Under the D.C. Circuit's mandate, consideration of economic incentives, pursuant to section 251(d)(2)'s "at a minimum" language, is appropriate in the context of unbundling analyses because such consideration accords weight to the Act's aim of encouraging facilities-based competition.[71] The Supreme Court likewise has recognized that section 251(c)(3) is designed to allow competitive LECs unbundled access to certain incumbent LEC facilities to be used in conjunction with facilities that they can deploy themselves or obtain competitively.[72]

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[66] Such collaborative processes are ongoing in SBC's region. *See, e.g., Application By SBC Communications Inc., Michigan Bell Telephone Company, and Southwestern Bell Communications Services, Inc. for Authorization to Provide In-Region, InterLATA Services in Michigan*, WC Docket No. 03-138, Memorandum Opinion and Order, 18 FCC Rcd 19024, 19102-04, paras. 137-40 (2003).

[67] Because we exercise our "at a minimum" authority and eliminate unbundled access to mass market local circuit switching, and therefore UNE-P, we need not separately address the D.C. Circuit's concern about the interaction between such unbundling and any cross-subsidies in state retail rates. *See USTA II*, 359 F.3d at 573.

[68] *See UNE Remand Order*, 15 FCC Rcd at 3701, para. 7.

[69] *USTA II*, 359 F.3d at 563 (stating that the Commission's unbundling analysis must "pursue the 'balance' between the advantages of unbundling (in terms of fostering competition by different firms, even if they use the very same facilities) and its costs (in terms both of 'spreading the disincentive to invest in innovation and creating complex issues of managing shared facilities'") (quoting *USTA I*, 290 F.3d at 427); *id.* at 572 (stating that *USTA I* "rul[ed]. . . that [the Commission's] impairment rule take into account not only the benefits but also the costs of unbundling (such as discouragement of investment in innovation), in order to be 'rationally related to the goals of the Act'") (citing *USTA I*, 290 F.3d at 428); *USTA I*, 290 F.3d at 425 (noting that "a disincentive effect" from unbundling "cannot be discounted a priori").

[70] The situation regarding local circuit switching, which is acquired as part of a UNE-P arrangement, is thus distinguishable from those UNEs which are used in conjunction with the competitor's own facilities.

[71] *See USTA II*, 359 F.3d at 563.

[72] *Verizon Communications v. FCC*, 535 U.S. 467, 492 (2002); *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 389-92 (1999).

220. The record demonstrates the validity of concerns that unbundled mass market switching discourages competitive LEC investment in, and reliance on, competitive switches.[73] Qwest shows that during the same time that competitive LEC use of UNE-P increased dramatically, investment by facilities-based competitive LECs declined by 56 percent.[74] Competitive LECs have not rebutted the evidence of commenters showing that competitive LECs in many markets have recognized that facilities-based carriers could not compete with TELRIC-based UNE-P, and therefore have made UNE-P their long-term business strategy.[75] Indeed, some proponents of UNE-P effectively concede that it discourages infrastructure investment, at least in some cases.[76] Some competitive LECs have openly admitted that they have no interest in deploying facilities.[77] Particularly in residential markets, facilities-based competitive LECs have been unable to compete against other competitors using incumbent LECs' facilities at TELRIC-based rates, and are thus discouraged from innovating and investing in new facilities.[78] The disincentive effects of unbundled local circuit switching are not limited to the

[73] Qwest Comments at 60; SBC Comments at 55-56; Ad Hoc Telecommunications Manufacturing Coalition Comments at 9; USTA Comments at 13. We note that in this context – where the incumbent LECs already operate ubiquitous legacy circuit switching networks – our inquiry into unbundling's impact on investment incentives focuses primarily on the *competitive LECs*' incentives to deploy alternative switching facilities. In fact, given that we do not require packet switches to be unbundled, there is no basis for an argument that our treatment of circuit switches gives incumbent LECs a disincentive to upgrade their switches.

[74] *See id*.

[75] *See, e.g.*, USTA Comments at 13; *see also* SBC Comments at 55 ("AT&T's and WorldCom's platform-dependent mass-market strategy in New York – which resulted in over a million residential customers – had, at the time of the *Triennial Review* proceeding, yet to produce a single customer converted to these carriers' own facilities"); *see also* Letter from Jerry Ellig, Senior Research Fellow, Mercatus Center at George Mason University, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, WC Docket No. 04-313, Attach. 2 at 31-32 (filed Nov. 18, 2004) (stating that empirical research indicates that the availability of UNE-P serves as a disincentive to facilities-based competition); PACE Reply, Exh. 3 at 2-3 (Balhoff Testimony) (reproducing Congressional testimony in which Michael Balhoff, of Legg Mason, concluded that deployment of competitive facilities to serve the residential market has been limited by the disadvantages facilities-based competitors face in competing against competitors relying solely on UNEs); Florida PSC Dec. 1, 2004 *Ex Parte* Comments, Attach. at 5 n.3 ("While facilities-based CLECs have made much greater headway into the business market (at 76% of all CLEC business lines), existing policies have led to suppressed investment in the residential market and have favored UNE-P providers.").

[76] *See, e.g.*, Utah Committee of Consumer Services Reply at 28-29.

[77] *See, e.g.*, Letter from Albert H. Kramer, Counsel for Birch, to Magalie Roman Salas, Secretary, FCC, CC Docket No. 96-98, Attach. at 1 (filed Jan. 17, 2001) ("[I]t is not economical to self-provision switching for customers served by individual analog lines, even where a switch has already been deployed and the cost of that switch is regarded as a sunk cost.") (emphasis omitted); *id*. at 3, 7 (Birch has "abandon[ed] serving customers using self-provisioned switching, unless those customers have sufficient needs to justify a DS1 facility," and will not even serve customers that are 'located a few blocks from one of its switches,' despite the fact that 'Birch has been able to rapidly build a customer base,' which CLECs have argued is the prerequisite for converting customers to their own facilities"), *cited in* SBC Comments at 56.

[78] *See* SBC Comments at 56 (citing 3A Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law para. 771b, at 174 (2d ed. 2002) ("the right to share a monopoly discourages firms from developing their own alternative inputs"); *id*. para. 773c, at 209 (unbundling will reduce an entrant's incentives to enter the market by other means); *id*. para. 771b, at 175 (when the government forces a company to "provide [a] facility and regulat[es] the price to competitive levels, then the [prospective entrant's] incentive to build an alternative facility is destroyed altogether"); *see also id*. at 56-57 ("facilities-based CLECs have previously urged the Commission to 'set real limits on the availability of UNEs from ILECs'") (citing Comments of Cox Communications, Inc. at ii, 3, CC Docket Nos. 96-98, 95-185 (filed May 26, 1999); Comments of Focal Communications at 5, CC Docket Nos. 96-

deployment of competitive switches, however. For example, even when some competitive LECs acquired a significant number of customers in densely populated areas they never converted to reliance on their own facilities.[79] Thus, unbundled local circuit switching also creates disincentives for competitive LECs to use those competitive switches that have been deployed. In addition, Verizon cites evidence that the availability of UNE-P also has hindered the ability of competitors to use intermodal facilities to compete for local telephone customers.[80] In light of this evidence, and the limited number of cases in which requesting carriers may be impaired without access to unbundled switching, we conclude that the costs associated with unbundling outweigh any benefits with respect to mass market local circuit switching.[81]

98, 95-185 (filed May 26, 1999); Comments of Rhythms NetConnections Inc. at 27-28, CC Docket Nos. 96-98, 95-185 (filed May 26, 1999)); Commissioner Kennedy Oct. 18, 2004 *Ex Parte* Letter at 6.

[79] *See, e.g.*, Verizon Comments in CC Docket Nos. 01-338, 96-98, 98-147 at 37 (filed Apr. 5, 2002) ("The two largest purchasers of UNEs, WorldCom and AT&T, certainly do not use UNEs as a transition to their own facilities, as indicated by their continuing use of the UNE-P to serve over a million mass market customers in New York alone rather than migrating those customers to their own switches (of which they have plenty)."); SBC Comments in CC Docket Nos. 01-338, 96-98, 98-147 at 7 (filed Apr. 5, 2002) ("In New York, for example, where AT&T and WorldCom have 28 circuit switches, neither carrier appears to have migrated a single one of their 1 million residential customers.").

[80] Verizon Comments at 108-09 (citing assessments of industry analysts and cable operators of the effects of UNE-P on the ability of cable operators to compete using intermodal facilities); *see also* Balhoff Testimony at 2-3 ("[T]here were some competitors that tried to invest [in competitive facilities to serve the mass market], but some have admitted that they were disadvantaged by a system in which TELRIC competitors had a more attractive short-term business proposition with virtually no capital costs and lesser competitive risk."). Thus, despite the assertions of some commenters, it is not necessary for the Commission to find that unbundled switching rates are lower than competitive LECs' average cost to use competitive switches in order to find that the availability of UNE-P creates disincentives for competitive facilities investment. *See, e.g.*, PACE *et al*. Reply at 8-13. The lower capital costs and lesser competitive risk associated with a UNE-P mass market strategy, as compared to a facilities-based strategy, indicate that the availability of UNE-P could deter competitive LEC investment even if the unbundled switching rate were equal to, or even somewhat higher than, the competitive LECs' average cost to deploy competitive switches. Regardless, the commenters' analysis of switching improperly compares TELRIC rates with ARMIS cost data. We have concluded in the past that ARMIS embedded cost data are unsuitable for comparison with forward-looking TELRIC rates. *See, e.g.*, *Application by SBC Communications Inc., Pacific Bell Telephone Company, and Southwestern Bell Communications Services Inc., for Authorization to Provide In-Region, InterLATA Services in California*, WC Docket No. 02-306, Memorandum Opinion and Order, 17 FCC Rcd 25650, 25678, para. 59 n.166 (2002) (rejecting comparisons between ARMIS embedded cost data and forward-looking TELRIC rates); PACE *et al*. Reply at 9-10 (acknowledging that TELRIC rates are based on new technology and citing BellSouth testimony that TELRIC switching rates reflect some distortions associated with the "use of a hypothetical network and most efficient, least-cost provider requirement").

[81] In the *Triennial Review Order*, the Commission addressed a narrower issue, and concluded, on that record, that unbundling of mass market local circuit switching did not undermine the advanced telecommunications deployment goals of section 706 of the Act. *Triennial Review Order*, 18 FCC Rcd at 17257, para. 450. Here, we address the broader question of whether unbundling of mass market local circuit switching creates disincentives for competitive LECs to pursue facilities-based competition by relying on, and investing in, any type of competitive switch, whether or not it is used to offer advanced telecommunications services. Both the D.C. Circuit and this Commission have recognized that, as a general matter, both investment in facilities and facilities-based competition are "goals of the Act" to which any unbundling rules must be "rationally related." *USTA I*, 290 F.3d at 429; *UNE Remand Order*, 15 FCC Rcd at 3757-60, paras. 134-39. Consequently, we find inapposite the claims of commenters that unbundled local circuit switching does not discourage the deployment of advanced services. *See, e.g.*, PACE *et al*. Reply at 39-40; Utah Committee of Consumer Services Reply at 28.

221. In reaching the decision not to unbundle mass market switching, we follow the D.C. Circuit's admonition to promote deployment of competitors' facilities and to reserve access to UNEs for situations where competitors are providing a real alternative to parts of the incumbent's network.[82] Considering the disincentives for competitive LECs to rely on competitive switches, we decline to unbundle switching on a nationwide basis pursuant to our "at a minimum" authority, regardless of the assertions of some commenters that requesting carriers may face some limited impairment in particular subsets of the mass market without access to unbundled local circuit switching.

3. Other Possible Sources of Impairment

222. We decline to unbundle mass market local circuit switching on the basis of asserted barriers to entry other than those that the Commission relied upon in the *Triennial Review Order*. As discussed above, we conclude that neither economic nor operational impediments associated with switch deployment or hot cuts pose barriers to entry sufficient to give rise to impairment on a nationwide basis. A number of commenters allege that competitive LECs are impaired in specific circumstances due to unique characteristics of the particular customer markets or geographic markets they seek to serve or because of the competitive carrier's size.[83] As an initial matter, these commenters' claims are at odds with our impairment standard, which evaluates impairment based on a "reasonably efficient competitor," not based on the individualized circumstances of a particular requesting carrier.[84] Further, our impairment analysis "consider[s] all the revenue opportunities that such a competitor can reasonably expect to gain over the facilities, from providing all possible services that an entrant could reasonably expect to sell."[85] As we found above, competitive switches can be used to serve both mass market and

[82] *USTA II*, 359 F.3d at 563, 572, 581-82, 584; *USTA I*, 290 F.3d at 424-26. We disagree with the contention of American Public Communications Council *et al*. that we should exercise our "at a minimum" authority to preserve UNE-P for competitive LECs serving payphone service providers as a means of furthering competition among payphone providers and widespread deployment of payphones in furtherance of section 276 of the Act. *See, e.g.*, American Public Communications Council *et al*. Comments at 9-13; Letter from Jacob S. Farber, Counsel for American Public Communications Council *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Attach. at 9 (filed Dec. 7, 2004) (American Public Communications Council *et al*. Dec. 7, 2004 *Ex Parte* Letter). We believe that we can best, and most directly, address the payphone industry through our implementation of section 276, which enumerates specific actions for the Commission to take to further the goals it establishes. 47 U.S.C. § 276(b); *see also supra* para. 23.

[83] *See, e.g.*, Dialog Comments at 2-4 (alleging that competitive LECs are uniquely impaired when seeking to serve rural areas); SouthEast Comments at 3-5 (same); USA Telephone Comments at 3-4 (same); Pennsylvania Consumer Advocate Comments at 13 (same); Dialog Comments at 7-8 (alleging that competitive LECs are uniquely impaired when seeking to serve residential customers); Momentum Comments at 5-14 (same); Ohio Consumers' Council Comments at 12-18 (same); American Public Communications Council *et al*. Comments at 23-26 (alleging that competitive LECs are uniquely impaired when seeking to serve payphone service providers); WorldNet Comments (alleging that competitive LECs are uniquely impaired in Puerto Rico); SBA Comments at 5-7 (alleging that small competitive LECs would be particularly affected by the elimination of UNE-P); National ALEC Association Reply at 6 (same).

[84] *See supra* Part IV.A.

[85] *See supra* para. 24. This highlights a shortcoming in the Puerto Rico Telecommunications Regulatory Board's petition for waiver of the Commission's national finding of no impairment for enterprise switching. *See* Public Notice, *Wireline Competition Bureau Seeks Comment on Waiver Petition Filed by the Telecommunications Regulatory Board of Puerto Rico for Enterprise Market Switching Impairment*, DA 04-7 (Jan. 9, 2004). Specifically, the Board's petition for waiver with respect to enterprise switching failed to include *any* consideration of the revenues a competitor would be likely to earn, which might counterbalance any potential operational impairment experienced by carriers seeking to serve the enterprise market with competitive switches. *See generally* Waiver Petition of the Telecommunications Regulatory Board of Puerto Rico for Enterprise Market

enterprise customers, and can be used to serve wide geographic areas.[86] Based on the current record, commenters have not adequately demonstrated that they cannot serve the particular customer or geographic markets at issue in conjunction with other markets in a manner that would make entry economic.[87] Moreover, the evidence of disincentives for competitive LECs to rely on competitive switches convinces us to exercise our section 251(d)(2) "at a minimum" authority and decline to unbundle local circuit switching.

223. Further, we conclude that transport costs faced by competitive LECs using competitive switches do not give rise to economic impairment.[88] Transport costs arise in arrangements that enable switches deployed by competitive LECs to serve a larger geographic area than switches deployed by the incumbent LEC, permitting competitors to achieve their own unique and competitive efficiencies by deploying a switch and aggregating traffic from dispersed locations to that switch.[89] In addition, competitive LECs may choose particular locations for their switches due to other advantages, such as locating their switches close to other competitors' switches, maximizing the ability to share costs and aggregate traffic, or close to transmission facilities deployed by other competitors, increasing the

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Switching Impairment in Defined Puerto Rico Markets, CC Docket Nos. 01-338, 96-98, 98-147 (filed Dec. 30, 2003). Consequently, we dismiss the Puerto Rico Telecommunications Regulatory Board's petition for waiver for failing to comply with the requirements for such petitions established in the *Triennial Review Order*. *Triennial Review Order*, 18 FCC Rcd at 17263, para. 458 ("However, where competitive LECs have the opportunity to earn revenues that outweigh the costs associated with entry, carries are not impaired without unbundled access to local circuit switching for DS1 enterprise customers."). Moreover, as we noted above, although we do not address our enterprise switching rules here, we believe that our analysis here with respect to mass market local circuit switching would be likely to apply equally to DS1 enterprise switching. *See supra* note Error: Reference source not found.

[86] *See supra* para. 207. While the American Public Communications Council *et al*. claim that adding a UNE-L line serving a payphone service provider produces a negative margin in particular states, and thus would not be economic even using a competitive switch already serving more profitable customers, we note that the American Public Communications Council *et al*. incorrectly compared costs based on state-specific estimates taken from January 2003 BOC filings with average estimated revenues not necessarily related to the actual revenues carriers could earn in those states. *See* American Public Communications Council *et al*. Dec. 7, 2004 *Ex Parte* Letter, Attach. at 4-5; American Public Communications Council *et al*. Reply at 10-15. Further, we note that these commenters themselves concede that it is possible to serve payphone service providers using competitive switches in at least some markets. American Public Communications Council *et al*. Comments at 18. Thus, we conclude that these data do not support a finding of impairment with respect to any particular market.

[87] As one example, commenters claiming impairment in rural areas have not presented economic evidence demonstrating that it is uneconomic to serve all rural areas generally, or particular rural areas specifically, by deploying a switch in a more urban area and using that switch to serve both the urban and rural areas. As another example, commenters claiming impairment with respect to residential customers have not presented evidence demonstrating that it is uneconomic to use a competitive switch to serve both business customers and residential customers. In addition, we question the merits of the commenters' claims in light of the inferences we are able to draw about potential deployment; the increased demand for switches in the absence of unbundling; the innovation of ever-cheaper packet switches; and the improvement in incumbent LEC hot cut processes.

[88] *See, e.g.*, PACE *et al*. Comments at 71-77; Ionary *et al*. Comments at 4-6; *see also Triennial Review Order*, 18 FCC Rcd at 17279-80, paras. 480, 483 (citing transport to a remote switch as a possible source of impairment, but declining to accord dispositive weight to economic studies purporting to demonstrate as much (or to countervailing studies disputing this and other sources of economic impairment)).

[89] BellSouth Comments at 18-19 ("Knology, a CLEC that predominantly serves the residential market, uses long-haul transport facilities throughout the state of Georgia, and can 'economically serve its customers in Georgia without access to unbundled switching from BellSouth, notwithstanding the costs of backhauling'"); *see also* Qwest Comments at 54; Bellsouth Comments at 20; Verizon Comments at 105-06.

possibility of finding an alternative wholesale supply.[90] We conclude that a reasonably efficient carrier will seek to minimize its costs when determining switch location and that these costs therefore do not preclude economic entry. In addition, competitive LECs continue to enjoy unbundled access to DS0 and high-capacity loops, dedicated transport, and EELs, meaning that such competitors should have access, in many circumstances, to incumbent LEC facilities at cost-based rates to provide the necessary transport of traffic to their switches. Where competitive LECs do not have such access, there should be competitive alternatives or the ability to self-deploy facilities.[91] Consequently, while transport of traffic to competitive switches involves some additional costs beyond those incurred when using UNE-P, these costs largely are within the control of new entrants.

224. We also conclude that an absence of sufficient collocation space does not hinder competitive LECs' ability to deploy competitive switches to a degree that gives rise to operational impairment.[92] With respect to packet switches, the Commission found in the *Triennial Review Order* "that any collocation costs and delays incurred by requesting carriers to provide packet switched services do not rise to a level" of demonstrating impairment because such disadvantages "are likely outweighed by [competitive LECs'] advantage in relying solely on newer, more efficient technology."[93] Similarly, we note that a reasonably efficient competitor does not have to be collocated in every incumbent LEC central office in order to serve customers in that wire center, reducing the likelihood that lack of collocation space will truly result in impairment in the absence of unbundled switching.[94] Further, the Commission determined that the BOCs' collocation provisioning was sufficient to demonstrate section 271 checklist compliance for each relevant state.[95] Commenters have not shown that such performance has since become inadequate, nor cited systemic problems in collocation performance by other, non-BOC, incumbent LECs. Furthermore, while the Commission may evaluate impairment by making reasonable inferences from the facts in the record, it may not impose unbundling on the basis of purely speculative concerns.[96] We believe that any specific instances where there could be a lack of collocation space in the incumbent LEC's central office can be dealt with adequately through the Commission's rules governing access to collocation, which is a more direct way of remedying any such problems.[97]

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[90] *Triennial Review Order*, 18 FCC Rcd at 17205, para. 367; *see also supra* para. 138.

[91] *See supra* Parts V, VI.

[92] *See Triennial Review Order*, 18 FCC Rcd at 17278, para. 477 (finding that "absence of sufficient collocation space in the incumbent LEC central office or offices might in some markets render competitive entry impossible and thus result in impairment"); *see also* Supra Comments at 16; PACE *et al*. Comments at 94.

[93] *Triennial Review Order*, 18 FCC Rcd at 17322, para. 539.

[94] As discussed above, competitive LECs are able to use competitive switches to serve customers in larger geographic areas than incumbent LECs, including customers located outside the wire center where the competitive switch is located. *See supra* para 207. Competitive LECs thus are able to avoid collocating in every central office because of their ability to serve customers in distant wire centers.

[95] *See Federal Communications Commission Authorizes Qwest to Provide Long Distance Service in Arizona; Bell Operating Companies Long Distance Application Process Concludes; Entire Country Authorized for "All Distance" Service*, News Release (Dec. 3, 2003).

[96] *Iowa Utilities Board*, 525 U.S. at 391-92 ("Section 251(d)(2) does not authorize the Commission to make isolated exemptions from some underlying duty to make all network elements available. It requires the Commission to determine on a rational basis *which* network elements must be made available, taking into account the objectives of the Act and giving some substance to the 'necessary' and 'impair' requirements."); *see also, e.g.*, *USTA II*, 359 F.3d at 570; *USTA I*, 290 F.3d at 425-26.

225. Finally, we note that there are many costs that all competitors in a market – incumbent LECs and competitive LECs alike – must incur and recover.[98] We again do not reach a national finding of impairment on the basis of such costs. Commenters cite a number of costs associated with using existing circuit switches to serve the mass market that "are simply disparities faced by virtually any new entrant in any sector of the economy, no matter how competitive the sector."[99]

D. Transition Plan

226. Because unbundled local circuit switching will no longer be made available pursuant to section 251(c)(3), we establish a transition plan to migrate the embedded base of unbundled local circuit switching used to serve mass market customers to an alternative service arrangement.[100] In particular, eliminating unbundled access to incumbent LEC switching on a flash cut basis could substantially disrupt service to millions of mass market customers, as well as the business plans of competitors.[101]

227. We require competitive LECs to submit the necessary orders to convert their mass market customers to an alternative service arrangement within twelve months of the effective date of this Order. This transition period shall apply only to the embedded customer base, and does not permit competitive LECs to add new UNE-P arrangements using unbundled access to local circuit switching pursuant to section 251(c)(3) except as otherwise specified in this Order.[102] The transition we adopt is based on the

[97] *See, e.g.*, 47 C.F.R. § 51.323(k)(3) (requiring incumbent LECs to make available adjacent space collocation where physical collocation space is exhausted).

[98] *See, e.g.*, Qwest Reply at 76 n.216.

[99] *USTA I*, 290 F.3d at 426. Moreover, the competitive carrier cost-based arguments fail to take into consideration that "average unit costs are necessarily higher at the outset for any new entrant into virtually any business." *USTA I*, 290 F.3d at 427. In the *Triennial Review Order*, the Commission found that the record was insufficient to support an impairment finding based on several theoretical sources of potential economic impairment, including costs associated with using existing circuit switches to serve the mass market, such as the purchase of additional analog equipment, costs to acquire additional collocation space, the purchase of additional cabling and power, as well as overhead and marketing costs. *Triennial Review Order*, 18 FCC Rcd at 17251, 17285-86, paras. 441, 485. Commenters in this proceeding cite a number of these sorts of costs. *See, e.g.*, ALTS *et al*. Comments at 93; PACE Coalition, *et al*. Comments at 70, 75; *see also*, *e.g.*, ACN Reply at 2 (citing the current financial climate as hindering its ability to obtain the financing necessary to convert to a UNE-L strategy).

[100] The *Triennial Review Order* left unresolved the issue of the appropriate number of DS0 lines that distinguishes mass market customers from enterprise market customers for unbundled local circuit switching. *See Triennial Review* Order, 18 FCC Rcd at 17293, para. 497. We need not resolve that issue here because, in this Order, we eliminate unbundled access to local circuit switching for the mass market, as well. The transition period we adopt here thus applies to all unbundled local circuit switching arrangements used to serve customers at less than the DS1 capacity level as of the effective date of this Order. The transition for local circuit switching for the DS1 enterprise market was established in the *Triennial Review Order*, 18 FCC Rcd at 17318, para. 532.

[101] *See Interim Order and NPRM*, 19 FCC Rcd at 16794, 16795-96, paras. 20, 24 (discussing need for transition to avoid harmful disruption in the telecommunications markets).

[102] The requesting carrier shall continue to have access to shared transport, signaling, and call-related databases as provided in the *Triennial Review Order* for those arrangements relying on unbundled local circuit switching that have not yet been converted to alternative arrangements. *Triennial Review Order*, 18 FCC Rcd at 17319-20, 17323-34, paras. 533-34, 542-60. We note that TSI's petition for reconsideration of the *Triennial Review Order* that requests that the Commission find signaling elements to be competitively available either through third party providers or through self-provisioning and that competitive LECs do not need mandatory access to signaling was not timely filed. TSI Telecommunications Services, Inc. Petition for Reconsideration, CC Docket No. 01-338 (filed Oct. 3, 2003). In any event, even if we were to consider TSI's petition, because we otherwise generally

incumbent LECs' asserted ability to convert the embedded base of UNE-P customers to UNE-L on a timely basis while continuing to meet hot cut demand for new UNE-L customers. We believe it is appropriate to adopt a longer, twelve-month, transition period than was proposed in the *Interim Order and NPRM*.[103] We believe that the twelve-month period provides adequate time for both competitive LECs and incumbent LECs to perform the tasks necessary to an orderly transition, which could include deploying competitive infrastructure, negotiating alternative access arrangements, and performing loop cut overs or other conversions.[104] Consequently, carriers have twelve months from the effective date of this Order to modify their interconnection agreements, including completing any change of law processes. By the end of the twelve month period, requesting carriers must transition the affected mass market local circuit switching UNEs to alternative facilities or arrangements.

228. We do, however, adopt the *Interim Order and NPRM*'s proposal that unbundled access to local circuit switching during the transition period be priced at the higher of (1) the rate at which the requesting carrier leased UNE-P on June 15, 2004 plus one dollar, or (2) the rate the state public utility commission establishes, if any, between June 16, 2004, and the effective date of this Order, for UNE-P plus one dollar.[105] We believe that the moderate price increases help ensure an orderly transition by mitigating the rate shock that could be suffered by competitive LECs if TELRIC pricing were immediately eliminated for these network elements, while at the same time, these price increases, and the limited duration of the transition, provide some protection of the interests of incumbent LECs in those situations where unbundling is not required.[106] We expect incumbent LECs to meet hot cut demand, and to work to prevent unnecessary customer disruption. To the extent that specific problems arise, carriers are free to petition for waiver of this requirement with respect to their particular circumstances.[107] Of course, the transition mechanism adopted here is simply a default process, and pursuant to section 252(a)

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eliminate unbundled switching, and with it unbundled access to signaling, we dismiss that petition as moot.

[103] *See Interim Order and NPRM*, 19 FCC Rcd at 16799, para. 29 (proposing a six-month period).

[104] *See, e.g.*, Letter from James Bradford Ramsay, General Counsel, NARUC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 3 (filed Dec. 8, 2004) (stating that the transition plan must provide time for competitive LECs "to revise their business plans and decide to deploy any needed infrastructure, generate needed capital for economically sound deployments, negotiate alternative arrangements, or withdraw from particular markets"); Letter from Ruth Milkman, Counsel for MCI, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 1-2 (filed Dec. 7, 2004) (asserting that any transition for mass market local circuit switching needs to accommodate the possibility that some competitive LECs will need to partner with other competitive LECs that already "have in place the equipment and facilities necessary to serve customers via
UNE-L"); New York Department of Public Service Comments at 12-13 (proposing that the transition proposed in the *Interim NPRM* be lengthened by an additional six months due in part to the need for additional time for carriers and consumers to adapt to the new circumstances); *supra* para. 215 (discussing evidence that some competing carriers may seek alternative service arrangements rather than relying on UNE-L); *see also* Michigan-Based CLEC Coalition Comments at 8 (proposing a twelve month transition plan for mass market local circuit switching).

[105] *Interim Order and NPRM*, 19 FCC Rcd at 16797-99, para. 29. To the extent that a state public utility commission order raises some rates and lowers others for the aggregate combination of loops, shared transport, and switching (*i.e.*, UNE-P), the incumbent LEC may adopt either all or none of these UNE platform rate changes. This choice by the incumbent LEC shall not diminish the effectiveness of the state commission order with respect to UNE loop rates (when not ordered as part of the UNE platform). UNE-P arrangements no longer subject to unbundling shall be subject to true-up to the applicable transition rate upon the amendment of the relevant interconnection agreements, including any applicable change of law processes.

[106] *See id.* at 16799, para. 30.

[107] 47 C.F.R. § 1.3.

(1), carriers remain free to negotiate alternative arrangements superseding this transition period. The transition mechanism adopted today also does not replace or supersede any commercial arrangements carriers have reached for the continued provision of UNE-P or for a transition to UNE-L.[108]

VIII. REMAINING ISSUES

A. Conversions

229. We determined in the *Triennial Review Order* that competitive LECs may convert tariffed incumbent LEC services to UNEs and UNE combinations, provided that the competitive LEC seeking to convert such services satisfies any applicable eligibility criteria.[1] The *USTA II* court upheld this determination.[2] The BOCs have nevertheless urged us in this proceeding to prohibit conversions entirely.[3] Given our conclusion above that a carrier's current use of special access does not demonstrate a lack of impairment,[4] we conclude that a bar on conversions would be inappropriate.

230. We decline to adopt an across-the-board prohibition on conversions for three reasons. First, the scope of the purported problem that a conversion bar is designed to remedy is far smaller than several commenters suggest. The BOCs argue that unless the conversion rule is repealed, a tremendous number of existing special access channel terminations will be converted to UNEs by interexchange carriers.[5] But the rules we adopt today already prevent the use of UNEs – and therefore also prevent the conversion of special access circuits to UNEs – where carriers would use them exclusively to provide long distance service or mobile wireless service.[6] It is clear from the record that a significant percentage of the special access channel terminations that the BOCs sell to carriers are provided to interexchange carriers[7] and

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[108] *See, e.g.*, MCI, *MCI and Qwest Reach Commercial Agreement for Wholesale Services*, Press Release (May 31, 2004), *available at http://global.mci.com/news/news2.xml?newsid=10710&mode=long&lang=en&width=530&langlinks=off*; SBC, *SBC, Sage Telecom Reach Wholesale Telecom Services Agreement*, Press Release (Apr. 3, 2004), *available at http://www.sbc.com/gen/press-room?pid=5097&cdvn=news&newsarticleid=21080*.

[1] *Triennial Review Order*, 18 FCC Rcd at 17348-50, paras. 585-89.

[2] *USTA II*, 359 F.3d at 592-93.

[3] *See* BellSouth Comments at 37-38; Qwest Comments at 71-76; SBC Comments at 93-94; Verizon Comments at 75-77.

[4] *See supra* Part IV.D.

[5] *See, e.g.*, Qwest Dec. 8, 2004 Newman/Crain *Ex Parte* Letter at 2 (describing the efforts of one interexchange carrier in Qwest's region to convert special access channel terminations to UNEs); BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter at 5 (arguing that continuing to permit conversions "would create the possibility of a massive wealth transfer between carriers through a shift [from special access circuits] to unbundled facilities").

[6] *See supra* Part IV.B.

[7] The BOCs indicate that 72.9% of all DS1 channel terminations that they sell to wireline carriers are sold to AT&T, MCI, and Sprint. *See* BOC Dec. 13, 2004 *Ex Parte* Letter, Attach. 1, at 7; *see also* BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter, Confidential Appendix 2; Qwest Dec. 8, 2004 Newman/Crain *Ex Parte* Letter, Attach.; Letter from Gary L. Phillips, General Attorney & Assistant General Counsel, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, Attach. (filed Dec. 7, 2004); Verizon Verses/Lataille/Jordan/Reney Decl., Confidential Exh. 10A (all providing comparable data). As for DS3 channel terminations, 65.5% of all circuits sold by the BOCs to wireline carriers are sold to AT&T, MCI, and Sprint. *See* BOC Dec. 13, 2004 *Ex Parte* Letter, Attach. 2, at 4; *see also* BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter, Confidential Appendix 2; Qwest Dec. 8, 2004 Newman/Crain *Ex Parte* Letter, Attach.; Letter from Gary

wireless carriers,[8] and are therefore largely shielded already from potential conversion to UNEs.[9] By contrast, the record is far from clear as to how many of the special access channel terminations that the BOCs sell to carriers *are* susceptible to conversion to high-capacity loops. For example, the BOCs explain that the "channel terminations" category of special access circuits includes both EEL equivalents and loop equivalents, and in some cases entrance facility equivalents as well.[10] Without greater detail about what types of circuits the BOCs are selling to interexchange carriers and competitive LECs, we cannot conclude that additional protections against conversions are necessary.[11]

231. Second, a prohibition on conversions would be inconsistent with our determination today that the availability of tariffed incumbent LEC services does not foreclose access to UNEs. As we have explained, we do not prohibit access to UNEs where tariffed incumbent LEC services are available, due to concerns about the administrability of such a prohibition and the risk of abuse by incumbent LECs, and we have declined to find that current use of special access indicates a carrier's lack of impairment.[12] The BOCs' arguments against conversions are essentially the same as their arguments for finding non-impairment wherever special access facilities are available; neither the BOCs nor any other commenter

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L. Phillips, General Attorney & Assistant General Counsel, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, Attach. (filed Dec. 8, 2004); Verizon Verses/Lataille/Jordan/Reney Decl., Confidential Exh. 10C (all providing comparable data).

[8] The BOCs indicate that between 7.4% and 22% of all DS1 channel terminations that they sell to carriers are sold to wireless carriers. *See* BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter, Confidential Appendix 2; Qwest Dec. 8, 2004 Newman/Crain *Ex Parte* Letter, Attach.; Letter from Gary L. Phillips, General Attorney & Assistant General Counsel, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313 at 1 (filed Dec. 10, 2004) (SBC Dec. 10, 2004 Phillips *Ex Parte* Letter); Verizon Verses/Lataille/Jordan/Reney Decl., Confidential Exh. 10A. For DS3 channel terminations, between 6.9% and 15% of all circuits sold by the BOCs to carriers are sold to wireless carriers. *See* BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter, Confidential Appendix 2; Qwest Dec. 8, 2004 Newman/Crain *Ex Parte* Letter, Attach.; SBC Dec. 10, 2004 Phillips *Ex Parte* Letter at 1; Verizon Verses/Lataille/Jordan/Reney Decl., Confidential Exh. 10C.

[9] Our rules also prevent conversions to UNEs for which we find no impairment, such as entrance facilities. *See supra* paras. 136-41.

[10] BellSouth included entrance facilities in its channel termination figures; Verizon included them in its DS1 figures but was able to exclude entrance facilities from its DS3 figures. *See* BOC Dec. 13, 2004 *Ex Parte* Letter, Attach. 1, at 7.

[11] We also decline to extend our EEL eligibility criteria to stand-alone high-capacity loops, as Verizon and SBC requested. *See* Verizon Comments at 78-79; SBC Comments at 97-98. The *USTA II* court affirmed our eligibility criteria, and we therefore are under no obligation to make any changes to them at this time. *USTA II*, 359 F.3d at 592-93. In the *Triennial Review Order*, we declined to extend the EEL eligibility criteria to stand-alone loops or other network elements, finding that the record did not indicate the same concern about gaming the Commission's rules that EELs presented. *Triennial Review Order*, 18 FCC Rcd at 17351-52, para. 592. We reach the same conclusion here, as the record again does not convince us that high-capacity UNE loops are susceptible to misuse by interexchange carriers seeking to avoid special access charges. *See, e.g.*, Letter from Andrew D. Lipman, Patrick J. Donovan, and Jeffrey R. Strenkowski, Counsel for New Edge Networks, Inc. to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313 at 3 (filed Dec. 7, 2004) (explaining that interexchange carriers typically use EELs or their special access equivalents, while stand-alone loops are typically purchased by competitive LECs). Moreover, interexchange carriers commonly order stand-alone high-capacity loops and attach them to transport that they have ordered through special access. This scenario is already subject to our EELs eligibility criteria. *Triennial Review Order*, 18 FCC Rcd at 17346, para. 583. We reiterate that we will continue to monitor the application of our eligibility criteria and will revisit our decision to limit the criteria to high-capacity EELs "[s]hould there become an apparent need in the future . . . to guard against [improper] access to other parts of the network." *Id.* at 17351-52, para. 592.

[12] *See supra* Part IV.D.

has offered a compelling reason why we should prohibit conversions even after finding that the availability of special access services does not conclusively demonstrate non-impairment.[13] At the same time, competitive LECs do provide evidence that their use of tariffed special access services does not necessarily indicate that they are not impaired without access to UNEs. For example, competitive LECs demonstrate that they often must purchase special access circuits because they encountered difficulties in purchasing the circuits as UNEs.[14] In those cases, the competitive LECs accept special access pricing in order to provide prompt service to their customers, then convert those circuits to UNEs as soon as possible.[15] Competitive LECs also explain that they may purchase special access services as part of a broader contract, which enables them to avoid having to coordinate connectivity through the access service request and local service request processes. But that option is available only because the availability of UNEs gives the competitive LECs leverage to negotiate lower prices for tariffed services.[16] In short, the record does not establish a lack of impairment where competitive LECs are using special access facilities.[17] Under these circumstances, as the *USTA II* court recognized, imposition of a bar on

[13] The BOCs contend that we should prohibit conversions even if we do not make a general finding of non-impairment where tariffed alternatives are available. *See, e.g.*, BellSouth Comments at 38-39 n.140 (arguing that the potential for incumbent LEC abuse is inapplicable where a competitive LEC is currently using special access services). But, as we explain below, this argument unjustifiably assumes that a competitor currently using special access services has voluntarily chosen to forgo UNEs. In fact, the record shows that many competitive LECs regularly purchase special access services only because incumbent LEC policies and practices have restricted their access to UNEs. *See supra* para. 64; *infra* note Error: Reference source not found.

[14] Mpower, for example, asserts that the only reason it buys special access circuits, rather than UNEs, from Verizon is because Verizon adds an "exorbitant" nonrecurring charge of $1,000 to UNE loop orders for mid-span repeater installation. Mpower Dec. 8, 2004 *Ex Parte* Letter at 1. Similarly, XO, Xspedius, and other competitive LECs describe problems with the BOCs denying access to UNEs on the grounds that no facilities are available. XO Dec. 7, 2004 *Ex Parte* Letter at 2; Loop and Transport Coalition Comments at 56; Xspedius Falvey Decl. at paras. 37-38. The Loop and Transport Coalition asserts that competitive LECs are sometimes forced to order special access services because incumbent LECs refuse to combine UNEs or permit commingling of UNEs with tariffed services. Loop and Transport Coalition Comments at 56-59. In response to competitive LECs' allegations about difficulties with the UNE provisioning process, BellSouth notes that the Commission approved its provisioning policies and procedures in the process of granting BellSouth in-region, long distance authority under section 271. BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter at 4. However, as we describe above, the difficulties competitive LECs describe are only one of several reasons why we decline to prohibit conversions. We therefore find that the Commission's grants of section 271 applications do not justify reaching a different conclusion.

[15] *See, e.g.*, XO Dec. 7, 2004 *Ex Parte* Letter at 2 ("XO has purchased . . . Special Access circuits when compelled to do so by the ILECs, and even then intend to convert them to UNEs as early as possible."); Mpower Dec. 8, 2004 *Ex Parte* Letter at 2 (asserting that because Verizon charges "confiscatory" prices for routine network modifications before provisioning DS1 UNE loops, Mpower and other competitive LECs "have no choice but to order the facilities as special access circuits and then convert to UNEs"); *see also* Loop and Transport Coalition Comments at 55-56 (arguing that short-term reliance on special access services by competitive LECs cannot be said to demonstrate "robust competition").

[16] *See, e.g.*, Time Warner Telecom Comments at 15-16. Time Warner Telecom explains that although it does not purchase UNEs, it nonetheless relies on UNE availability as leverage when negotiating with the BOCs. In other words, competitive LECs such as Time Warner Telecom can obtain more favorable rates from BOCs for tariffed services because UNEs are available; these competitive LECs insist that without UNEs, the BOCs will have no incentive to offer tariffed wholesale services at rates that will enable competitive LECs to compete. *Id.*; *see also* Loop and Transport Coalition Comments at 52 (asserting that the availability of UNEs constitutes "the only meaningful source of price competition for special access in most areas").

[17] For the reasons we discuss here, we disagree with the BOCs' assertion that our rule permitting conversions amounts to nothing more than a transfer of wealth from incumbent LECs to competitive LECs. *See, e.g.*, Verizon

conversions would give rise to "anomalies, as CLECs hitherto relying on special access might be barred from access to EELs as unbundled elements, while a similarly situated CLEC that had just entered the market would not be barred."[18]

232. Finally, we decline to prohibit conversions because of the line-drawing and administrative difficulties such a prohibition would create. A "no conversions" rule would require us to evaluate the relationships between and among a series of distinct transactions between a competitor and an incumbent LEC. For example, a carrier seeking to evade such a ban could argue that its order of a UNE did not constitute a conversion when it was not coincident with cancellation of the associated special access circuit, or when the UNE ordered and the tariffed offering surrendered were sufficiently distinct in functionality. AT&T points out that a rule prohibiting conversions would create numerous disputes over whether a customer contract reflects a new order or a renewal.[19] Qwest implicitly acknowledges the problems inherent in administering a conversion ban, advocating a carrier-specific approach to disallowing conversions, and seeking complementary rules that would prohibit the disconnection of a special access circuit and reactivation of a circuit which duplicates its function within 90 days.[20] Given the logistical challenges of creating a regime where specific carriers are entitled to particular circuits for specific periods of time, we find these regulations antithetical to our revised framework and too burdensome to adopt.

B. Implementation of Unbundling Determinations

233. We expect that incumbent LECs and competing carriers will implement the Commission's findings as directed by section 252 of the Act.[21] Thus, carriers must implement changes to their interconnection agreements consistent with our conclusions in this Order.[22] We note that the failure of an incumbent LEC or a competitive LEC to negotiate in good faith under section 251(c)(1) of the Act and our implementing rules may subject that party to enforcement action. Thus, the incumbent LEC and competitive LEC must negotiate in good faith regarding any rates, terms, and conditions necessary to implement our rule changes.[23] We expect that parties to the negotiating process will not unreasonably delay implementation of the conclusions adopted in this Order. We encourage the state commissions to monitor this area closely to ensure that parties do not engage in unnecessary delay.

234. We recognize that our rules governing access to dedicated transport and high-capacity loops evaluate impairment based upon objective and readily obtainable facts, such as the number of business lines or the number of facilities-based competitors in a particular market.[24] We therefore hold that to

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Comments at 78; BellSouth Dec. 7, 2004 Special Access *Ex Parte* Letter at 5. On the contrary, permitting conversions where requesting carriers are impaired and, thus, legally entitled to UNEs, ensures that competitive LECs are able to obtain network elements at prices that allow them to compete, as envisioned by the 1996 Act.

[18] *USTA II*, 359 F.3d at 593.

[19] AT&T Comments at 141.

[20] Qwest Reply at 66-67. Qwest would also bar a competitor purchasing a special access circuit from obtaining a UNE along a parallel circuit. *Id.*

[21] 47 U.S.C. § 252.

[22] *Id.*

[23] 47 U.S.C. § 251(c)(1); 47 U.S.C. § 252(b)(5).

[24] *See supra* Parts V.C.2, VI.C.2.

submit an order to obtain a high-capacity loop or transport UNE, a requesting carrier must undertake a reasonably diligent inquiry and, based on that inquiry, self-certify that, to the best of its knowledge, its request is consistent with the requirements discussed in parts IV, V, and VI above and that it is therefore entitled to unbundled access to the particular network elements sought pursuant to section 251(c)(3).[25] Upon receiving a request for access to a dedicated transport or high-capacity loop UNE that indicates that the UNE meets the relevant factual criteria discussed in sections V and VI above, the incumbent LEC must immediately process the request. To the extent that an incumbent LEC seeks to challenge any such UNEs, it subsequently can raise that issue through the dispute resolution procedures provided for in its interconnection agreements.[26] In other words, the incumbent LEC must provision the UNE and subsequently bring any dispute regarding access to that UNE before a state commission or other appropriate authority.[27]

IX. PROCEDURAL MATTERS

A. Effective Date of Rules

235. Given the need for prompt action, the requirements set forth here shall take effect on March 11, 2005, rather than 30 days after publication in the Federal Register. Commission rules permit us to render an order effective sooner than 30 days after publication in the Federal Register where good cause exists.[1] Similarly, section 553(d) of the Administrative Procedures Act (APA)[2] permits any agency to make a rule effective less than 30 days after its publication as "provided by the agency for good cause found and published with the rule."[3] Consistent with our rules and the APA, we find in this instance that there exists good cause to make this Order effective on March 11, 2005.

236. We find such good cause exists in this instance because making the rules effective on March 11 will serve the public interest by preventing unnecessary disruption to the marketplace. In adopting the interim unbundling requirements, which the rules we adopt today supplant, the Commission

[25] As in the past, we do not believe it is necessary to address the precise form that such a certification must take, but we note that a letter sent to the incumbent LEC by a requesting carrier is a practical method of certification. *See Triennial Review Order*, 18 FCC Rcd at 17369, para. 624; *Supplemental Order Clarification*, 15 FCC Rcd at 9602-03, para. 29. Although we again decline to adopt specific record-keeping requirements, we expect that requesting carriers will maintain appropriate records that they can rely upon to support their local usage certification. *See Triennial Review Order*, 18 FCC Rcd at 17370, para. 629; *Supplemental Order Clarification*, 15 FCC Rcd at 9604, para. 32.

[26] We do not adopt auditing rules for the self-certifications relating to our impairment rules for dedicated transport and high-capacity loops. We decline to adopt an auditing requirement because, in contrast to EELs self-certifications, the requesting carrier seeking access to the UNE certifies only to the best of its knowledge, and is unlikely to have in its possession all information necessary to evaluate whether the network element meets the factual impairment criteria in our rules. However, these rules do not supersede any audit rights included in any interconnection agreements or other commercial arrangements. *See, e.g.*, *Supplemental Order Clarification*, 15 FCC Rcd at 9604, para. 32 (noting that some interconnection agreements contain audit rights). Further, we retain our existing certification and auditing rules governing access to EELs. *See* 47 C.F.R. § 51.318.

[27] Of course, this mechanism for addressing incumbent LEC challenges to self-certifications is simply a default process, and pursuant to section 252(a)(1), carriers remain free to negotiate alternative arrangements. 47 U.S.C. § 252(a)(1).

[1] *See* 47 C.F.R. §§ 1.103(a), 1.427(b).

[2] 5 U.S.C. § 500 *et seq*.

[3] 5 U.S.C. § 553(d)(3).

provided that they would remain in effect only until the earlier of (1) six months after the effective date of the *Interim Order and NPRM*, or (2) the effective date of the rules adopted in this order.[4] The Commission also provided for transitional requirements to take effect for the six months following expiration of the interim rules.[5] We find that it would be contrary to the public interest and unnecessarily disruptive to the market to permit a gap between the expiration of the interim unbundling requirements and the effective date of the rules that we adopt today, during which the previously adopted transitional requirements would be effective for a short period of time. The Commission has exercised its section 553(d) authority based on considerations such as the need to avoid regulatory confusion and industry disruption arising from the delayed applicability of newly adopted rules.[6] These considerations are applicable here, and counsel implementation, by March 11, 2005, of the rules adopted herein.

B. Final Regulatory Flexibility Analysis

237. As required by the Regulatory Flexibility Act, *see* 5 U.S.C. § 603, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The FRFA is set forth in Appendix C.

C. Paperwork Reduction Act Analysis

238. 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).

X. ORDERING CLAUSES

239. Accordingly, IT IS ORDERED that pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, the *Order on Remand* in CC Docket No. 01-338 and WC Docket No. 04-313 IS ADOPTED, and that Part 51 of the Commission's Rules, 47 C.F.R. Part 51, is amended as set forth in Appendix B. The requirements of this Order shall become effective on March 11, 2005, pursuant to 5 U.S.C. § 553(d)(3).

240. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Emergency Joint Petition for Stay filed in CC Docket Nos. 01-338, 96-98 and 98-147 by the Coalition for High-Speed Online Internet Competition and Enterprise on August 27, 2003; the Joint Petition for Stay filed in CC Docket Nos. 01-338, 96-98 and 98-147 by BellSouth Corporation, Qwest Communications International, Inc., SBC Communications Inc., the United States Telecom Association, and the Verizon telephone companies on September 4, 2003; the Emergency Petition for Stay filed in CC Docket Nos. 01-338, 96-98 and 98-147 by Sage Telecom, Inc. on September 22, 2003; the Emergency Stay Petition filed in CC Docket Nos. 01-338, 96-98 and 98-147 by DCSI Corporation *et al.* on September 22, 2003; the Emergency Petition for Stay filed in CC Docket Nos. 01-338, 96-98 and 98-147 by NuVox Communications, Inc. on September 25, 2003; and the Petition for Emergency Stay filed in CC Docket

[4] *See Interim Order and NPRM*, 19 FCC Rcd 16783, 16794, para. 21.

[5] *See id.* at 16797-98, para. 29.

[6] *See Omnipoint Corp v. FCC*, 78 F.3d 620, 630 (D.C. Cir. 1996).

Nos. 01-338, 96-98 and 98-147 by Allegiance Telecom, Inc., Cbeyond Communications, LLC, El Paso Global Networks, Focal Communications Corporation, McLeodUSA Telecommunications Services, Inc., Mpower Communications Corp. and TDS Metrocom, LLC on September 26, 2003 ARE DISMISSED AS MOOT.

241. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Clarification or Reconsideration filed in CC Docket Nos. 01-338, 96-98 and 98-147 by AT&T Wireless on October 2, 2003; the Petition for Reconsideration or Clarification filed in CC Docket Nos. 01-338, 96-98 and 98-147 by the Cellular Telecommunications & Internet Association on October 2, 2003; the Petition for Reconsideration or Clarification filed in CC Docket Nos. 01-338, 96-98 and 98-147 by Nextel Communications, Inc. on October 2, 2003; and the Petition for Reconsideration filed in CC Docket Nos. 01-338, 96-98 and 98-147 by T-Mobile USA, Inc. on October 2, 2003 ARE DISMISSED AS MOOT.

242. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Reconsideration filed in CC Docket Nos. 01-338, 96-98 and 98-147 by the National Association of State Utility Consumer Advocates (NASUCA) on October 2, 2003 IS DISMISSED AS MOOT.

243. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Clarification and/or Partial Reconsideration filed in CC Docket Nos. 01-338, 96-98 and 98-147 by BellSouth Corporation on October 2, 2003 IS DISMISSED AS MOOT to the extent indicated herein.

244. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Reconsideration filed in CC Docket No. 01-338 by TSI Telecommunication Services, Inc. on October 3, 2003 IS DISMISSED AS MOOT.

245. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Waiver filed in CC Docket Nos. 01-338, 96-98 and 98-147 by the Telecommunications Regulatory Board of Puerto Rico on December 30, 2003 IS DISMISSED.

246. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Waiver filed in CC Docket Nos. 01-338, 96-98 and 98-147 by BellSouth Corporation on February 11, 2004 IS DISMISSED AS MOOT.

247. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Rulemaking filed by Qwest Communications International, Inc. on March 29, 2004 IS DISMISSED AS MOOT.

248. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Petition for Emergency Clarification and/or Errata filed in WC Docket No. 04-313 and CC Docket No. 01-338 by the Association for Local Telecommunications Services, Alpheus Communications, LP, Cbeyond Communications, LLC, Conversent Communications, LLC, GlobalCom, Inc., Mpower Communications Corp., New Edge Networks, Inc., OneEighty Communications, Inc., TDS Metrocom, LLC on August 27, 2004 IS DISMISSED AS MOOT.

249. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that the Emergency Petition for Expedited Determination that Competitive Local Exchange Carriers are Impaired Without DS1 UNE Loops filed in WC Docket No. 04-313 and CC Docket No. 01-338 by XO Communications, Inc. on September 29, 2004 IS DENIED.

250. IT IS FURTHER ORDERED, pursuant to Sections 1, 3, 4, 201-205, 251, 252, 256, 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 252, 256, 303(r) and Section 706 of the Telecommunications Act of 1996, 47 U.S.C. § 157 nt, that as of the effective date of this Order, the interim period described in the *Interim Order and NPRM*, WC Docket No. 01-338 and CC Docket No. 01-338, and all requirements associated with that period, shall terminate and be superseded by the transition periods described in this Order.

251. IT IS FURTHER ORDERED, that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Order on Remand*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A – LIST OF COMMENTERS

Commenter	**Abbreviation**
Access One Incorporated	Access One
ACN Communication Services, Inc.	ACN
ACS of Anchorage, Inc.	ACS
Ad Hoc Telecommunications Manufacturing Coalition	Ad Hoc Telecommunications Manufacturing Coalition
Alabama Public Service Commission	Alabama Commission
Alpheus Communications, L.P.	Alpheus
American Public Communications Council *et al*.	American Public Communications Council *et al*.
Arizona Corporation Commission	Arizona Commission
Association for Local Telecommunications Services Cbeyond Communications Blackfoot Communications, Inc. U.S. Telepacific Corp. d/b/a Telepacific Communications Eschelon Telecom, Inc. Choice One Communications Inc. Biddeford Internet Corporation d/b/a Great Works Internet Pac-West Telecom, Inc. US LEC Corp. Lightship Telecom Globalcom, Inc. Megagate Broadband, Inc. Broadriver Communications Corporation Network Telephone Corporation Supra Telecommunications and Information Systems, Inc. Cavalier Telephone, LLC New Edge Network, Inc. Conversent Communications, LLC FDN Communications segTEL, Inc.	ALTS *et al*.
AT&T Corp.	AT&T
ATX Communications, Inc. and Bluevista Phone Service	ATX and Bluevista
ATX Communications, Inc. Blackfoot Communications, Inc. Freedom Ring Communications, L.L.C. (d/b/a Bayring Communications) CTC Communications Corp. Focal Communications Corporation GlobalCom, Inc. Lightship Telecom, Inc.	ATX, Blackfoot, *et al*.

Commenter	**Abbreviation**
MPower Communications Corp., Ntelos, Inc. OneEighty Communications, Inc. RCN Telecom Services, Inc. TDS Metrocom, LLC	
BellSouth Corporation	BellSouth
California Public Utilities Commission	California Commission
CIENA Corporation	CIENA
CompTel/ASCENT Alliance	CompTel/ASCENT
Covad Communications Company	Covad
D.C. Public Service Commission	D.C. Public Service Commission
Dialog Telecommunications, Inc.	Dialog
Digital Telecommunications Inc.	Digital Telecommunications
EarthLink, Inc.	Earthlink
General Communications, Inc.	GCI
Hawaii Public Utilities Commission	Hawaii Public Utilities Commission
Integra Telecom, Inc.	Integra
Ionary Consulting Cat Communications Int'l Brahmacom	Ionary *et al*.
Iowa Utilities Board	Iowa Utilities Board
Kansas Corporation Commission	Kansas Commission
Loop and Transport CLEC Coalition Advanced Telecom, Inc. Birch Telecom, Inc. Broadview Networks, Inc. Eschelon Telecom, Inc. Grande Communications, Inc. KMC Telecom Holdings, Inc. NuVox Communications SNiP LiNK, LLC Talk America Inc. Xspedius Communications LLC XO Communications Inc.	Loop and Transport Coalition
MCI, Inc.	MCI
McLeodUSA Telecommunications Services, Inc.	McLeod
Michigan-Based CLEC Coalition	Michigan-Based CLEC Coalition
Michigan Public Service Commission	Michigan Public Service Commission
Minnesota Public Utilities Commission	Minnesota Public Utilities Commission
Missouri Public Service Commission	Missouri Public Service Commission

Commenter	**Abbreviation**
Montana Public Service Commission	Montana Public Service Commission
Mountain Telecommunications Inc.	Mountain Telecommunications
Momentum Telecom, Inc.	Momentum
National ALEC Association	National ALEC Association
National Association of State Utility Consumer Advocates	NASUCA
National Association of Regulatory Utility Commissioners	NARUC
Nebraska Utilities Commission	Nebraska Utilities Commission
New Jersey Board of Utilities	New Jersey Board of Utilities
New Jersey Division of the Ratepayer Advocate	New Jersey Ratepayer Advocate
New Mexico Public Regulation Commission	New Mexico Public Regulation Commission
New York State Department of Public Service	New York DPS
North Carolina Utilities Commission	North Carolina Utilities Commission
NTS Communications, Inc.	NTS
NuVox, Inc.	NuVox
Office of the Ohio Consumer's Counsel	Ohio Consumer's Counsel
Ohio Public Utilities Commission	Ohio Public Utilities Commission
Oklahoma Corporation Commission	Oklahoma Corporation Commission
Oregon Public Utility Commission	Oregon Public Utility Commission
The PACE Coalition Broadview Networks Grande Communications Talk America	PACE *et al*.
PAETEC Communications, Inc.	PAETEC
Pacific LightNet	Pacific LightNet
Pennsylvania Office of the Consumer Advocate	Pennsylvania Consumer Advocate
Pennsylvania Public Utilities Commission	Pennsylvania Public Utilities Commission
Public Service Commission of Maryland	Maryland Commission
Public Service Commission of West Virginia	Public Service Commission of West Virginia
Public Service Commission of Wisconsin	Public Service Commission of Wisconsin
Qwest Communications International Inc.	Qwest
SAFE-T Joint Commenters	SAFE-T Joint Commenters
SBC Communications Inc.	SBC
Small, Independent Competitive Local Exchange Carriers	Small, Independent

Commenter	**Abbreviation**
	Competitive Local Exchange Carriers
SouthEast Telephone, Inc.,	SouthEast
Sprint Corporation	Sprint
Stephen D. Barnes	Stephen D. Barnes
Supra Telecommunications and Information Systems, Inc.	Supra
Telescape Communications, Inc.	Telescape
Tennessee Regulatory Authority	Tennessee Regulatory Authority
Texas Office of the Public Utility Counsel Consumer Federation of America	Texas Office of Public Utility Council *et al*.
Texas Public Utility Commission	Texas Public Utility Commission
Time Warner Telecom	Time Warner Telecom
T-Mobile USA, Inc.	T-Mobile
U.S. Small Business Administration, Office of Advocacy	SBA
United States Telecom Association	USTA
United System Access Telecom, Inc., d/b/a USA Telephone	USA Telephone
Utah Committee of Consumer Services	Utah Committee of Consumer Services
Utah Division of Public Utilities	Utah Division of Public Utilities
Utah Public Service Commission	Utah Public Service Commission
Verizon Telephone Companies	Verizon
Vermont Department of Public Service	Vermont Department of Public Service
William R. Meyer	William R. Meyer
WorldNet Telecommunications	WorldNet

Reply Commenters	**Abbreviation**
ACN Communications Services, Inc	ACN
ACS of Alaska ACS of Anchorage ACS of Fairbanks	ACS
Alpheus Communications, L.P.	Alpheus
American Public Communication Counsel *et al*.	American Public Communication Counsel *et al*.
Association for Local Telecommunications Services Cbeyond Communications Blackfoot communications, Inc. U.S. Telepacific Corp. (d/b/a Great Works Internet) Pac-West Telecomm, Inc. US LEC Corp. Lightship Telecom Globalcom, Inc. Megagate Broadband, Inc. Broadriver Communication Corporation Network Telephone Corporation Supra Telecommunications and Information Systems, Inc. Cavalier Telephone, LLC New Edge Network, Inc. Conversent Communications, LLC FDN Communications segTEL, Inc.	ALTS *et al*.
AT&T Corp.	AT&T
ATX Communications Freedom Ring Communications L.L.C. (d/b/a BayRing Communications) CTC Communications Corp. Focal Communications Corporation Globalcom, Inc. MPower Communications Corp. NTELOS, Inc. RCN Telecom Services, Inc. TDS Metrocom, LLC	ATX, BayRing, *et al*.
BellSouth Corporation	BellSouth
Cbeyond Communications, LLC	Cbeyond
CIENA Communications	CIENA
Conversent Communications, LLC	Conversent
Covad Communications	Covad
Dialog Telecommunications	Dialog
Gateway Telecom (d/b/a Stratuswave Communications)	Gateway Telecom
General Communications, Inc	GCI
Global Internetworking, Inc.	Global Internetworking
Integra Telecom, Inc.	Integra

Reply Commenters	**Abbreviation**
ITC^DeltaCom Communications, Inc	ITC^DeltaCom
Kentucky Public Service Commission	Kentucky Public Service Commission
Loop and Transport CLEC Coalition Advanced Telecom, Inc. Birch Telecom, Inc. Broadview Networks, Inc. Eschelon Telecom, Inc. Grande Communications, Inc. KMC Telecom Holdings, Inc. NuVox Communications SNiP LiNK, LLC Talk America Inc. Xspedius Communications LLC XO Communications Inc.	Loop and Transport Coalition
MCI, Inc.	MCI
McLeodUSA Telecommunications Services, Inc.	McLeod
Momentum Telecom, Inc	Momentum
Mountain Telecommunications, Inc.	Mountain Telecommunications
National Association of State Utilities Consumer Advocates	NASUCA
Navigator Telecommunications, Inc	Navigator Telecommunications
New Jersey Division of Ratepayer Advocate	New Jersey Ratepayer Advocate
New York State Public Service Commission	New York DPS
Nextel	Nextel
NII Communications	NII Communications
NuVox, Inc.	NuVox
New York, TeleSave, Inc	TeleSave
Office of the Ohio Consumer's Counsel	Ohio Consumer's Counsel
Pennsylvania Public Utilities Commission	Pennsylvania Public Utilities Commission
The PACE Coalition Broadview Networks Grande Communications Talk America	PACE *et al*.
Puerto Rico Telecommunications Regulatory Board	Puerto Rico Telecommunications Regulatory Board
Puerto Rico Telephone Company	PRTC
Qwest Communications International, Inc.	Qwest
SBC Communications Inc.	SBC
SouthSlope Cooperative Telephone Company	SouthSlope
Sprint Corporation	Sprint
SYMTELO	SYMTELO
United States Telecom Association	USTA

Reply Commenters	**Abbreviation**
Teletruth and National Internet Alliance	TeleTruth
United States Access Telecom d/b/a USA Telephone	USA Telephone
Utah Committee of Consumer Services	Utah Committee of Consumer Services
Verizon Telephone Companies	Verizon
WorldNet Telecommunications	WorldNet

APPENDIX B – FINAL RULES

Part 51 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 51 – INTERCONNECTION

1. Section 51.5 is amended by removing the definitions for "Non-qualifying service" and "Qualifying service" and by adding five new definitions in alphabetical order to read as follows:

§ 51.5 Terms and Definitions.

Business line. A business line is an incumbent LEC-owned switched access line used to serve a business customer, whether by the incumbent LEC itself or by a competitive LEC that leases the line from the incumbent LEC. The number of business lines in a wire center shall equal the sum of all incumbent LEC business switched access lines, plus the sum of all UNE loops connected to that wire center, including UNE loops provisioned in combination with other unbundled elements. Among these requirements, business line tallies (1) shall include only those access lines connecting end-user customers with incumbent LEC end-offices for switched services, (2) shall not include non-switched special access lines, (3) shall account for ISDN and other digital access lines by counting each 64 kbps-equivalent as one line. For example, a DS1 line corresponds to 24 64 kbps-equivalents, and therefore to 24 "business lines."

* * * * *

Mobile wireless service. A mobile wireless service is any mobile wireless telecommunications service, including any commercial mobile radio service.

* * * * *

Fiber-based collocator. A fiber-based collocator is any carrier, unaffiliated with the incumbent LEC, that maintains a collocation arrangement in an incumbent LEC wire center, with active electrical power supply, and operates a fiber-optic cable or comparable transmission facility that (1) terminates at a collocation arrangement within the wire center; (2) leaves the incumbent LEC wire center premises; and (3) is owned by a party other than the incumbent LEC or any affiliate of the incumbent LEC, except as set forth in this paragraph. Dark fiber obtained from an incumbent LEC on an indefeasible right of use basis shall be treated as non-incumbent LEC fiber-optic cable. Two or more affiliated fiber-based collocators in a single wire center shall collectively be counted as a single fiber-based collocator. For purposes of this paragraph, the term affiliate is defined by 47 U.S.C. § 153(1) and any relevant interpretation in this Title.

* * * * *

Triennial Review Remand Order. The Triennial Review Remand Order is the Commission's Order on Remand in CC Docket Nos. 01-338 and 04-313 (released February 4, 2005).

* * * * *

Wire center. A wire center is the location of an incumbent LEC local switching facility containing one or more central offices, as defined in the Appendix to part 36 of this chapter. The wire center boundaries define the area in which all customers served by a given wire center are located.

* * * * *

2. Section 51.309 is amended by revising paragraphs (b), (d), and (g)(2) to read as follows:

§ 51.309 Use of unbundled network elements.

* * * * *

(b) A requesting telecommunications carrier may not access an unbundled network element for the exclusive provision of mobile wireless services or interexchange services.

* * * * *

(d) A requesting telecommunications carrier that accesses and uses an unbundled network element consistent with paragraph (b) of this section may provide any telecommunications services over the same unbundled network element.

* * * * *

(g) * * *

(2) Shares part of the incumbent LEC's network with access services or inputs for mobile wireless services and/or interexchange services.

* * * * *

3. Section 51.317 is amended by designating the paragraph heading "Proprietary network elements" as paragraph (a), redesignating paragraphs (a) and (b) as paragraphs (a)(1) and (a)(2), respectively, redesignating paragraphs (b)(1), (b)(2) and (b)(3) as paragraphs (a)(2)(i), (a)(2)(ii), and (a)(2)(iii), respectively, and adding new paragraph (b) to read as follows:

§ 51.317 Standards for requiring the unbundling of network elements.

* * * * *

(b) Non-proprietary network elements. The Commission shall determine whether a non-proprietary network element should be made available for purposes of section 251(c)(3) of the Act by analyzing, at a minimum, whether lack of access to a non-proprietary network element "impairs" a requesting carrier's ability to provide the service it seeks to offer. A requesting carrier's ability to provide service is "impaired" if, taking into consideration the availability of alternative elements outside the incumbent LEC's network, including elements self-provisioned by the requesting carrier or acquired as an alternative from a third-party supplier, lack of access to that element poses a barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market by a reasonably efficient competitor uneconomic.

* * * * *

4. Section 51.319 is amended by: removing paragraphs (a)(7) and (e)(4); redesignating paragraphs (a)(8) and (a)(9) as (a)(7) and (a)(8), respectively; redesignating paragraph (e)(5) as (e)(4); and revising paragraphs (a), (d), and (e) to read as follows:

§ 51.319 Specific unbundling requirements.

(a) * * *

(4) DS1 loops. (i) Subject to the cap described in paragraph (a)(4)(ii), 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 of these thresholds, no future DS1 loop unbundling will be required in that wire center. A DS1 loop is a digital local loop having a total digital signal speed of 1.544 megabytes per second. DS1 loops include, but are not limited to, two-wire and four-wire copper loops capable of providing high-bit rate digital subscriber line services, including T1 services.

(ii) Cap on unbundled DS1 loop circuits. A requesting telecommunications carrier may obtain a maximum of ten unbundled DS1 loops to any single building in which DS1 loops are available as unbundled loops.

(iii) Transition period for DS1 loop circuits. For a 12-month period beginning on the effective date of the Triennial Review Remand Order, any DS1 loop UNEs that a competitive LEC leases from the incumbent LEC as of that date, but which the incumbent LEC is not obligated to unbundle pursuant to paragraphs (a)(4)(i) or (a)(4)(ii) of this section, shall be available for lease from the incumbent LEC at a rate equal to the higher of (1) 115% of the rate the requesting carrier paid for the loop element on June 15, 2004, or (2) 115% of the rate the state commission has established or establishes, if any, between June 16, 2004, and the effective date of the Triennial Review Remand Order, for that loop element. Where incumbent LECs are not required to provide unbundled DS1 loops pursuant to paragraphs (a)(4)(i) or (a)(4)(ii) of this section, requesting carriers may not obtain new DS1 loops as unbundled network elements.

(5) DS3 loops. (i) Subject to the cap described in paragraph (a)(5)(ii), 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 both of these thresholds, no future DS3 loop unbundling will be required in that wire center. A DS3 loop is a digital local loop having a total digital signal speed of 44.736 megabytes per second.

(ii) Cap on unbundled DS3 loop circuits. A requesting telecommunications carrier may obtain a maximum of a single unbundled DS3 loop to any single building in which DS3 loops are available as unbundled loops.

(iii) Transition period for DS3 loop circuits. For a 12-month period beginning on the effective date of the Triennial Review Remand Order, any DS3 loop UNEs that a competitive LEC leases from the incumbent LEC as of that date, but which the incumbent LEC is not obligated to unbundle pursuant to paragraphs (a)(5)(i) or (a)(5)(ii) of this section, shall be available for lease from the incumbent LEC at a rate equal to the higher of (1) 115% of the rate the requesting carrier paid for the loop element on June 15, 2004, or (2) 115% of the rate the state commission has established or establishes, if any, between June 16, 2004, and the effective date of the Triennial Review Remand Order, for that loop element. Where incumbent LECs are not required to provide unbundled DS3 loops pursuant to paragraphs (a)(5)(i) or (a)(5)(ii) of this section, requesting carriers may not obtain new DS3 loops as unbundled network elements.

(6) Dark fiber loops. (i) An incumbent LEC is not required to provide requesting telecommunications carriers with access to a dark fiber loop on an unbundled basis. Dark fiber is fiber within an existing fiber optic cable that has not yet been activated through optronics to render it capable of carrying communications services.

(ii) Transition period for dark fiber loop circuits. For an 18-month period beginning on the effective date of the Triennial Review Remand Order, any dark fiber loop UNEs that a competitive LEC leases from the incumbent LEC as of that date shall be available for lease from the incumbent LEC at a rate equal to the higher of (1) 115% of the rate the requesting carrier paid for the loop element on June 15, 2004, or (2) 115% of the rate the state commission has established or establishes, if any, between June 16, 2004, and the effective date of the Triennial Review Remand Order, for that loop element. Requesting carriers may not obtain new dark fiber loops as unbundled network elements.

* * * * *

(d) Local circuit switching.

(1) * * *

(2) DS0 capacity (*i.e.*, mass market) determinations.

(i) An incumbent LEC is not required to provide access to local circuit switching on an unbundled basis to requesting telecommunications carriers for the purpose of serving end-user customers using DS0 capacity loops.

(ii) Each requesting telecommunications carrier shall migrate its embedded base of end-user customers off of the unbundled local circuit switching element to an alternative arrangement within 12 months of the effective date of the Triennial Review Remand Order.

(iii) Notwithstanding paragraph (d)(2)(i) of this section, for a 12-month period from the effective date of the Triennial Review Remand Order, an incumbent LEC shall provide access to local circuit switching on an unbundled basis for a requesting carrier to serve its embedded base of end-user customers. The price for unbundled local circuit switching in combination with unbundled DS0 capacity loops and shared transport obtained pursuant to this paragraph shall be the higher of: (A) the rate at which the requesting carrier obtained that combination of network elements on June 15, 2004 plus one dollar, or (B) the rate the state public utility commission establishes, if any, between June 16, 2004, and the effective date of the Triennial Review Remand Order, for that combination of network elements, plus one dollar. Requesting carriers may not obtain new local switching as an unbundled network element.

(3) * * *

(4) Other elements to be unbundled. Elements relating to the local circuit switching element shall be made available on an unbundled basis to a requesting carrier to the extent that the requesting carrier is entitled to unbundled local circuit switching as set forth in paragraph (d)(2) of this section.

(i) An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to signaling, call-related databases, and shared transport facilities on an unbundled basis, in accordance with section 251(c)(3) of the Act and this part, to the extent that local circuit switching is required to be made available pursuant to paragraph (d)(2)(iii). These elements are defined as follows:

(A) Signaling networks. Signaling networks include, but are not limited to, signaling links and signaling transfer points.

(B) Call-related databases. Call-related databases are defined as databases, other than operations support systems, that are used in signaling networks for billing and collection, or the transmission, routing, or other provision of a telecommunications service. Where a requesting telecommunications carrier purchases unbundled local circuit switching from an incumbent LEC, an incumbent LEC shall allow a requesting telecommunications carrier to use the incumbent LEC's service control point element in the same manner, and via the same signaling links, as the incumbent LEC itself.

(1) Call-related databases include, but are not limited to, the calling name database, 911 database, E911 database, line information database, toll free calling database, advanced intelligent network databases, and downstream number portability databases by means of physical access at the signaling transfer point linked to the unbundled databases.

(2) Service management systems are defined as computer databases or systems not part of the public switched network that interconnect to the service control point and send to the service control point information and call processing instructions needed for a network switch to process and complete a telephone call, and provide a telecommunications carrier with the capability of entering and storing data regarding the processing and completing of a telephone call. Where a requesting telecommunications carrier purchases unbundled local circuit switching from an incumbent LEC, the incumbent LEC shall allow a requesting telecommunications carrier to use the incumbent LEC's service management systems by providing a requesting telecommunications carrier with the information necessary to enter correctly, or format for entry, the information relevant for input into the incumbent LEC's service management system, including access to design, create, test, and deploy advanced intelligent network-based services at the service management system, through a service creation environment, that the incumbent LEC provides to itself.

(3) An incumbent LEC shall not be required to unbundle the services created in the advanced intelligent network platform and architecture that qualify for proprietary treatment.

(C) Shared transport. Shared transport is defined as the transmission facilities shared by more than one carrier, including the incumbent LEC, between end office switches, between end office switches and tandem switches, and between tandem switches, in the incumbent LEC network.

(e) Dedicated transport. An incumbent LEC shall provide a requesting telecommunications carrier with nondiscriminatory access to dedicated transport on an unbundled basis, in accordance with section 251(c)(3) of the Act and this part, as set forth in paragraphs (e) through (e)(4) of this section. A "route" is a transmission path between one of an incumbent LEC's wire centers or switches and another of the incumbent LEC's wire centers or switches. A route between two points (*e.g.*, wire center or switch "A" and wire center or switch "Z") may pass through one or more intermediate wire centers or switches (*e.g.*, wire center or switch "X"). Transmission paths between identical end points (*e.g.*, wire center or switch "A" and wire center or switch "Z") are the same "route," irrespective of whether they pass through the same intermediate wire centers or switches, if any.

(1) Definition. For purposes of this section, dedicated transport includes incumbent LEC transmission facilities between wire centers or switches owned by incumbent LECs, or between wire centers or switches owned by incumbent LECs and switches owned by requesting telecommunications carriers, including, but not limited to, DS1-, DS3-, and OCn-capacity level services, as well as dark fiber, dedicated to a particular customer or carrier.

(2) Availability.

(i) Entrance facilities. An incumbent LEC is not obligated to provide a requesting carrier with unbundled access to dedicated transport that does not connect a pair of incumbent LEC wire centers.

(ii) Dedicated DS1 transport. Dedicated DS1 transport shall be made available to requesting carriers on an unbundled basis as set forth below. Dedicated DS1 transport consists of incumbent LEC interoffice transmission facilities that have a total digital signal speed of 1.544 megabytes per second and are dedicated to a particular customer or carrier.

(A) General availability of DS1 transport. Incumbent LECs shall unbundle DS1 transport between any pair of incumbent LEC wire centers except where, through application of tier classifications described in paragraph (e)(3) of this section, both wire centers defining the route are Tier 1 wire centers. As such, an incumbent LEC must unbundle DS1 transport if a wire center at either end of a requested route is not a Tier 1 wire center, or if neither is a Tier 1 wire center.

(B) Cap on unbundled DS1 transport circuits. A requesting telecommunications carrier may obtain a maximum of ten unbundled DS1 dedicated transport circuits on each route where DS1 dedicated transport is available on an unbundled basis.

(C) Transition period for DS1 transport circuits. For a 12-month period beginning on the effective date of the Triennial Review Remand Order, any DS1 dedicated transport UNE that a competitive LEC leases from the incumbent LEC as of that date, but which the incumbent LEC is not obligated to unbundle pursuant to paragraphs (e)(2)(ii)(A) or (e)(2)(ii)(B) of this section, shall be available for lease from the incumbent LEC at a rate equal to the higher of (1) 115 percent of the rate the requesting carrier paid for the dedicated transport element on June 15, 2004, or (2) 115 percent of the rate the state commission has established or establishes, if any, between June 16, 2004, and the effective date of the Triennial Review Remand Order, for that dedicated transport element. Where incumbent LECs are not required to provide unbundled DS1 transport

pursuant to paragraphs (e)(2)(ii)(A) or (e)(2)(ii)(B) of this section, requesting carriers may not obtain new DS1 transport as unbundled network elements.

(iii) Dedicated DS3 transport. Dedicated DS3 transport shall be made available to requesting carriers on an unbundled basis as set forth below. Dedicated DS3 transport consists of incumbent LEC interoffice transmission facilities that have a total digital signal speed of 44.736 megabytes per second and are dedicated to a particular customer or carrier.

(A) General availability of DS3 transport. Incumbent LECs shall unbundle DS3 transport between any pair of incumbent LEC wire centers except where, through application of tier classifications described in paragraph (e)(3) of this section, both wire centers defining the route are either Tier 1 or Tier 2 wire centers. As such, an incumbent LEC must unbundle DS3 transport if a wire center on either end of a requested route is a Tier 3 wire center.

(B) Cap on unbundled DS3 transport circuits. A requesting telecommunications carrier may obtain a maximum of 12 unbundled DS3 dedicated transport circuits on each route where DS3 dedicated transport is available on an unbundled basis.

(C) Transition period for DS3 transport circuits. For a 12-month period beginning on the effective date of the Triennial Review Remand Order, any DS3 dedicated transport UNE that a competitive LEC leases from the incumbent LEC as of that date, but which the incumbent LEC is not obligated to unbundle pursuant to paragraphs (e)(2)(iii)(A) or (e)(2)(iii)(B) of this section, shall be available for lease from the incumbent LEC at a rate equal to the higher of (1) 115 percent of the rate the requesting carrier paid for the dedicated transport element on June 15, 2004, or (2) 115 percent of the rate the state commission has established or establishes, if any, between June 16, 2004, and the effective date of the Triennial Review Remand Order, for that dedicated transport element. Where incumbent LECs are not required to provide unbundled DS3 transport pursuant to paragraphs (e)(2)(iii)(A) or (e)(2)(iii)(B) of this section, requesting carriers may not obtain new DS3 transport as unbundled network elements.

(iv) Dark fiber transport. Dedicated dark fiber transport shall be made available to requesting carriers on an unbundled basis as set forth below. Dark fiber transport consists of unactivated optical interoffice transmission facilities.

(A) General availability of dark fiber transport. Incumbent LECs shall unbundle dark fiber transport between any pair of incumbent LEC wire centers except where, though application of tier classifications described in paragraph (e)(3) of this section, both wire centers defining the route are either Tier 1 or Tier 2 wire centers. As such, 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.

(B) Transition period for dark fiber transport circuits. For an 18-month period beginning on the effective date of the Triennial Review Remand Order, any dark fiber dedicated transport UNE that a competitive LEC leases from the incumbent LEC as of that date, but which the incumbent LEC is not obligated to unbundle pursuant to paragraphs (e)(2)(iv)(A) or (e)(2)(iv)(B) of this section, shall be

available for lease from the incumbent LEC at a rate equal to the higher of (1) 115 percent of the rate the requesting carrier paid for the dedicated transport element on June 15, 2004, or (2) 115 percent of the rate the state commission has established or establishes, if any, between June 16, 2004, and the effective date of the Triennial Review Remand Order, for that dedicated transport element. Where incumbent LECs are not required to provide unbundled dark fiber transport pursuant to paragraphs (e)(2)(iv)(A) or (e)(2)(iv)(B) of this section, requesting carriers may not obtain new dark fiber transport as unbundled network elements.

(3) Wire center tier structure. For purposes of this section, incumbent LEC wire centers shall be classified into three tiers, defined as follows:

(i) Tier 1 wire centers are those incumbent LEC wire centers that contain at least four fiber-based collocators, at least 38,000 business lines, or both. Tier 1 wire centers also are those incumbent LEC tandem switching locations that have no line-side switching facilities, but nevertheless serve as a point of traffic aggregation accessible by competitive LECs. Once a wire center is determined to be a Tier 1 wire center, that wire center is not subject to later reclassification as a Tier 2 or Tier 3 wire center.

(ii) Tier 2 wire centers are those incumbent LEC wire centers that are not Tier 1 wire centers, but contain at least 3 fiber-based collocators, at least 24,000 business lines, or both. Once a wire center is determined to be a Tier 2 wire center, that wire center is not subject to later reclassification as a Tier 3 wire center.

(iii) Tier 3 wire centers are those incumbent LEC wire centers that do not meet the criteria for Tier 1 or Tier 2 wire centers.

* * * * *

APPENDIX C – FINAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Interim Order and NPRM* in this proceeding.[2] The Commission sought written comment on the proposals in the *Interim Order and NPRM*, including comment on the IRFA. The present Final Regulatory Flexibility Analysis (FRFA) addresses comments received on the IRFA and conforms to the RFA.[3]

A. Need for, and Objectives of, the Order on Remand

2. This Order responds to the United States Court of Appeals for the District of Columbia's *USTA II* decision, which vacated and remanded significant portions of the *Triennial Review Order's* unbundling rules.[4] Based on the record compiled in response to the *Triennial Review NPRM*,[5] the Commission adopted, in the *Triennial Review Order*, new unbundling rules implementing section 251 of the 1996 Act.[6] The *Triennial Review Order* reinterpreted the statute's "impair" standard and reevaluated incumbent LECs' unbundling obligations with regard to particular elements. Various parties appealed the *Triennial Review Order*, and on March 2, 2004, the D.C. Circuit decided *USTA II*, vacating and remanding several of the *Triennial Review Order*'s unbundling rules. In this Order, we address the remanded issues and take additional steps to encourage the innovation and investment that results from facilities-based competition.

3. Specifically, this Order clarifies the *Triennial Review Order*'s impairment standard in one respect and modifies the unbundling framework in three respects. *First*, we clarify that we evaluate impairment with regard to the capabilities of a *reasonably efficient* competitor. *Second*, we set aside the *Triennial Review Order*'s "qualifying service" interpretation of section 251(d)(2), but prohibit the use of UNEs for the provision of telecommunications services in the mobile wireless and long-distance markets, which we previously have found to be competitive. *Third*, in applying our impairment test, we draw reasonable inferences regarding the prospects for competition in one geographic market based on the state of competition in other, similar markets. *Fourth*, we consider the appropriate role of tariffed incumbent

[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1966 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338, Order and Notice of Proposed Rulemaking, 19 FCC Rcd 16783, 16804 (2004) (*Interim Order and NPRM*).

[3] *See* 5 U.S.C. § 604.

[4] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, 18 FCC Rcd 16978, 17145, para. 278 (2003) (*Triennial Review Order*), *corrected by* Errata, 18 FCC Rcd 19020 (2003), *vacated and remanded in part, affirmed in part, United States Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) (*USTA II*). In the *Interim Order and NPRM*, the Commission sought comment on how to respond to the *USTA II* decision. Our decision today is based on comments filed in response to the *Interim Order and NPRM* and focuses on those issues that were remanded to us.

[5] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147, Notice of Proposed Rulemaking, 16 FCC Rcd 22781 (2001) (*Triennial Review NPRM*).

[6] *Triennial Review Order*, 18 FCC Rcd at 17155-75, 17199-223, 17263-79, paras. 298-327, 359-93, 459-79.

LEC services in our unbundling framework, and determine that in the context of the local exchange markets, a general rule prohibiting access to UNEs whenever a requesting carrier is able to compete using an incumbent LEC's tariffed offering would be inappropriate. We then apply this revised unbundling framework to the dedicated transport network element, the high-capacity loop network element, and the mass market local circuit switching network element. In each case, we adopt a result that will promote the deployment of competitive facilities wherever possible, spreading the benefits of facilities-based competition to market entrants and end-user customers alike, including small businesses falling into each category.

B. Summary and Discussion of Significant Issues Raised by Public Comments in Response to IRFA

4. In this section, we respond to comments filed in response to the IRFA.[7] To the extent we received comments raising general small business concerns during this proceeding, those comments are discussed throughout the Order and are summarized in part E, below.

5. First, we reject TeleTruth's contention that the Commission fails to assess the impact of its unbundling rules on small Internet Service Providers (ISPs), and that this failure violates the RFA.[8] Although we understand that our rules will have an economic impact in many sectors of the economy, including the ISP market, the RFA only requires the Commission to consider the impact on entities *directly* subject to our rules. The RFA is not applicable to ISPs because, as we previously noted, ISPs are only *indirectly* affected by our unbundling actions.[9] In the interest of ensuring notice to all interested parties and out of an abundance of caution, we have previously included ISPs among the entities potentially indirectly affected by our unbundling rules, although we have been explicit in emphasizing that ISPs are only indirectly affected by these rules. On this subject, we note that the D.C. Circuit "has consistently held that the RFA imposes no obligation to conduct a small entity impact analysis of effects on entities which [the agency conducting the analysis] does not regulate."[10] Thus, we emphasize that the RFA imposes no independent obligation to examine the effects an agency's action will have on the customers, clients, or end users of the companies it regulates – including ISPs – unless such entities are, themselves, subject to regulation by the agency. In any event, we have considered the needs of small business customers of competitive (and incumbent) LECs throughout this Order and previous orders, in each case choosing the outcome that will foster facilities-based competition and the benefits such competition will bring to small businesses and other consumers of telecommunications.

6. We also reject TeleTruth's argument that the Commission violates the RFA by relying on outdated 1997 Census Bureau data to identify the number of ISPs potentially affected by our final rules in the IRFA. The 1997 Census Bureau data were and still are the most current data available. According

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[7] *See* Digital Telecommunications Comments; Dialog Comments; SBA Comments; TeleTruth TRO Reply; TeleTruth DQA Reply; Letter from Genevieve Morelli and Jennifer M. Kashatus, Counsel for PACE *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 6, 2004) (PACE *et al*. Dec. 6, 2004 *Ex Parte* Letter).

[8] TeleTruth TRO Reply at 11, 15-17.

[9] *See, e.g.*, *Triennial Review Order*, 18 FCC Rcd at 17437, para. 775; *see infra* para. 42.

[10] *Michigan v. EPA*, 213 F.3d 663, 689 (D.C. Cir. 2000) (internal quotation marks omitted); *see also Motor & Equip. Mfrs. Ass'n. v. Nichols*, 142 F.3d 449, 467 (D.C. Cir. 1998); *United Distribution Cos. v. FERC*, 88 F.3d 1105, 1170 (D.C. Cir. 1996); *American Trucking Assn's, Inc. v. EPA*, 175 F.3d 1027, 1044, *reh'g granted in part, denied in part* 195 F.3d 4 (D.C. Cir. 1999), *rev'd in part on other grounds*, 531 U.S. 457 (2001).

to TeleTruth, data compiled by both the SBA and Boardwatch/ISP-Planet, an ISP-focused periodical,[11] indicate that the number of ISPs is close to 7,000, rather than the 2,751 ISPs identified by the IRFA.[12] Although TeleTruth cites to higher numbers, the Census Bureau has not released the more recent (2002) results for telecommunications providers or for ISPs.[13] Thus, the IRFA in this proceeding and this FRFA appropriately rely on the most up-to-date 1997 Census Bureau data and therefore comply with the RFA.

7. We disagree with TeleTruth's claim that by relying on 1997 Census Bureau data in the IRFA, the Commission violates the Data Quality Act (DQA).[14] We conclude that the IRFA's description of the ISP marketplace based on 1997 Census Bureau data was consistent with the Commission's DQA guidelines. As an initial matter, the DQA requires federal agencies to issue information quality guidelines ensuring the quality, utility, objectivity and integrity of information that they disseminate, and to provide mechanisms by which affected persons can take action to correct any errors reflected in such information.[15] In 2002, the Commission adopted guidelines implementing the DQA stating that it is dedicated to ensuring that all data that it disseminates reflect a level of quality commensurate with the nature of the information.[16] Specifically, these guidelines require the Commission to review and substantiate the quality of information before it is disseminated to the public and describe the administrative mechanisms allowing affected persons to seek and obtain correction of information that does not comply with the guidelines.[17] By relying on the most recent Census Bureau data, the Commission complied with DQA guidelines as the Census Bureau is the leading source of high-quality

[11] *See http://www.isp-planet.com*.

[12] TeleTruth TRO Reply at 11-13; TeleTruth DQA Reply at 7. The RFA requires all agencies to use size standards set by the SBA to determine whether businesses are small businesses. SBA sets the standards using the North American Industry Classification System (NAICS) and once an agency has identified the industry by code, it uses the NAICS code in combination with the U.S. Census data to identify the number of small businesses. As noted in the IRFA, under the SBA size standard for ISPs, a business is small if it has average annual receipts of $21 million or less. According to Census Bureau data for 1997, there were 2,751 firms in this category that operated for the entire year. U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 4, Receipts Size of Firms Subject to Federal Income Tax: 1997, NAICS code 514191 (issued October 2000). We note that the SBA figure cited by TeleTruth departs from the revenue-based size standard typically employed by SBA and relied on by this Commission. Specifically, the SBA filing on which TeleTruth relies indicates that "there are a total of 7,099 ISP firms, of which 6,975 [have] less than 500 employees." *See* TeleTruth TRO Reply at 11; TeleTruth DQA Reply at 7; Letter from Thomas M. Sullivan, Chief Counsel for Advocacy, on behalf of Small Business Administration, Office of Advocacy, to Chairman Powell, FCC, CC Docket No. 02-33 (filed Aug. 27, 2002). Thus, in this case, the SBA has relied on a size standard based on the number of employees working for an enterprise, rather than relying on its own revenue-based standard for firms. We do not believe that case-by-base departure from the SBA revenue-based approach to categorizing ISPs would be appropriate. In this context, we have used the very specific and sole NAICS code for the purpose at hand.

[13] The Census Bureau will release final revised firm, employees, and revenue data concerning telecommunication providers and ISPs sometime during the last quarter of 2005. Please refer to the Census Bureau's webpage at *http://www.census.gov/econ/census02/guide/g02sched.htm* for more details.

[14] *See* TeleTruth DQA Reply at 1-10; TeleTruth TRO Reply at 15.

[15] *See* Treasury and General Government Appropriation Act for Fiscal Year 2001, Pub. L. No. 106-554, § 515 Appendix C, 114 Stat. 2763A-153 (2000).

[16] *See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Pursuant to Section 515 of Public Law No. 105-554*, Information Quality Guidelines, 17 FCC Rcd. 19890, 19891, para. 5 (2002) (DQA Guidelines).

[17] DQA Guidelines, 17 FCC Rcd. at 19894 (App. A).

data of the sort set forth in the IRFA – and a source on which we have consistently relied.[18] In this regard, we note that the Census Bureau data and SBA generic small business size standards track each other precisely, as intended by both the Census Bureau and SBA.[19]

8. We also reject TeleTruth's argument that the Commission violates the RFA by failing to conduct proper outreach to small businesses for purposes of compiling a comprehensive record in this proceeding.[20] The Commission has satisfied its RFA obligation to assure that small companies were able to participate in this proceeding. Specifically, the RFA requires the Commission to "assure that small entities have been given an opportunity to participate in the rulemaking," and proposes as example five "reasonable techniques" that an agency might employ to do so.[21] In this proceeding, the Commission has complied with the RFA by employing several of these techniques: it (1) has published a "notice of proposed rulemaking in publications likely to be obtained by small entities";[22] (2) has "inclu[ded] . . . a statement that the proposed rule may have a significant economic effect on a substantial number of small entities" in the *Interim Order and NPRM*;[23] (3) has solicited comments over its computer network;[24] and (4) has acted "to reduce the cost or complexity of participation in the rulemaking by small entities" by, among other things, facilitating electronic submission of comments.[25]

9. We also disagree with commenters that claim that the Commission did not specifically consider the impact of eliminating UNEs on small businesses or describe alternatives to minimize any impact in the IRFA.[26] Although the Small Business Administration Office of Advocacy (SBA) recommends that we issue a revised IRFA to account for the impact our rules might have on small competitive LECs,[27] we believe it is not necessary since the *Interim Order and NPRM* explained in detail the ruling of the D.C. Circuit in *USTA II*, which gave rise to this proceeding; posed specific questions to commenters regarding the proper implementation of that decision; and solicited comment from all parties. While the NPRM did not specify particular results the Commission would consider – and the IRFA therefore did not catalogue the effects that such particular results might have on small businesses – the Commission provided notice

[18] TelTruth DQA Reply at 1-10. *See* TeleTruth TRO Reply at 15. TeleTruth also argues that the *Triennial Review Order* and other Commission orders have violated the DQA in various respects. *See* TeleTruth TRO Reply at 18-25. We need not reach the merits of these complaints in this remand proceeding. To the extent a party believes that a Commission order has violated federal law, that party should seek recourse in the context of a petition for reconsideration of the order at issue or before an appropriate court, not in the context of a subsequent rulemaking proceeding. *See, e.g.*, TeleTruth TRO Reply at 7.

[19] For instance, the universe of ISPs is defined and tracked by the Census Bureau, and the SBA assesses the same pool as the Census Bureau in determining the appropriate size standard.

[20] TeleTruth argues that publication in the Federal Register is not outreach. TeleTruth TRO Reply at 14.

[21] 5 U.S.C. § 609.

[22] *Id.* § 609(a)(2). TeleTruth has provided no reason to believe that small carriers would be unfamiliar with the Federal Register, in which all federal regulations pertinent to those companies' operations are published. We note that a summary of the *Interim Order and NPRM* was published in the Federal Register at 69 FR 55128 (Sept. 13, 2004).

[23] 5 U.S.C. § 609(a)(1).

[24] *Id.* § 609(a)(2).

[25] *Id.* § 609(a)(5).

[26] SBA Comments at 3-5; Digital Telecommunications Comments at 10-12; Dialog Comments at 6-7.

[27] SBA Comments at 2.

to parties regarding the range of policy outcomes that might result from this Order. As indicated above, a summary of the *Interim Order and NPRM* was published in the Federal Register, and we believe that such publication constitutes appropriate notice to small businesses subject to this Commission's regulation. Indeed, far from discouraging small entities from participating, the *Interim Order and NPRM* and the associated IRFA elicited extensive comment on issues affecting small businesses.[28] These comments have enabled us to consider the concerns of competitive LECs throughout this Order. Moreover, in Part C, below, we attempt to estimate the number of competitive LECs that will be affected by the rules we adopt herein. We therefore reject arguments that small entities were prejudiced by any lack of specificity regarding specific results potentially resulting from this proceeding.

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

10. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein.[29] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[30] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[31] A "small business concern" is one which (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[32]

11. In this section, we further describe and estimate the number of small entity licensees and regulatees that may be affected by our action. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the number of commercial wireless entities, appears to be the data that the Commission publishes in its *Trends in Telephone Service* report.[33] The SBA has developed small business size standards for wireline and wireless small businesses within the three commercial census categories of Wired Telecommunications Carriers,[34] Paging,[35] and Cellular and Other Wireless Telecommunications.[36] Under these categories, a

[28] *See* Digital Telecommunications Comments; Dialog Comments; SBA Comments; TeleTruth TRO Reply; TeleTruth DQA Reply.

[29] *Id.* § 604(a)(3).

[30] *Id.* § 601(6).

[31] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" set forth in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[32] 15 U.S.C. § 632.

[33] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, Table 5.3, Page 5-5 (May 2004) (*Trends in Telephone Service*). This source uses data that are current as of October 22, 2003.

[34] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 513310 (changed to 517110 in Oct. 2002).

[35] 13 C.F.R. § 121.201, NAICS code 513321 (changed to 517211 in Oct. 2002).

[36] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in Oct. 2002).

business is small if it has 1,500 or fewer employees. Below, using the above size standards and others, we discuss the total estimated numbers of small businesses that might be affected by our actions.

12. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[37] SBA Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[38] We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

13. *Wired Telecommunications Carriers*. The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.[39] According to Census Bureau data for 1997, there were 2,225 firms in this category, total, that operated for the entire year.[40] Of this total, 2,201 firms had employment of 999 or fewer employees, and an additional 24 firms had employment of 1,000 employees or more.[41] Thus, under this size standard, the great majority of firms can be considered small.

14. *Incumbent Local Exchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services (LECs). The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[42] According to Commission data,[43] 1,310 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,310 carriers, an estimated 1,025 have 1,500 or fewer employees and 285 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our proposed action.

15. *Competitive Local Exchange Carriers, Competitive Access Providers (CAPs), "Shared-Tenant Service Providers," and "Other Local Service Providers."* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size

[37] 15 U.S.C. § 632.

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

[39] 13 C.F.R. § 121.201, NAICS code 513310 (changed to 517110 in Oct. 2002).

[40] 1997 Economic Census, Establishment and Firm Size, Table 5, NAICS code 513310 (issued Oct. 2000).

[41] *Id*. The Census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1,000 employees or more."

[42] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517110 (changed from 513310 in October 2002).

[43] *Trends in Telephone Service* at Table 5.3.

standard, such a business is small if it has 1,500 or fewer employees.[44] According to Commission data,[45] 563 carriers have reported that they are engaged in the provision of either CAP services or competitive LEC services. Of these 563 carriers, an estimated 472 have 1,500 or fewer employees and 91 have more than 1,500 employees. In addition, 14 carriers have reported that they are "Shared-Tenant Service Providers," and all 14 are estimated to have 1,500 or fewer employees. In addition, 37 carriers have reported that they are "Other Local Service Providers." Of the 37, an estimated 36 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, "Shared-Tenant Service Providers," and "Other Local Service Providers" are small entities that may be affected by our proposed action.

16. *Interexchange Carriers (IXCs).* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[46] According to Commission data,[47] 281 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 254 have 1,500 or fewer employees and 27 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by our proposed action.

17. *Operator Service Providers (OSPs).* Neither the Commission nor the SBA has developed a small business size standard specifically for OSPs. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[48] According to Commission data,[49] 23 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 22 have 1,500 or fewer employees and one has more than 1,500 employees. Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our proposed action.

18. *Prepaid Calling Card Providers.* The SBA has developed a size standard for a small business within the category of Telecommunications Resellers. Under that SBA size standard, such a business is small if it has 1,500 or fewer employees.[50] According to Commission data, 32 companies reported that they were engaged in the provision of prepaid calling cards.[51] Of these 32 companies, an estimated 31 have 1,500 or fewer employees and one has more than 1,500 employees.[52] Consequently, the Commission estimates that the great majority of prepaid calling card providers are small entities that may be affected by the rules and policies adopted herein.

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[44] 13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in October 2002).

[45] *Trends in Telephone Service* at Table 5.3.

[46] 13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in October 2002).

[47] *Trends in Telephone Service* at Table 5.3.

[48] 13 C.F.R. § 121.201, NAICS code 517110 (changed from 513310 in October 2002).

[49] *Trends in Telephone Service* at Table 5.3.

[50] 13 C.F.R. § 121.201, NAICS code 513330 (changed to 517310 in Oct. 2002).

[51] *Trends in Telephone Service* at Table 5.3.

[52] *Id.*

19. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to "Other Toll Carriers." This category includes toll carriers that do not fall within the categories of interexchange carriers, OSPs, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[53] According to Commission's data, 65 companies reported that their primary telecommunications service activity was the provision of other toll services.[54] Of these 65 companies, an estimated 62 have 1,500 or fewer employees and three have more than 1,500 employees.[55] Consequently, the Commission estimates that most "Other Toll Carriers" are small entities that may be affected by the rules and policies adopted herein.

20. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of "Paging"[56] and "Cellular and Other Wireless Telecommunications."[57] Under both SBA categories, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 1997 show that there were 1,320 firms in this category, total, that operated for the entire year.[58] Of this total, 1,303 firms had employment of 999 or fewer employees, and an additional 17 firms had employment of 1,000 employees or more.[59] Thus, under this category and associated small business size standard, the great majority of firms can be considered small. For the census category Cellular and Other Wireless Telecommunications, Census Bureau data for 1997 show that there were 977 firms in this category, total, that operated for the entire year.[60] Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.[61] Thus, under this second category and size standard, the great majority of firms can, again, be considered small.

21. *Broadband PCS.* The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small entity" for Blocks C and F as an entity that has average gross revenues of $40 million or less in the three

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[53] 13 C.F.R. § 121.201, NAICS code 513310 (changed to 517110 in Oct. 2002).

[54] *Trends in Telephone Service* at Table 5.3.

[55] *Id.*

[56] 13 C.F.R. § 121.201, NAICS code 513321 (changed to 517211 in October 2002).

[57] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[58] U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued October 2000).

[59] U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued October 2000). The Census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1000 employees or more."

[60] U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued October 2000).

[61] U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513322 (issued October 2000). The Census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1000 employees or more."

previous calendar years.[62] For Block F, an additional classification for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years."[63] These standards defining "small entity" in the context of broadband PCS auctions have been approved by the SBA.[64] No small businesses, within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.[65] On March 23, 1999, the Commission re-auctioned 347 C, D, E, and F Block licenses. There were 48 small business winning bidders. On January 26, 2001, the Commission completed the auction of 422 C and F Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in this auction, 29 qualified as "small" or "very small" businesses. Subsequent events, concerning Auction 305, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. In addition, we note that, as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. In addition, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated.

22. *Narrowband Personal Communications Services (PCS).* The Commission held an auction for Narrowband PCS licenses that commenced on July 25, 1994, and closed on July 29, 1994. A second auction commenced on October 26, 1994 and closed on November 8, 1994. For purposes of the first two Narrowband PCS auctions, "small businesses" were entities with average gross revenues for the prior three calendar years of $40 million or less.[66] Through these auctions, the Commission awarded a total of 41 licenses, 11 of which were obtained by four small businesses.[67] To ensure meaningful participation by small business entities in future auctions, the Commission adopted a two-tiered small business size standard in the *Narrowband PCS Second Report and Order*.[68] A "small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $40 million.[69] A "very small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $15

[62] *See Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, Report and Order, 11 FCC Rcd 7824 (1996); see also 47 C.F.R. § 24.720(b).

[63] *See Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap*, WT Docket No. 96-59, Report and Order, 11 FCC Rcd 7824 (1996).

[64] *See, e.g.*, *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fifth Report and Order, 9 FCC Rcd 5332 (1994).

[65] Broadband PCS, D, E and F Block Auction Closes (rel. Jan. 14, 1997); *see also Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licenses*, WT Docket No. 97-82, Second Report and Order, 12 FCC Rcd 16436 (1997).

[66] *Implementation of Section 309(j) of the Communications Act – Competitive Bidding Narrowband PCS*, Third Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 10 FCC Rcd 175, 196, para. 46 (1994).

[67] *See* "Announcing the High Bidders in the Auction of ten Nationwide Narrowband PCS Licenses, Winning Bids Total $617,006,674," Public Notice, PNWL 94-004 (released Aug. 2, 1994); "Announcing the High Bidders in the Auction of 30 Regional Narrowband PCS Licenses; Winning Bids Total $490,901,787," Public Notice, PNWL 94-27 (released Nov. 9, 1994).

[68] *Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS*, Second Report and Order and Second Further Notice of Proposed Rule Making, 15 FCC Rcd 10456, 10476, para. 40 (2000).

million.[70] The SBA has approved these small business size standards.[71] A third auction commenced on October 3, 2001 and closed on October 16, 2001. Here, five bidders won 317 (Metropolitan Trading Areas and nationwide) licenses.[72] Three of these claimed status as a small or very small entity and won 311 licenses.

23. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a definition of small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to "Cellular and Other Wireless Telecommunications" companies. This category provides that a small business is a wireless company employing no more than 1,500 persons.[73] According to the Census Bureau data for 1997, only twelve firms out of a total of 1,238 such firms that operated for the entire year in 1997, had 1,000 or more employees.[74] If this general ratio continues in the context of Phase I 220 MHz licensees, the Commission estimates that nearly all such licensees are small businesses under the SBA's small business standard.

24. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted a small business size standard for defining "small" and "very small" businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[75] This small business standard indicates that a "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[76] A "very small business" is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed $3 million for the preceding three years.[77] The SBA has approved these small size standards.[78] Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22,

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[69] *Id*.

[70] *Id*.

[71] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration (filed December 2, 1998).

[72] *See* "Narrowband PCS Auction Closes," Public Notice, 16 FCC Rcd 18663 (WTB 2001).

[73] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[74] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 513322 (October 2000).

[75] *Amendment of Part 90 of the Commission's Rules to Provide For the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, Third Report and Order, 12 FCC Rcd 10943, 11068-70, paras. 291-295 (1997).

[76] *Id.* at 11068, para. 291.

[77] *Id.*

[78] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration (filed January 6, 1998).

1998.[79] In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold.[80] Thirty-nine small businesses won 373 licenses in the first 220 MHz auction. A second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.[81] A third auction included four licenses: 2 BEA licenses and 2 EAG licenses in the 220 MHz Service. No small or very small business won any of these licenses.[82]

25. *Specialized Mobile Radio*. The Commission awards "small entity" bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than $15 million in each of the three previous calendar years.[83] The Commission awards "very small entity" bidding credits to firms that had revenues of no more than $3 million in each of the three previous calendar years.[84] The SBA has approved these small business size standards for the 900 MHz Service.[85] The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the $15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.[86] A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.[87]

26. *Common Carrier Paging.* The SBA has developed a small business size standard for wireless firms within the broad economic census categories of **"**Cellular and Other Wireless Telecommunications."[88] Under this SBA category, a wireless business is small if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 1997 show that there were 1,320 firms in this category, total, that operated for the entire year.[89] Of this total, 1,303 firms had employment

[79] *See generally* "220 MHz Service Auction Closes," Public Notice, 14 FCC Rcd 605 (WTB 1998).

[80] *See* "FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made," Public Notice, 14 FCC Rcd 1085 (WTB 1999).

[81] *See* "Phase II 220 MHz Service Spectrum Auction Closes," Public Notice, 14 FCC Rcd 11218 (WTB 1999).
[82] *See* "Multi-Radio Service Auction Closes," Public Notice, 17 FCC Rcd 1446 (WTB 2002).
[83] 47 C.F.R. § 90.814(b)(1).

[84] *Id*.

[85] *See* Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration (filed August 10, 1999). We note that, although a request was also sent to the SBA requesting approval for the small business size standard for 800 MHz, approval is still pending.

[86] *See* "Correction to Public Notice DA 96-586 'FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,'" Public Notice, 18 FCC Rcd 18367 (WTB 1996).

[87] *See* "Multi-Radio Service Auction Closes*," Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

[88] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[89] U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 5, Employment Size of Firms Subject to Federal Income Tax: 1997, NAICS code 513321 (issued October 2000).

of 999 or fewer employees, and an additional 17 firms had employment of 1,000 employees or more.[90] Thus, under this category and associated small business size standard, the great majority of firms can be considered small.

27. In the *Paging Second Report and Order*, the Commission adopted a size standard for "small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[91] A small business is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[92] The SBA has approved this definition.[93] An auction of Metropolitan Economic Area (MEA) licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold.[94] Fifty-seven companies claiming small business status won 440 licenses.[95] An auction of MEA and Economic Area (EA) licenses commenced on October 30, 2001, and closed on December 5, 2001. Of the 15,514 licenses auctioned, 5,323 were sold.[96] One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs commenced on May 13, 2003, and closed on May 28, 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.[97] Currently, there are approximately 74,000 Common Carrier Paging licenses. According to the most recent *Trends in Telephone Service,* 379 private and common carriers reported that they were engaged in the provision of either paging or "other mobile" services.[98] Of these, we estimate that 373 are small, under the SBA-approved small business size standard.[99] We estimate that the majority of common carrier paging providers would qualify as small entities under the SBA definition.

28. *700 MHz Guard Band Licenses.* In the *700 MHz Guard Band Order*, we adopted size standards for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[100] A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not

[90] *Id.* The Census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1000 employees or more."

[91] *Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems*, Second Report and Order, 12 FCC Rcd 2732, 2811-2812, paras. 178-181 (*Paging Second Report and Order*); *see also Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems*, Memorandum Opinion and Order on Reconsideration, 14 FCC Rcd 10030, 10085-10088, paras. 98-107 (1999).

[92] *Paging Second Report and Order*, 12 FCC Rcd at 2811, para. 179.

[93] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, from Aida Alvarez, Administrator, Small Business Administration (filed December 2, 1998).

[94] *See* "929 and 931 MHz Paging Auction Closes," Public Notice, 15 FCC Rcd 4858 (WTB 2000).

[95] *See id*.

[96] *See* "Lower and Upper Paging Band Auction Closes," Public Notice, 16 FCC Rcd 21821 (WTB 2002).

[97] *See id*.

[98] *Trends in Telephone Service* at Table 5.3.

[99] 13 C.F.R. § 121.201, NAICS code 517211.

[100] *See Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, Second Report and Order, 15 FCC Rcd 5299 (2000).

exceeding $40 million for the preceding three years.[101] Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[102] SBA approval of these definitions is not required.[103] An auction of 52 Major Economic Area (MEA) licenses commenced on September 6, 2000, and closed on September 21, 2000.[104] Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[105] *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.[106] A significant subset of the Rural Radiotelephone Service is the BETRS.[107] The Commission uses the SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity employing no more than 1,500 persons.[108] There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies adopted herein.

29. *Air-Ground Radiotelephone Service.* The Commission has not adopted a small business size standard specific to the Air-Ground Radiotelephone Service.[109] We will use SBA's small business size standard applicable to "Cellular and Other Wireless Telecommunications," *i.e.*, an entity employing no more than 1,500 persons.[110] There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA small business size standard.

30. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category "Cellular and Other Telecommunications," which is 1,500 or fewer employees.[111] Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately

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[101] *See Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, Second Report and Order, 15 FCC Rcd 5299, 5343, para. 108 (2000).

[102] *See id*.

[103] *See id*. at 5343, para. 108 n.246 (for the 746-764 MHz and 776-794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

[104] *See* "700 MHz Guard Bands Auction Closes: Winning Bidders Announced," Public Notice, 15 FCC Rcd 18026 (2000).

[105] *See* "700 MHz Guard Bands Auction Closes: Winning Bidders Announced," Public Notice, 16 FCC Rcd 4590 (WTB 2001).

[106] The service is defined in section 22.99 of the Commission's Rules, 47 C.F.R. § 22.99.

[107] BETRS is defined in sections 22.757 and 22.759 of the Commission's Rules, 47 C.F.R. §§ 22.757 and 22.759.

[108] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in Oct. 2002).

[109] The service is defined in § 22.99 of the Commission's Rules, 47 C.F.R. § 22.99.

[110] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[111] *Id*.

712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a "small" business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed $15 million dollars. In addition, a "very small" business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed $3 million dollars.[112] There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as "small" businesses under the above special small business size standards.

31. *Fixed Microwave Services.* Fixed microwave services include common carrier,[113] private operational-fixed,[114] and broadcast auxiliary radio services.[115] At present, there are approximately 22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small business specifically with respect to fixed microwave services. For purposes of this analysis, the Commission uses the SBA small business size standard for the category "Cellular and Other Telecommunications," which is 1,500 or fewer employees.[116] The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 22,015 common carrier fixed licensees and up to 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies proposed herein. We noted, however, that the common carrier microwave fixed licensee category includes some large entities.

32. *Offshore Radiotelephone Service.* This service operates on several ultra high frequencies (UHF) television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.[117] There are presently approximately 55 licensees in this service. We are unable to estimate at this time the number of licensees that would qualify as small under the SBA's small

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[112] *Amendment of the Commission's Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853 (1998).

[113] *See* 47 C.F.R. §§ 101 *et. seq.* (formerly, Part 21 of the Commission's Rules) for common carrier fixed microwave services (except Multipoint Distribution Service).

[114] Persons eligible under parts 80 and 90 of the Commission's Rules can use Private Operational-Fixed Microwave services. *See* 47 C.F.R. Parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

[115] Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. *See* 47 C.F.R. Part 74. This service is available to licensees of broadcast stations and to broadcast and cable network entities. Broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile television pickups, which relay signals from a remote location back to the studio.

[116] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[117] This service is governed by Subpart I of Part 22 of the Commission's Rules. *See* 47 C.F.R. §§ 22.1001-22.1037.

business size standard for "Cellular and Other Wireless Telecommunications" services.[118] Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.[119]

33. *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.[120] The SBA has approved these definitions.[121] The Commission auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity. An auction for one license in the 1670-1674 MHz band commenced on April 30, 2003 and closed the same day. One license was awarded. The winning bidder was not a small entity.

34. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of $40 million or less in the three previous calendar years.[122] An additional size standard for "very small business" is: an entity that, together with affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[123] The SBA has approved these small business size standards.[124] The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by the rules and polices proposed herein.

35. *Multipoint Distribution Service, Multichannel Multipoint Distribution Service, and Instructional Television Fixed Service.* Multichannel Multipoint Distribution Service (MMDS) systems, often referred to as "wireless cable," transmit video programming to subscribers using the microwave frequencies of the Multipoint Distribution Service (MDS) and Instructional Television Fixed Service (ITFS).[125] In

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[118] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[119] *Id.*

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

[121] *See* Letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration (filed December 2, 1998).

[122] *See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, Report and Order, 12 FCC Rcd 18600 (1997), 63 Fed.Reg. 6079 (Feb. 6, 1998).

[123] *Id.*

[124] *See* Letter to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998) (VoIP); Letter to Margaret Wiener, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Hector Barreto, Administrator, Small Business Administration (filed January 18, 2002).

[125] *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995) (*MDS Auction R&O*).

connection with the 1996 MDS auction, the Commission defined "small business" as an entity that, together with its affiliates, has average gross annual revenues that are not more than $40 million for the preceding three calendar years.[126] The SBA has approved of this standard.[127] The MDS auction resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs).[128] Of the 67 auction winners, 61 claimed status as a small business. At this time, we estimate that of the 61 small business MDS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent MDS licensees that have gross revenues that are not more than $40 million and are thus considered small entities.[129]

36. In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution,[130] which includes all such companies generating $12.5 million or less in annual receipts.[131] According to Census Bureau data for 1997, there were a total of 1,311 firms in this category, total, that had operated for the entire year.[132] Of this total, 1,180 firms had annual receipts of under $10 million, and an additional 52 firms had receipts of $10 million or more but less than $25 million.[133] Consequently, we estimate that the majority of providers in this service category are small businesses that may be affected by the proposed rules and policies.

37. Finally, while SBA approval for a Commission-defined small business size standard applicable to ITFS is pending, educational institutions are included in this analysis as small entities.[134] There are currently 2,032 ITFS licensees, and all but 100 of these licenses are held by educational institutions. Thus, we tentatively conclude that at least 1,932 ITFS licensees are small businesses.

38. *Local Multipoint Distribution Service.* Local Multipoint Distribution Service (LMDS) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.[135] The auction of the 986 Local Multipoint Distribution Service (LMDS) licenses began on February 18, 1998 and closed on March 25, 1998. The Commission established a small

[126] 47 C.F.R. § 21.961(b)(1).

[127] *See* Letter to Margaret Wiener, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Bureau, from Gary Jackson, Assistant Administrator for Size Standards, Small Business Administration (filed March 20, 2003) (noting approval of $40 million size standard for MDS auction).

[128] Basic Trading Areas (BTAs) were designed by Rand McNally and are the geographic areas by which MDS was auctioned and authorized. *See MDS Auction R&O*, 10 FCC Rcd at 9608, para. 34.

[129] 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard for "other telecommunications" (annual receipts of $12.5 million or less). *See* 13 C.F.R. § 121.201, NAICS code 517910.

[130] 13 C.F.R. § 121.201, NAICS code 517510.

[131] *Id.*

[132] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 4 (issued October 2000).

[133] *Id.*

[134] In addition, the term "small entity" under SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on ITFS licensees.

business size standard for LMDS licenses as an entity that has average gross revenues of less than $40 million in the three previous calendar years.[136] An additional small business size standard for "very small business" was added as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[137] The SBA has approved these small business size standards in the context of LMDS auctions.[138] There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small business winners that won 119 licenses.

39. *218-219 MHz Service.* The first auction of 218-219 MHz (previously referred to as the Interactive and Video Data Service or IVDS) spectrum resulted in 178 entities winning licenses for 594 Metropolitan Statistical Areas (MSAs).[139] Of the 594 licenses, 567 were won by 167 entities qualifying as a small business. For that auction, we defined a small business as an entity that, together with its affiliates, has no more than a $6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than $2 million in annual profits each year for the previous two years.[140] In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we defined a small business as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not exceeding $15 million for the preceding three years.[141] A very small business is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not exceeding $3 million for the preceding three years.[142] The SBA has approved of these definitions.[143] At this time, we cannot estimate the number of licenses that will be won by entities qualifying as small or very small businesses under our rules in future auctions of 218-219 MHz spectrum. Given the success of small businesses in the previous auction, and the prevalence of small businesses in the subscription television services and message communications industries, we assume for purposes of this analysis that in future auctions, many, and perhaps all, of the licenses may be awarded to small businesses.

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[135] *See Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making, 12 FCC Rcd 12545, 12689-90, para. 348 (1997).

[136] *See id*.

[137] *See id*.

[138] *See* Letter to Dan Phythyon, Chief, Wireless Telecommunications Bureau, FCC, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998).

[139] *See* "Interactive Video and Data Service (IVDS) Applications Accepted for Filing," Public Notice, 9 FCC Rcd 6227 (1994).

[140] *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

[141] *Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999).

[142] *Id.*

[143] *See* Letter to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration (filed January 6, 1998).

40. *Incumbent 24 GHz Licensees.* This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The applicable SBA small business size standard is that of "Cellular and Other Wireless Telecommunications" companies. This category provides that such a company is small if it employs no more than 1,500 persons.[144] According to Census Bureau data for 1997, there were 977 firms in this category, total, that operated for the entire year.[145] Of this total, 965 firms had employment of 999 or fewer employees, and an additional 12 firms had employment of 1,000 employees or more.[146] Thus, under this size standard, the great majority of firms can be considered small. These broader Census data notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent[147] and TRW, Inc. It is our understanding that Teligent and its related companies have less than 1,500 employees, though this may change in the future. TRW is not a small entity. Thus, only one incumbent licensee in the 24 GHz band is a small business entity.

41. *Future 24 GHz Licensees.* With respect to new applicants in the 24 GHz band, we have defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the three preceding years not exceeding $15 million.[148] "Very small business" in the 24 GHz band is defined as an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding $3 million for the preceding three years.[149] The SBA has approved these definitions.[150] The Commission will not know how many licensees will be small or very small businesses until the auction, if required, is held.

42. *Internet Service Providers.* While ISPs are only indirectly affected by our present actions, and ISPs are therefore not formally included within this present FRFA, we have addressed them informally to create a fuller record and to recognize their participation in this proceeding. The SBA has developed a small business size standard for ISPs. This category comprises establishments "primarily engaged in providing direct access through telecommunications networks to computer-held information compiled or published by others."[151] Under the SBA size standard, such a business is small if it has average annual receipts of $21 million or less.[152] According to Census Bureau data for 1997, there were 2,751 firms in

[144] 13 C.F.R. § 121.201, NAICS code 513322 (changed to 517212 in October 2002).

[145] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Employment Size of Firms Subject to Federal Income Tax: 1997," Table 5, NAICS code 513322 (issued October 2000).

[146] *Id.* The Census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is "Firms with 1,000 employees or more."

[147] Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

[148] *Amendments to Parts 1, 2, 87 and 101 of the Commission's Rules To License Fixed Services at 24 GHz*, Report and Order, 15 FCC Rcd 16934, 16967, para. 77 (2000) (24 GHz Report and Order); *see also* 47 C.F.R. § 101.538(a)(2).

[149] *24 GHz Report and Order*, 15 FCC Rcd at 16967, para. 77; *see also* 47 C.F.R. § 101.538(a)(1).

[150] *See* Letter to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Gary M. Jackson, Assistant Administrator, Small Business Administration (filed July 28, 2000).

[151] Office of Management and Budget, North American Industry Classification System, page 515 (1997). NAICS code 514191, "On-Line Information Services" (changed to current name and to code 518111 in October 2002).

[152] 13 C.F.R. § 121.201, NAICS code 518111.

this category that operated for the entire year.[153] Of these, 2,659 firms had annual receipts of under $10 million, and an additional 67 firms had receipts of between $10 million and $24,999,999.[154] Thus, under this size standard, the great majority of firms can be considered small entities.

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

43. Pursuant to sections 251(c) and (d) of the Act, incumbent LECs, including those that qualify as small entities, are required to provide nondiscriminatory access to UNEs to requesting telecommunications carriers in certain circumstances.[155] In this Order, we modify our unbundling rules, as described above. Specifically, we conclude, except as set forth in other Commission orders, that requesting carriers: (1) shall be afforded unbundled access to DS1-capacity dedicated transport except on routes connecting a pair of wire centers, where both wire centers contain at least four fiber-based collocators or at least 38,000 business access lines; (2) shall be afforded unbundled access to DS3-capacity dedicated transport except on routes connecting a pair of wire centers, each of which contains at least three fiber-based collocators or at least 24,000 business lines; (3) shall be afforded unbundled access to dark fiber dedicated transport except on routes connecting a pair of wire centers, each of which contains at least three fiber-based collocators or at least 24,000 business lines; (4) shall not be afforded unbundled access to entrance facilities in any instance; (5) shall be afforded unbundled access to DS1-capacity loops except in any building within the service area of wire centers with 60,000 or more business lines and 4 or more fiber-based collocators; (6) shall be afforded unbundled access to DS3-capacity loops except in any building within the service area of wire centers with 38,000 or more business lines and 4 or more fiber-based collocators; (7) shall not be afforded unbundled access to dark fiber loops in any instance; and (8) shall not be afforded unbundled access to mass market local circuit switching in any instance.[156] We also set forth specific transition plans to govern competitive carriers' migration from UNEs to alternative arrangements, where necessary. The various compliance requirements contained in this Order will require the use of engineering, technical, operational, accounting, billing, and legal skills. The carriers that are affected by these requirements already possess these skills.

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

44. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[157]

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[153] U.S. Census Bureau, 1997 Economic Census, Subject Series: "Information," Table 4, Receipts Size of Firms Subject to Federal Income Tax: 1997, NAICS code 514191 (issued October 2000).

[154] *Id*.

[155] 47 U.S.C. § 251(c), (d).

[156] *See supra* Parts V, VI, and VII.

[157] 5 U.S.C. § 603(c)(1) – (c)(4).

45. In this Order, we adopt rules implementing section 251(c)(3) of the Communications Act, which requires that incumbent LECs make elements of their networks available on an unbundled basis to new entrants at cost-based rates, pursuant to standards set out in section 251(d)(2). As noted above, these rules respond to the D.C. Circuit's decision in *USTA II*.[158] Particularly, we focus on those items that the court remanded for our consideration.[159] Our actions will affect both telecommunications carriers that request access to UNEs and the incumbent LECs that must provide access to UNEs under section 251(c)(3).

46. In arriving at the conclusions described above, the Commission considered various alternatives, which it rejected or accepted for the reasons set forth in the body of this Order, and made certain changes to the rules to reduce undue regulatory burdens, consistent with the Communications Act and with guidance received from the courts. These efforts to reduce regulatory burden will affect both large and small carriers. The significant alternatives that commenters discussed and that we considered are as follows.

47. *Reasonably Efficient Competitor.* In this Order, we clarify that, in assessing impairment pursuant to the standard set forth in the *Triennial Review Order*, we presume a reasonably efficient competitor.[160] Specifically, we presume that a requesting carrier will use reasonably efficient technology and we consider *all* the revenue opportunities that such a competitor can reasonably expect to gain over the facilities, taking into account limitations on entrants' ability to provide multiple services. This clarification, we conclude, will encourage facilities-based competitors, including small businesses, to deploy efficient technologies so as to maximize quality of service and minimize costs.[161] Thus, while we recognize that our approach might prevent inefficient small entities from using UNEs to compete (*i.e.*, in those cases where a reasonably efficient small entity would not require access to UNEs), we believe that the alternative approach, which would reward inefficiency and produce overbroad unbundling rules, would be inconsistent with the Communications Act.

48. *Service Considerations.* In response to the *USTA II* court's guidance, we revise our approach to unbundling for the exclusive provision of long-distance and mobile wireless services.[162] Specifically, we abandon the "qualifying services" approach set forth in the *Triennial Review Order*, which limited the section 251(d)(2) inquiry to a subset of telecommunications services and which was rejected by the D.C. Circuit. Based on the record, the court's guidance, and the Commission's previous findings, we find that the mobile wireless services market and long-distance services market are markets where competition has evolved without access to UNEs. We have therefore determined, pursuant to our "at a minimum" authority to consider factors other than impairment when assessing unbundling obligations, to prohibit access to UNEs for exclusive provision of service to those markets. We also considered, but declined to adopt, an approach also barring use of UNEs for provision of other services specified in the Act – namely, telephone exchange service and exchange access service, the two services LECs provide. We recognize that the use restrictions adopted in this Order may prevent small providers of mobile wireless and long distance service from using UNEs to compete. We conclude, however, that given the court's guidance, and the generally competitive state of the mobile wireless and long-distance markets, the benefits associated with unbundling would not be commensurate with the costs imposed on incumbent

[158] *USTA II*, 359 F.3d 554 (D.C. Cir. 2004).

[159] *See supra* para. 19.

[160] *See supra* Part IV.A.

[161] *Id.*

[162] *See supra* Part IV.B.

LECs, and would potentially depress deployment of new facilities that would ultimately redound to the benefit of all carriers and end-user customers of every size.

49. *Reasonable Inferences.* In this Order, we adopt an approach that relies, to a far greater degree than our previous analyses, on the inferences that can be drawn from one market regarding the prospects for competitive entry in another.[163] As described in detail in the Order, we rely, where possible, on correlations between business line counts and/or fiber collocations in a particular wire center, on the one hand, and the deployment of competitive dedicated transport or high-capacity loops, on the other. We have considered and rejected the alternative of relying only actual deployment in assessing unbundling obligations. As described more fully in the Order, we have concluded that the "actual deployment" approach would be impracticable to administer, would be inconsistent with the *USTA II* decision, and would overstate requesting carriers' UNE needs.

50. *Relevance of Tariffed Alternatives*. In this Order, we address the relevance of special access tariffed alternatives to the unbundling inquiry in the local exchange markets where we find UNE access to be appropriate. We find that statutory concerns, administrability concerns, and concerns about anticompetitive price squeeze preclude a rule foreclosing UNE access when carriers are able to compete using special access or other tariffed alternatives.[164] We also find that a competitor's current use of special access does not, on its own, demonstrate that that carrier is not impaired without access to UNEs. We note that to reach a different result would be inconsistent with the Act's text and its interpretation by various courts, would be impracticable, and would create a significant risk of abuse by incumbent LECs.[165] This decision is consistent with the interests of many small businesses, who claim, for example, that they cannot compete against incumbent LECs in the local exchange markets using tariffed alternatives to UNEs.[166]

51. *Dedicated Transport.* In this Order, we limit unbundled access to dedicated transport to those routes on which competitive deployment at a particular capacity level is not economic.[167] Specifically, we find that competing carriers are impaired without access to DS1 transport except on routes connecting a pair of wire centers, where both wire centers contain at least four fiber-based collocators or at least 38,000 business access lines, and that competing carriers are impaired without access to DS3 or dark fiber transport except on routes connecting a pair of wire centers, each of which contains at least three fiber-based collocators or at least 24,000 business lines. Finally, we find that competing carriers are not impaired without access to entrance facilities connecting an incumbent LEC's network with a competitive LEC's network in any instance.

52. In reaching our decisions concerning dedicated transport, we considered the comments by small competitive LECs, which generally sought broader unbundled access to dedicated transport links.[168] We rejected these arguments, finding that they failed to account adequately for the prospects of competitive deployment and for the advantages held out by such deployment, where feasible, for consumers and

[163] *See supra* Part IV.C.

[164] *See supra* Part IV.D.

[165] *See id*.

[166] *See e.g.*, SBA Comments at 5; SouthEast Comments at 5-10 (quantifying the cost of loops and transport obtained through special access tariffs); Covad Comments at 74 (stating special access prices that the incumbent LECs charge for DS1 and DS3 transport prohibits competition); Mountain Telecommunications Comments at 5.

[167] *See supra* Part V.

[168] *See, e.g.*, SouthEast Comments at 5.

carriers alike. Similarly, we also rejected a "matched pair" approach that would require the existence of actual competitive transport links (whether direct or indirect) before relieving an incumbent's unbundling obligations, because that approach failed to draw reasonable inferences regarding potential deployment. Alternatively, we also considered and rejected arguments that we should employ higher business line and fiber-based collocator thresholds in assessing impairment. While these higher thresholds might have minimized unbundling obligations and thus benefited small (and large) incumbent LECs, we believed that higher thresholds would *understate* the need for unbundling, and would prohibit UNE access on routes where competitive deployment was not economic. Finally, we considered but rejected alternative proposals to adopt conclusions regarding transport that would apply to entire MSAs. A single MSA can encompass urban, suburban, and rural areas, each of which presents different challenges to competitive LECs seeking to self-deploy facilities. Thus, while we recognize that MSA-wide determinations might confer administrability-related efficiencies on small entities, we believe that our more specific route-based approach is also easily administered, and permits a greater degree of nuance in assessing unbundling obligations.

53. *High-Capacity Loops.* We find that competitive LECs are impaired without access to DS3-capacity loops except in any building within the service area of a wire center containing 38,000 or more business lines and 4 or more fiber-based collocators.[169] Furthermore, competitive LECs are impaired without access to DS1-capacity loops except in any building within the service area of a wire center containing 60,000 or more business lines and 4 or more fiber-based collocators. Finally, we determine that competitive LECs are not impaired without access to dark fiber loops in any instance.

54. As with dedicated transport, we have considered and rejected proposals to adopt either more restrictive or less restrictive unbundling rules, which we recognize might benefit small incumbent LECs or small competitive LECs, respectively. For reasons explained in the Order, we believe our choice of thresholds properly assesses the prospects for competitive duplication of loops at the DS1 and DS3 capacity, incorporating reasonable inferences regarding potential deployment of such facilities from the areas in which competitors actually have deployed high-capacity loops. We have also considered, and rejected as unadministrable, a building-specific approach to loop impairment. While the building-specific approach might allow more nuance than the approach we have chosen, we believe that it would be impracticable to administer, and would invite protracted conflict between carriers as to whether or not unbundling was permitted in each particular building. Such disputes would benefit no party, and might in fact impose disproportionate costs on small incumbent LECs and competitive LECs. Finally, we have considered, and rejected, proposals that we evaluate impairment for high-capacity loops not by wire center, but by broader geographic areas, such as MSAs. As noted above, a single MSA can encompass wide areas presenting a range of topographies and customer densities, and thus a variety of distinct circumstances with regard to the prospects for competitive deployment. As explained in the Order, we believe that our wire-center approach to evaluating impairment with regard to high-capacity loops strikes the proper balance between administrability and case-specificity.

55. *Mass Market Local Circuit Switching*. We find that incumbent LECs have no obligation to provide competitive LECs with unbundled access to mass market local circuit switching.[170] Many commenters suggested a variety of alternatives to this rule, several of which were intended to mitigate the rule's effect on small competitive LECs. Specifically, we considered and rejected arguments that small competitive LECs are impaired in specific circumstances due to unique characteristics of the particular customer markets or geographic markets they seek to serve or because of the competitive carrier's size.[171] For instance, some commenters argued that competitive LECs are uniquely impaired when seeking to

[169] *See supra* Part VI.

[170] *See supra* Part. VII.

serve rural areas.[172] We concluded that these commenters' claims were at odds with our impairment standard, which evaluates impairment based on a "reasonably efficient competitor," not based on the individualized circumstances of a particular requesting carrier, and "consider[s] all the revenue opportunities that such a competitor can reasonably expect to gain over the facilities, from providing all possible services that an entrant could reasonably expect to sell."[173] Moreover, to the extent that small competitive LECs are harmed by our decision not to permit unbundled access to mass market local circuit switching, we believe that the attendant increase in incentives to deploy facilities justify a bar on unbundling even where the competitive carrier might be "impaired," and thus believe it is appropriate to invoke our "at a minimum" authority to prohibit unbundling in these cases. Although we recognize that some small carriers might find it more difficult to compete without unbundled access to switching, we believe that the corresponding increase in deployment incentives – for incumbent LECs and competitors alike – justifies our approach here.

56. We have also considered comments that ask the Commission to minimize the impact of our decision on small businesses by imposing particular requirements regarding the incumbent LEC hot cut process.[174] However, as explained above, the record demonstrates that the incumbent LECs from whom competitive carriers are receiving unbundled switching in almost all cases – *i.e.*, the BOCs – have a record of providing hot cuts on a timely basis and have made significant *improvements* in their hot cut processes that should enable them to perform larger volumes of hot cuts to the extent necessary.[175] We believe that the improvements in the hot cut process will ultimately benefit small businesses and should ensure a smooth transition away from mass market switching UNEs.

57. *Transition Plans.* The Order also sets out transition plans to govern the migration away from UNEs where a particular element is no longer available on an unbundled basis. We have considered various comments indicating that many small businesses have built their business plans on the basis of continued access to UNEs and have worked to ensure that the transition plans will give competing carriers a sufficient opportunity to transition to alternative facilities or arrangements.[176] This alternative

[171] *See, e.g.*, Dialog Comments at 2-4 (alleging that competitive LECs are uniquely impaired when seeking to serve rural areas); SouthEast Comments at 3-5 (same); USA Telephone Comments at 3-4 (same); Pennsylvania Consumer Advocate Comments at 13 (same); Dialog Comments at 7-8 (alleging that competitive LECs are uniquely impaired when seeking to serve residential customers); Momentum Comments at 5-14 (same); Ohio Consumers' Council Comments at 12-18 (same); American Public Communications Council *et al*. Comments at 23-26 (alleging that competitive LECs are uniquely impaired when seeking to serve payphone service providers); WorldNet Comments (alleging that competitive LECs are uniquely impaired in Puerto Rico); SBA Comments at 5-7 (alleging that small competitive LECs would be particularly affected by the elimination of UNE-P); National ALEC Association Reply at 6 (same); *see also* Letter from Karen Kerrigan, President and CEO of Small Business Entrepreneurship Council, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 04-313 (filed Nov. 30, 2004) (urging the Commission to preserve access to dark fiber and high-capacity loops and transport, and providing a clear migration path for carriers using UNE-P to serve small business consumers).

[172] Dialog Comments at 2-4.

[173] *See supra* para. 24.

[174] *See supra* Part VII.C.2. For instance, SBA's request that, if switching were eliminated from the list of UNEs, the Commission should minimize the impact on small businesses by "tightening the rules involving hot cuts." *See* SBC Comments at 6; Dialog Comments at 8 (a finding of non-impairment must be conditioned on continuing performance of hot cuts); CompTel ASCENT Comments at 44 (arguing that hot cut problems justify a finding of non-impairment).

[175] *See supra* paras. 210-21.

[176] *See, e.g.*, SBA Comments at 6-7.

represents a reasonable accommodation for small entities and others, which we believe will ultimately result in an orderly and efficient transition. Therefore, as set forth in the Order, we have adopted plans to retain unbundled access to dark fiber loops and dark fiber dedicated transport for 18 months, at rates somewhat higher than those at which a carrier had access to those UNEs on June 15, 2004, and to retain unbundled access to DS1 loops, DS3 loops, DS1 dedicated transport, DS3 dedicated transport, and mass market local circuit switching for 12 months, again at rates somewhat higher than those at which a carrier had access to those UNEs on June 15, 2004. We believe that these plans offer sufficient time in which a competitive LEC can determine which specific arrangements must be transitioned and establish alternative means of serving customers currently served using those arrangements. We therefore reject proposals that we adopt longer transitions,[177] which we believe would be unnecessary and therefore inappropriate in the face of a Commission declining to unbundle the element at issue.

F. Report to Congress

58. The Commission will send a copy of the Order on Remand, including this FRFA, in a report to be sent to Congress and the Comptroller General pursuant to the Congressional Review Act.[178] In addition, the Commission will send a copy of the Order on Remand, including this FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. In addition, the Order on Remand, including this FRFA – or summaries thereof – will be published in the Federal Register.[179]

[177] Commenters suggest various transition plans. For instance, Dialog requests that UNE-P be available for three years for those competitive LECs that are small businesses, as defined by the SBA. Dialog Comments at 12. Others, such as Michigan Based Coalition recommended that, "once a threshold condition is reached, affected [competitive LECs] would have 12 months to transition from the UNE model prescribed by the Act to alternative methods." Michigan Based CLEC Coalition Comments at 8; *see also*, *e.g.*, SBA Comments at 6; PACE *et al*. Dec. 6, 2004 *Ex Parte* Letter at 4-5.

[178] 5 U.S.C. § 801(a)(1)(A).

[179] *Id.* § 604(b).

SEPARATE STATEMENT OF
CHAIRMAN MICHAEL K. POWELL

RE: Unbundled Access to Network Elements (WC Docket No. 04-313); Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers (CC Docket No. 01-338)

Today's decision crafts a clear, workable set of rules that preserves access to the incumbent's network where there is, or likely will be no other viable way to compete. The rules have also been carefully designed to pass judicial muster, for I hope we have learned that illegal rules, no matter their other merits, are no rules at all. For eight years, the effort to establish viable local unbundling rules has been a litigation roller coaster. Regrettably, years of fierce battles to bend the rules entirely toward one sector or another without proper respect for the legal constraints have contributed to a prolonged period of uncertainty and market stagnation.

This item decidedly does not attempt to make all sides happy. Consequently, one will undoubtedly hear the tortured hand-wringing by incumbents that they are wrongly being forced to subsidize their competitors. They have a legal duty to provide access under limited conditions and they do protest too much in arguing for the end of vast portions of their unbundling requirements. Conversely, one can expect to hear dire predictions of competition's demise from those who wanted more from this item. Time will show this will not be so. Business models may change, but competition and choice for consumers in the information age will continue to grow and thrive.

After repeated defeats in court, the Commission has heeded the call to apply a meaningful impairment analysis to switching. Therefore, while commercial agreements can be established to offer UNE-P services, such services are no longer legally compelled. We recognize, however, that during the years of wrangling over the lawfulness of UNE-P, companies have sold phone service to significant numbers of consumers using this now thoroughly legally discredited business approach. While we cannot justify the continuation of this approach, we see the need and obligation to minimize the impact on consumers by providing a smooth transition of these customers to other alternatives. To accomplish this, we have adopted a significantly longer transition than first proposed. In addition to the six months already provided by our Interim Order, we will extend the transition into early 2006. We are confident this will mean less disruption for customers and provide time for quickly emerging alternatives—not the least of which include cable telephony, wireless and VoIP—to root in the market.

Facilities competitors are favored under the Act and Commission policy and we have attempted to permit wide unbundling for the key elements of loops and transport, where there is clear and demonstrable impairment. Recall that two years ago all five Commissioners stood together in requiring substantial unbundling of virtually all loops and transport. The Court rejected that effort. So today we have tried again to satisfy the court, while preserving access to incumbent's networks outside the most competitive and densest business districts. Incumbents made forceful attempts to remove the majority of these elements, but the record and our analysis demonstrated that competitors still depended significantly on them in the overwhelming majority of markets and, thus, we have required unbundling in those circumstances. We did not just check off the CLEC holiday list, however, and were careful to draw the lines tightly, understanding the rigors of the statutory impairment test and the inevitable need to withstand judicial challenge. Where loops or transport are removed, we also provide substantial transition periods to avoid disruption.

Over the course of the past few months, the five commissioners have worked very hard together to craft a solution that all of the offices could support. Ultimately, although my colleagues' insights and proposals improved the final result, we could not bridge the gap to reach a unanimous result that I felt could pass judicial muster. Finally I would be remiss if I did not praise the extraordinary efforts and leadership of the Wireline Competition Bureau and our Office of General Counsel, particularly Jeff Carlisle, Austin Sclick, Michelle Carey, Tom Navin, Russ Hanser and Jeremy Miller. They have been tireless advocates for a rigorous decision that advances the public interest. We all owe them a debt of gratitude.

In 1996, no one could have guessed that nearly a decade later the FCC would be on its fourth attempt to develop local competition rules that are lawful. We hope to end that here and now, for the market cannot possibly continue another day plagued by an ever-shifting regulatory foundation. We can only hope that the fourth time is the charm.

STATEMENT OF
COMMISSIONER KATHLEEN Q. ABERNATHY

Re: Unbundled Access to Network Elements; Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, WC Docket No. 04-313, CC Docket No. 01-338, Order on Remand

Section 251 of the Communications Act directs the Commission to make unbundled network elements available to competitors, but it provides little guidance as to *which* elements should be made available in *which* markets. Three times in the past eight years the Commission has endeavored to answer those bedeviling questions, and three times our rules have been rejected as overbroad by the courts of appeals (including by the U.S. Supreme Court). Regardless of one's policy views regarding the appropriate degree of mandatory unbundling, we must put an end to the debilitating cycle of court reversals and the resultant marketplace uncertainty. As a veteran of the competitive sector, I have great sympathy for carriers that crafted business plans in compliance with our rules, only to have the rug later pulled out from under them. The only responsible solution to this problem is to adopt rules that comply faithfully with the decisions of the D.C. Circuit and the Supreme Court, so that we can *finally* move forward with stable rules in place.

Notwithstanding that non-negotiable constraint on our discretion, the Commission worked hard to find ways to make transmission facilities available wherever true bottlenecks exist, consistent with the court's guidance. Building on our earlier decisions to eliminate unbundling obligations for most broadband facilities and optical-capacity transport and loop facilities, we have phased out the unbundling of circuit switching and significantly curtailed unbundling of higher-capacity (DS-3 and dark fiber) transmission facilities. These decisions recognize, as the court directed, that the costs of unbundling outweigh its benefits in markets where high revenue potentials have already led to significant competition or create a strong potential for it to develop. At the other end of the spectrum, we have established an obligation to unbundle the vast majority of DS-1 loop facilities, and significant amounts of DS-1 transport, in light of the many factors that typically make duplication of such facilities uneconomic. In short, while the issues are extremely complex and defy facile solutions, the Order we are adopting succeeds in promoting facilities-based competition while faithfully complying with judicial mandates.

Where I part ways with my dissenting colleagues is my unwillingness to vote for proposals — such as nationwide impairment findings or tests that focus exclusively on actual competition, to the complete exclusion of potential competition — that are flatly inconsistent with the D.C. Circuit's decision in *USTA II*. That decision is unquestionably the law of the land, and we are duty-bound to adhere to it. Were it not for past overreaching, the D.C. Circuit in all likelihood would have accorded us greater deference and also refrained from *vacating* (as opposed to merely remanding) our unbundling rules. In any event, it would be a pyrrhic victory for competitive carriers if the Commission at this stage were to reinstitute unbundling frameworks that have already been rejected and cannot be sustained on appeal. The ensuing disruption and dislocation that would result — particularly if the court did not permit a further freeze on unbundling requirements that are vacated once again — would prove crippling to the competitive industry. I am confident that this Order on Remand, by contrast, can serve as the blueprint for sustainable facilities-based competition, and, in turn, a high degree of innovation, choice, and other consumer benefits.

DISSENTING STATEMENT OF
COMMISSIONER MICHAEL J. COPPS

Re: *Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand
(WC Docket No. 04-313, CC Docket No. 01-338)

We are living in a new world when it comes to wireline competition. It is not a world of my making or my choosing, and I am deeply troubled by the conviction that this new world will be characterized by dramatic changes that will negatively impact American consumers. In decision after decision over the past three years, this Commission has taken actions curbing competition and limiting consumer choices, in the process straying far from the paradigms of competition laid out in the Telecommunications Act of 1996.

Our challenge today is to craft rules that will be acceptable to the courts and true to our statutory directives. I entered this remand proceeding hopeful that we could reach a compromise that would ensure some future for competition among wireline service providers and to provide a decent future for facilities-based carriers. We have had a long and serious dialogue over this item, extending through most of the night and right into today. I appreciate my colleagues' willingness to engage in this discussion and to make the effort to achieve consensus. Unfortunately, in the final analysis, consensus eluded us. I thought we were getting close, but we couldn't cross the finish line. I cannot support the decision that resulted.

What we have in front of us effectively dismantles wireline competition. Brick by brick, this process has been underway for some time. But today's Order accomplishes the same feat with all the grace and finality of a wrecking ball. No amount of rhetoric about judicially sustainable rules and economically efficient competitors can hide the blockbuster job this Commission has done on competition. During its tenure, the largest long distance carriers have abandoned the residential market. And as a result of today's decision, other carriers will follow suit. In their wake we will face bankruptcies, job losses and customer outages. Billions of dollars of investment capital will be stranded. And down the road consumers will face less competition, higher rates and fewer service choices.

After having abandoned residential competition earlier, today the majority also hangs up on small business consumers. Small business likes competition. It has voted with its feet for competition. In fact, the Small Business Administration tells us that in metropolitan areas competitive carriers serve 29 percent of small businesses. The inroads competitive carriers have made in this community are important, because small business is the engine of our economy. Small businesses generate between two-thirds and three-quarters of all new jobs in this country. They represent over 90 percent of employers and they produce over half of the nation's private sector output. The savings they enjoy from competitive telecommunications services go straight to the bottom line. But the majority's action today pulls the bottom out from under small business competition. It places restrictions on access to high-capacity loop and transport facilities that are vital for carriers serving small businesses. It imposes economically unsound tests. In short, it burns the bridges competitive carriers have made in serving the small business community.

For a Commission that has laced its decisions with praise for facilities-based competition, today's action is a funny way of showing its continued support. As a result of this decision there will be less competition, less choice and higher rates. The people who pay America's phone bills deserve better. I dissent.

Some would have us believe that this is the road we have to travel in the wake of court decisions. Yet it is this Commission that refused to seek review of the very court decisions they now claim constrain us.

Though I do not join this decision today, I wish to thank the Commission staff for their hard work on this item. This proceeding—and its predecessor—have not been easy. But throughout the Bureau has been helpful, candid and generous with their time. I am grateful for their devotion to the task at hand and hope that there is some well-deserved time for rest and relaxation in the weeks ahead.

DISSENTING STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN

Re: Unbundled Access to Network Elements, WC Docket No. 04-313; Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338, FCC 04-290.

With this Order, the Commission officially cuts the cord on the local competition provisions of the Telecommunications Act of 1996, the companies and investors which sought to deliver on the promise of the Act, and the American consumers to whom that promise was made. By fundamentally undermining Congress's vision of competition, the Commission chooses the path of higher rates and fewer choices for both residential consumers and small businesses.

By not defending the Commission's prior decision before the Supreme Court, the majority placed itself in a box, unnecessarily limiting its own ability to promote competition. As the majority now seeks to bury burgeoning telecom competition six feet under, the only choice I was given was where to pound in the nails.

As we have implemented the local competition provisions of the 1996 Act, I have sought to take a careful and balanced view of the benefits and burdens of our unbundling rules. The record here, however, overwhelming demonstrates that competitors need access to critical bottleneck elements from the incumbents' legacy networks in order to connect their networks to their customers. Yet, today the Commission denies access to those elements with an overbroad decision that is divorced from the requirements of the statute, the direction of the courts, the evidence in this record, and the realities of providing telephone service.

Most stark is the Commission's treatment of local loops, which carry telephone traffic from customers' locations to a service provider's network. These local loops act as the on and off ramps to reach the alternative facilities-based networks that competitors have constructed at considerable expense. In this Order, the Commission adopts a wire center-based approach for these elements that is disconnected from the operational and economic barriers a competitor would face if it had to duplicate the incumbent's legacy network. While the majority insists that this approach is compelled by the courts, the majority adopts an overly restrictive reading of the precedent and adopts rules that do not track the statutory touchstone of impairment. By cutting facilities-based competitors off from access to essential network elements, the Commission undermines choice for small and medium size business customers across the country, let alone all consumers. In my view, these small business customers, who are so central to our nation's economic growth, have yet to realize the wave of rate increases to come.

Nowhere, though, will this disconnection be as pronounced as in the largest metropolitan markets. These are areas where competitors have been able to gain a tenuous but growing foothold, building out their own networks closer to consumers, just as this Commission repeatedly encouraged them to do. Investors, who have committed billions of dollars of private investment in facilities-based wireline competition, have argued persuasively that the type and locations of their facilities were selected precisely to mesh with loop and transport elements leased from incumbent carriers as unbundled network elements pursuant to the Act. These investors have emphasized that their investments are "essentially worthless" and that "further investments will not be forthcoming," without access to those elements leased from the incumbents.

The message from the facilities-based competitive industry has been clear: this Order will be devastating. It will create dislocation not only for telecommunications companies and their employees, but it will disrupt service for thousands of businesses that rely on them. Given the importance of the cutting-edge services these upstarts provide, this decision is bound to be a drag on the growth of our overall economy. While some argue it will spur investment, it is more likely to diminish it, as competitors who would otherwise invest are forced out of business and incumbents face less pressure to respond to their offerings.

Today's decision also marks the demise of UNE-based competition for residential consumers. For millions of residential consumers, that translates into fewer choices and higher prices. The majority concludes here that this residential competition, predicated on the availability of unbundled local switching, is unsustainable under existing legal precedent. Despite these protestations, the majority all but ensured this result.

I note with appreciation that the majority at least took some of our suggestions. Applying strict eligibility criteria to stand-alone UNE loops would have drastically limited competitors' ability to provide data services, which this Commission has touted as the future of the telecommunications market. Also, I appreciate the majority's willingness to extend slightly the transitions available to competitors who have invested so much in the effort to fulfill the goals of the 1996 Act. I would have supported relief more in line with the Commission's transition approaches used in other proceedings, where the Commission has been granted great deference to fashion transitional remedies.

Moreover, I have serious concerns that consumers may experience unnecessary service disruptions as their providers of choice are forced to exit the marketplace or as carriers rush to convert to new systems. To safeguard against this upheaval, it will be imperative that our State commission colleagues monitor the re-absorption, like the proverbial rat in a python, of millions of consumers who have chosen competitive alternatives. Our failure to address this possibility more comprehensively shows unnecessary disregard for consumers who have signed up with competitors -- for such disruptions would come through no fault of their own.

While I strongly dissent from this Order, I want to thank my colleagues for their candor in approaching these issues. I am deeply disappointed that we cannot find common ground on this result, but I respect their opinions and our dialogue. Some may argue the dissenters drove too hard a bargain and let the perfect be the enemy of the good. I weighed heavily this concern but cannot agree. The disconnect between the Commission's pro-competitive statements and the anti-competitive policies adopted here is too wide to sanction. The Commission's lofty promises and assurances directed this summer at facilities-based competitors ring hollow in this Order. Beyond rhetoric, the harm to competition and consumers is too great a price for the constrained and ineffectual approach outlined in this Order. Finally, I find this Order dismissive of Congress's vision that the 1996 Act would allow facilities-based competitors to grow and to get a foothold in the market by relying on elements like loops and transport that they need to do business. For all these reasons, I respectfully dissent.