find that section 251(d)(2), by its express terms, permits us to consider, where appropriate, "other" factors closely tied to the purposes of the statute in reaching an unbundling determination,[555] we have not found on this record any other factors that would require unbundling in the absence of impairment. We have, however, used this authority to inform our consideration of unbundling in contexts where some level of impairment may exist, but unbundling appeared likely to undermine important goals of the 1996 Act.[556] Specifically, in our analyses of fiber-to-the-home (FTTH) and hybrid loops, we have considered the goal set forth in section 706 of the Act, that the Commission "shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans,"[557] as well as the

[555] Many commenters urge us to affirm this approach. *See* BellSouth Comments at 26-28; CompTel Comments at 29; GCI Comments at 29; HTBC Comments at 42; NuVox Comments at 33-35; SBC Comments at 11-12, 18, 21-22 (arguing that the Commission should take into account the goals of encouraging facilities-based competition, the deployment of advanced technologies, and protecting competition where it already exists); Verizon Comments at 26; HTBC Reply at 20; Qwest Reply at 18; *see also* UNE Platform Coalition Comments at 24 (urging Commission to take public interest into account in unbundling analysis); SBC Reply at 50 (urging Commission to examine whether unbundling will benefit or harm "competition" in particular circumstances). *But see* AT&T Comments at 41-43 (arguing that the Commission cannot consider whether unbundling would be harmful to competition, and that unbundling necessarily promotes competition and facilities-investment); CompTel Comments at 25 (arguing that the Commission can fully satisfy section 251(d)(2) by considering only "impair"), 26-27 (arguing that consideration of section 706 could only lead the Commission to order unbundling in the absence of impairment), 28-30 (arguing that "at a minimum" can only be used to order unbundling in the absence of impairment).

[556] Thus, we disagree with commenters that suggest that we cannot, consistent with the Act, consider whether unbundling will deter investment or whether unbundling is consistent with the goals of section 706. *See* Allegiance Comments at 11-12; ALTS *et al.* Comments at 29-35; CompTel Comments at 18, 27-28. We do not read section 251 in isolation, but in the larger context of the 1996 Act, including all its expressed purposes such as those contained in section 706. Indeed, the courts require as much. *See Iowa Utils. Bd.*, 525 U.S. at 388 (requiring the Commission "to apply *some* limiting standard, rationally related to the goals of the Act," as it considers "necessary" and "impair") (emphasis in original); *USTA*, 290 F.3d at 425 (urging the Commission to engage in some analysis of the trade-offs between unbundling and investment incentives).

[557] The Act defines "advanced telecommunications capability" "without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology." *Id.* § 157 nt (c)(1). The Commission considers services with upstream and downstream speeds in excess of 200 kbps to display "advanced telecommunications capability." *Third Section 706 Report 2002*, 17 FCC Rcd at 2850, para. 9.

Our approach is entirely consistent with section 706 and the language of the Preamble to the 1996 Act, which states that the statute is "[a]n Act [t]o promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." Preamble to the 1996 Act. It is also consistent with section 7(a), which states that "[i]t shall be the policy of the United States to encourage the provision of new technologies and services to the public." 47 U.S.C. § 157(a); *see also infra* Part VI.A.4.a.(iv)(b); Covad Comments at 78; FTTH Council Comments at 2-3, 6; HTBC Comments at 43; TIA Comments at 23; USTA Comments at 5; SBC Reply at 51-52.

We disagree that the goals of sections 251 and 706 cannot be balanced because, as several commenters argue, these statutory provisions are aimed at separate and distinct product markets. Likewise, we also disagree that the goals of section 706 can only be encouraged by unbundling. *See* ALTS *et al.* Comments at 31-32; BellSouth Comments at 32; CompTel Comments at 26; McLeodUSA Comments at 5; NuVox Comments at 12-13, 34. *See generally* Allegiance Comments at 14-15; ASCENT Comments at 22-25; Illinois Commerce Commission Comments (continued....)

presence of intermodal competition. In sum, we will continue to weigh other factors that may be relevant to a particular unbundling determination, but we will do so with an eye to the specific goals of the Act, as the D.C. Circuit has indicated we may do.

174. We reject arguments that the Commission can only use the "at a minimum" language to decline to unbundle despite impairment in order to remain faithful to the courts' admonitions to find a "limiting standard" for unbundling or that the Commission must decline to unbundle if unbundling would frustrate other Congressional goals.[558] First, we note that Congress did not specify what it meant by "at a minimum"; thus we disagree that the meaning of the phrase is not subject to interpretation. In addition, as explained above, we find that it is reasonable to interpret the phrase to permit the Commission to make unbundling determinations in light of the Act's many and conflicting goals, not just goals that would limit incumbent LECs' unbundling obligations. Finally, section 251(d)(2) does not direct us to unbundle only if all goals of the Act are satisfied by doing so. Rather, we must balance all these goals as we make our unbundling determinations. For similar reasons, we disagree that "at a minimum" can only be used to order unbundling in the absence of impairment.[559]

175. We disagree that the Commission must find, under section 706, that advanced telecommunications capability is not being deployed in a reasonable and timely fashion before it can take section 706 into account in its unbundling analysis.[560] Rather, as explained above, we find that the "at a minimum" language permits us to take many goals into account, including those expressed in section 706. While the Commission may have found that the goals of section 706 are being met on a reasonable and timely basis, that does not preclude us from taking measures to ensure that that continues to be the case or to accelerate the achievement of those goals.

176. We also reject parties' arguments that taking other goals into account, such as the Act's goals in section 706, amounts to forbearance under section 10(d), which is prohibited unless section 251(c) has been "fully implemented."[561] We are not "forbearing"; rather we are

(Continued from previous page)

at 4; Moline Dispatch Publishing Comments at 7; Sprint Comments at 10. Rather, we find that markets covered by section 251 may well overlap with the markets addressed by section 706. And, as explained above, unbundling may not always promote the goals of section 706.

[558] *See* SBC Comments at 11 n.16; Verizon Comments at 26; Qwest Reply at 18-20; Verizon Reply at 45, 47-50. *But see* Minnesota Department of Commerce Reply at 6 (questioning why Commission would impose a higher standard for unbundling than "necessary" and "impair" now when capital markets are restricted).

[559] *See, e.g.*, ALTS *et al.* Comments at 35-36; CompTel Comments at 29-30; UNE Platform Coalition Comments at 21-23; WorldCom Comments at 52. Contrary to the views of AT&T, we find that unbundling where there is no impairment does not promote competition without any costs, even if new entrants "prefer" to use their own facilities where possible. *See* AT&T Comments at 46-47. Rather, as explained above, unbundling has administrative and social costs that the courts have cautioned us to consider carefully, and we cannot simply hope that competitors will choose to use their own facilities rather than UNEs. *See supra* Part V.B.

[560] *See* Consumer Federation *et al.* Comments at 20-21.

[561] *See* CompTel Comments at 19. *See generally* Allegiance Comments at 13; AT&T Comments at 87.

applying section 251(d)(2) to determine where unbundling serves the goals of the Act.[562] Contrary to arguments otherwise,[563] our approach is fully consistent with the *Advanced Services Order*, where we concluded that "section 706(a) directs the Commission to use the authority granted in other provisions . . . to encourage the deployment of advanced services,"[564] and with *ASCENT v. FCC*, where the D.C. Circuit admonished the Commission for the equivalent of forbearing from section 251(c).[565] The Commission has not proposed to relax in any way the requirements of section 251(c)(3), which establishes "'*where* unbundled access must occur, not *which* [network] elements must be unbundled.'"[566] Rather, we take section 706 into account in interpreting and applying section 251(d)(2), a separate provision. Indeed, section 251(d)(2), particularly the "at a minimum" clause, grants us all the authority we need to take Congress's goals into account as we decide "*which* [network] elements must be unbundled.'"[567] We do not need any "authority" from section 706(a) to take this approach.

177. We also disagree that section 706's direction to use measures that "promote competition in the local telecommunications market" means that the Commission cannot read section 706 to limit any unbundling obligations.[568] To the contrary, as explained above, the "at a minimum" language of section 251(d)(2) expressly contemplates that the Commission will take other factors into account, and we find that the explicit goals of the Act such as those contained in section 706 most likely reflect Congress's intent for what we should take into account. And in any event, we find in neither section 706 nor section 251 a direction that one provision always "trumps" the other; through our approach we seek balance between them both.

178. Also regarding section 706, we note that the discussions below of individual UNEs address the role that investment incentives play in our unbundling determination. Parties

---

[562] Likewise, because we use section 706 as an "at a minimum" consideration as described above, we need not visit the question of whether we can or should forbear from section 251. *See* HTBC Comments at 45-47 (arguing that the Commission should forbear from unbundling broadband facilities, and that section 251 is "fully implemented" because incumbent LECs are subject to intermodal competition for broadband services); Progress & Freedom Foundation Comments at 34 (arguing that a grant of section 271 authority means that section 251 is "fully implemented" in that state); TIA Comments at 23-24. *But see* WorldCom Reply at 37-38.

[563] *See* AT&T Comments at 86.

[564] *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 98-147, 98-11, 98-26, 98-32, 98-15, 98-78, 98-91, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, 24045, para. 69 (1998) (*Advanced Services Order*); *see also id.* at 24046, para. 74 ("[S]ection 706(a) gives this Commission an affirmative obligation to encourage the deployment of advanced services, relying on our authority established elsewhere in the Act.").

[565] *ASCENT v. FCC*, 235 F.3d 662, 666 (D.C. Cir. 2001).

[566] *Iowa Utils. Bd.*, 525 U.S. at 391 (quoting *Iowa Utils. Bd v. FCC.*, 120 F.3d at 810) (emphasis in 8th Circuit opinion, bracketed language inserted in Supreme Court opinion).

[567] *Id.*

[568] *See* AT&T Comments at 85.

have taken widely divergent views throughout this proceeding on the question of whether mandatory unbundling obligations promote or deter investment in new infrastructure.[569] In general, the incumbent LECs and equipment manufacturers take the position that unbundling deters both incumbent LEC and competitive LEC capital investment.[570] The competitive industry criticizes the incumbent LEC studies as incomplete, skewed and inaccurate.[571] In contrast, the competitive industry advances its own studies that ascertain that certain unbundling obligations do not hinder, but rather encourage incumbent LECs to make capital investments to modernize their networks and deploy new services to meet increasing competition.[572] In addition, competitors assert that they make capital investments where such investments are economically rational and use UNEs elsewhere; that is, they contend that the availability of UNEs does not detract from competitive LECs deploying their own networks.[573] The incumbent LECs, in turn,

---

[569] We address arguments concerning specific UNEs in the relevant sections. *See infra* Parts VI.A. and VI.D.

[570] *See, e.g.*, ACS Comments at 6-7; Alcatel Comments at 6-11; BellSouth Comments at 71-72; California Commission Comments at 8-10; GSA Comments at 11-12; Maine CLEC Coalition Comments at 4-6; Progress & Freedom Foundation Comments at 9-31, Attach., *Investment Incentives and Local Competition at the FCC*, Media Law & Policy, IX, 1, 1-18, Larry F. Darby and Joseph Fuhr; Ohio Commission Comments at 16; Qwest Comments at 14-16; Verizon Comments at 27-29, 34-36; ACS Reply at 6-8; AT&T Reply at paras. 126-36, 339-43; El Paso and CTC Reply at 11-16; Progress & Freedom Foundation Reply at 3; Qwest Reply at 13-15 and Attach. A, Declaration of Joseph Farrell at para. 5; SBC Reply at 22-45; *see Stimulating Investment and the Telecommunications Act of 1996*, Robert D. Willig, et. al. (AT&T Oct. 11, 2002 Willig Stimulating Investment) at 5, *in* Letter from Joan Marsh, Director, Government Affairs, AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 11, 2002) (AT&T Oct. 11, 2002 *Ex Parte* Letter); Letter from Debbie Goldman, Research Economist, CWA, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 1-4 (filed Jan. 14, 2003) (CWA Jan. 14, 2003 *Ex Parte* Letter).

[571] AT&T Reply at paras. 346-59; El Paso and CTC Reply at 16-23; Letter from Joan Marsh, Director – Federal Government Affairs, AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach., C. Michael Pfau, *Correcting the RBOCs' Empirical Analysis of the Linkage Between UNE-P and Investment* (AT&T Correcting) at 12, 14 (filed Oct. 16, 2002) (AT&T Oct. 16, 2002 *Ex Parte* Letter); Letter from Christopher J. Wright, Counsel for Z-Tel, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Nov. 7, 2002) (Z-Tel Nov. 7, 2002 *Ex Parte* Letter); Letter from Marc Goldman, Counsel for WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 13 (filed Nov. 13, 2002) (WorldCom Nov. 13, 2002 *Ex Parte* Letter); Letter from Kimberly Scardino, Senior Counsel, WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Nov. 27, 2002) (WorldCom Nov. 27, 2002 *Ex Parte* Letter); Letter from David R. Conn, Deputy General Counsel, McLeodUSA, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 1-6 (filed Jan. 8, 2003) (McLeodUSA Jan. 8, 2003 *Ex Parte* Letter); Letter from David R. Conn, Deputy General Counsel, McLeodUSA, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 1-4 (filed Jan. 17, 2003) (McLeodUSA Jan. 17, 2003 *Ex Parte* Letter).

[572] AT&T Willig Decl.; Letter from Michael J. Hunseder, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed June 28, 2002) (AT&T June 28, 2002 *Ex Parte* Letter); *Innovation, Investment, and Unbundling: An Empirical Update*, Robert B. Ekelund, and George S. Ford, (Z-Tel Innovation) at 5, *in* Letter from Christopher J. Wright, Counsel for Z-Tel, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, (filed Oct. 7, 2002) (Z-Tel Oct. 7, 2002 *Ex Parte* Letter); AT&T Willig Stimulating Investment at 1-7, 28-39.

[573] AT&T Comments at 44-65; CompTel Comments at 78-82, Declaration of James N. Perry at paras. 9-24; CompTel Comments, Declaration of John Hunt at paras. 1-11; Dynegy Comments at 4-7; Eschelon Comments at 10-

(*continued....*)

challenge the competitive LEC studies as flawed and unreliable.[574] The evidence submitted by both sides is inconclusive. The economic studies presented by each side suffer from flaws that undermine their probative value. Studies submitted by the incumbent LECs are generally simple correlation models or state-to-state comparisons lacking adequate efforts to control for or explain other relevant variables.[575] Studies submitted by the competitive LECs include multiple regression models, but their conclusions relate more to particular market strategies of some competitive LECs rather than the effect on competitive services that would be provided under an alternate unbundling obligation. Neither the overall levels of competitive LEC activity nor the not insubstantial costs associated with unbundling were generally addressed by either the competitive LECs or the incumbent LECs.[576] That said, we return to these issues in more detail in the specific unbundling sections below.

(Continued from previous page)

15; GCI Comments at 33-41; Indiana Commission Comments at 8-9; Moline and CCG Comments at 6-8; WorldCom Comments, Attach. A, *The Technology and Economics of Cross-Platform Competition In Local Telecommunications Markets*, Richard A. Chandler, A. Daniel Kelley, and David M. Nugent, HAI Consulting, Inc. (WorldCom Technology and Economics) at 88; Sprint Reply at 14-16; WorldCom Kelley Reply Decl. at 13; Z-Tel Reply at 74-90; Letter from Christopher J. Wright, Counsel for Z-Tel, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach., *Unbundling and Facilities-Based Entry by CLECs: Two Empirical Tests*, George S. Ford and Michael D. Pelcovits (Z-Tel Unbundling), at 2, and Attach. *Preliminary Evidence on the Demand for Unbundled Elements*, Robert B. Ekelund, and George S. Ford, at 2 (filed Oct. 7, 2002) (Z-Tel Oct. 7, 2002 Unbundling *Ex Parte* Letter); Letter from Genevieve Morelli, Counsel for CompTel, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 1, 96-97 (filed Oct. 31, 2002) (CompTel and PACE Oct. 31, 2002 *Ex Parte* Letter); WorldCom Nov. 13, 2002 *Ex Parte* Letter at 11; Letter from Phil Marchesiello, Co-Chairman, The Official Committee of Unsecured Creditors of WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Jan. 30, 2003) (WorldCom Unsecured Creditors Jan. 30, 2003 *Ex Parte* Letter). Eschelon states that small competitive LECs like itself serving small enterprise customers are also encouraged investment in their own networks where UNEs are available to fill in service territories. Eschelon Comments at 11.

[574] BellSouth Reply at 60-61; BOC Shelanski Decl. at paras. 4-12; SBC Reply at 3-16; Verizon Nov. 18, 2002 *Ex Parte* Letter at 1-7.

[575] BOC Shelanski Decl. at 22. Verizon Reply, Appendix 2, *UNE-P and Investment*, Prepared for BellSouth, SBC, and Verizon, July 2002, (Verizon Unbundled Switching Study). The study consisted of a univariate regression, which AT&T characterizes as a correlation study. AT&T Oct. 15, 2002 *Ex Parte* Letter at 12, 14. AT&T notes that only two cable companies are significantly implementing cable telephony and they do not have franchises in New York, so any comparison between California and New York cable telephony is unsound. Also, the E-911 database used to estimate competitive LEC access lines can only provide an upper bound to competitive access lines and closer to 9.7 to 9.9 million lines as opposed to the 16.4 million lines used by the BOCs in their analysis. The study supposedly showing how high level of UNE-P equates to low facilities-based competitive LEC access lines simply plots competitive LEC facilities-based access lines against competitive LEC UNE-P lines but does not include all states. Pfau duplicates the calculation but includes all states demonstrating that there is no depression of investment. Pfau also claims the BOCs significantly overstated the number of AT&T competitive LEC switches in California and New York by confusing local from long distance tandem switches. AT&T Pfau Correcting at 3-9.

[576] AT&T Willig Decl. The study was a multivariate regression between UNE pricing and incumbent LEC investment. It is methodologically suspect to use investment divided by state population as opposed to the more direct BOC measure of dividing by access lines: BOC access lines as a percentage of state population vary significantly. The author's independent variables of UNE rates, average revenue per access line and the incumbent LEC cost of investment are not well explained, subject to significant errors, and appear suspect lacking significant (continued....)

E. Role of the States

1. Background

179. Sections 201(b) and 251(d)(1) of the Act authorize and direct the Commission to establish rules to implement the network unbundling requirements of section 251(c)(3) and 251(d)(2) of the 1996 Act. Section 201(b) provides that "[t]he Commission may prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this Act."[577] Section 251(d)(1) provides:

> Within six months of the date of enactment of the Telecommunications Act of 1996, the Commission shall complete all action necessary to establish regulations to implement the requirements of this section.[578]

Section 251(d)(2) directs the Commission to perform the "necessary and impair" analysis required to determine what network elements should be made available.[579]

(Continued from previous page)

additional explanation. It is unclear if the error terms are robust, *i.e.*, heteroskedasticity-corrected, standard errors; if not, then conclusions about statistical significance could be inaccurate. The author's attributing the lack of significance in many of the variables to simply "noise" cannot be accepted without stronger justification. The competitive LEC access line data may significantly understate actual levels of competition as the data excludes competitive LECs with less than 10,000 access lines in a state. Willig expanded his analysis in AT&T Willig Stimulating Investment, but the essential analysis is unchanged. AT&T Willig Stimulating Investment. In WorldCom Technology and Economics, the authors do not provide an econometric model, but simply view the gross incumbent LEC investment since the 1996 Act and assert that this proves unbundling does not deter incumbent LEC investment. *See* WorldCom Technology and Economics at 88. Such a simple and gross comparison fails to take into account any other possible variables that might explain the investment pattern. Such a gross comparison cannot be given significant weight. *Id.* at 96-97. In Z-Tel Unbundling and in Z-Tel Preliminary Evidence, the two studies use multivariate econometric analysis and demonstrate that there is a downward sloping demand curve for UNE-P: as prices increase quantity demanded of UNEs by competitive LECs decrease. It is difficult to criticize the almost universal economic truism illuminated in the results, but whatever the validity of the results, they do not demonstrate what effect reducing availability of network elements would have on investment. The studies might be more persuasive if the authors attempted to extend their analysis to the direct matter of investment. In Z-Tel Innovation, the study attempts to estimate the market risks of incumbent LECs to determine if the cost of raising capital investigates changed with the introduction of unbundling obligations. The authors concluded that, despite the economic downturn in recent years, the risk of borrowing money for capital spending had not increased. They conclude that unbundling has therefore not decreased incumbent LECs investment. The effect of the decrease in value of incumbent LEC's stock value was not addressed. Even given the results, this study does not address whether or to what extent investment is changed by unbundling obligations, simply concluding that the risk associated with incumbent LECs borrowing funds had not increased in recent years.

[577] 47 U.S.C. § 201(b).

[578] *Id.* § 251(d)(1).

[579] *Id.* § 251(d)(2).

180. The 1996 Act also preserves the states'[580] authority to establish unbundling regulations pursuant to state law as long as the exercise of state authority does not conflict with the Act and its purposes or substantially prevent the Commission's implementation. Section 251(d)(3) requires that, in prescribing and enforcing its regulations to implement the requirements of section 251 –

> the Commission shall not preclude the enforcement of any regulation, order, or policy of a State Commission that –
>
> (A) establishes access and interconnection obligations of local exchange carriers;
> (B) is consistent with the requirements of this section; and
> (C) does not substantially prevent implementation of the requirements of this section and the purposes of this part.[581]

Section 252(e)(3) preserves the state's authority in its review of interconnection agreements:

> Notwithstanding paragraph (2), but subject to section 253, nothing in this section shall prohibit a State commission from establishing or enforcing other requirements of State law in its review of an agreement, including requiring compliance with intrastate telecommunications service quality standards or requirements.[582]

Sections 261(b) and (c) generally preserve state authority to take action pursuant to state law, provided that such action is consistent with the Act and our federal framework.[583]

181. In the *Local Competition Order,* the Commission identified a national minimum list of UNEs that incumbent LECs must make available to new entrants upon request, as required by section 251(d)(2).[584] The Commission delegated to the states the authority to apply section 251(d)(2) – and the Commission's interpretation of that provision's "necessary" and "impair" standards – to require incumbent LECs to make available to new entrants additional network elements beyond those that the Commission identified in its minimum national list.[585]

---

[580] For purposes of this Order, the term "state" includes the District of Columbia and the Territories and possessions, as defined in section 3(40) of the Act. *Id.* § 153(40).

[581] *Id.* § 251(d)(3).

[582] *Id.* § 252(e)(3).

[583] *Id.* §§ 261(b), (c).

[584] *Local Competition Order,* 11 FCC Rcd 15499.

[585] *Local Competition Order,* 11 FCC Rcd at 15641-42, paras. 281-82; *see also* 47 C.F.R. § 51.317(a) and (b) (1996). Original rule 317 provided that, when faced with a request for additional *federal* unbundling beyond that required by the Commission's minimum list, the state could "*decline* to require unbundling of the network element (continued....)

182. The Supreme Court upheld the Commission's authority to implement the local competition provisions of the 1996 Act, including the unbundling requirements of section 251, in *AT&T Corp. v. Iowa Utilities Board.*[586] The Court found that Congress granted the Commission full authority to regulate with respect to matters addressed by the 1996 Act, even though, in doing so, Congress had "taken the regulation of local telecommunications competition away from the States."[587]

183. In the *UNE Remand Order,*[588] the Commission revisited its unbundling requirements in light of the Supreme Court's remand. In doing so, the Commission, among other things, stated that the source of authority relied upon for Rule 317 in the *Local Competition Order* was section 252(e)(3), which preserves a state's authority under state law when reviewing interconnection agreements.[589] The Commission amended Rule 317 in order to incorporate a revised "necessary" and "impair" standard into that rule.[590] The Commission also modified the language addressing state action with respect to additional unbundling requirements in two respects. First, the Commission's new language provided that "[a] state must comply with the standards set forth in this §51.317 when considering whether to require the unbundling of additional elements."[591] Second, the Commission rules provided that a state could not remove a network element from the national UNE list, but that the state could remove a network element that the state itself had added "in accordance with the requirements of this rule."[592] The Commission described the authority to be exercised by states under new Rule 317 as state law authority preserved by section 251(d)(3) of the Act, which preserves such authority regarding network elements to the extent that it is consistent with section 251 requirements and does not substantially prevent implementation of federal law.[593]

(Continued from previous page)

only if" that network element did not satisfy the applicable "necessary" or "impair" test. 47 C.F.R. § 51.317(b)(emphasis added).

[586] 525 U.S. 366. No party challenged the Commission's conclusion that it could authorize the states to apply those standards to require unbundling of additional network elements under federal law. However, the Supreme Court held that the Commission had not properly construed the "necessary" and "impair" standards of section 251(d)(2) and remanded to the Commission for further proceedings consistent with its opinion. *Id.* at 397. Following the Supreme Court's decision, the Eighth Circuit vacated Rule 317 because the rule incorporated the Commission's faulty construction of "necessary" and "impair" in its instructions to the states. *Iowa Utils. Bd. v. FCC,* 219 F.3d at 757.

[587] *Iowa Utils. Bd.*, 525 U.S. at 378 n.6.

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

[589] *Id.* at 3762, para. 145 and nn. 249-50.

[590] *Id.* at 3767-68, para. 155.

[591] 47 C.F.R. § 51.317(b)(4).

[592] *Id.*

[593] *UNE Remand Order,* 15 FCC Rcd at 3768, paras. 156-57.

184. In *United States Telecom Ass'n v. FCC*,[594] the D.C. Circuit reversed the revised construction and application of section 251(d)(2) that the Commission had adopted in the *UNE Remand Order*. Among other things, the Court found fault with the Commission's adoption of a "uniform national rule" that mandated provision of unbundled access to most network elements throughout the country.[595] The court held that section 251(d)(2) required "a more nuanced concept of impairment" that took into account possible variations in impairment in different geographic and customer markets.

185. In the *Notice*, we sought comment on the proper role of state commissions in the implementation of unbundling requirements for incumbent LECs in light of the changes that have occurred since the initial implementation of the 1996 Act. Specifically, we sought comment on the extent to which state commissions can create, remove, and implement unbundling requirements and the statutory provisions that would provide authority to states to act, consistent with applicable limitations on delegations of authority to the states.[596]

2. Discussion

186. The Communications Act assigns the Commission the responsibility for establishing a framework to implement the unbundling requirements of section 251(d)(2). In this Order, we create rules for UNEs based on our new impairment standard and marketplace developments over the past three years. We are cognizant of the concern expressed by the court in *USTA* that our prior rules were not narrowly-tailored enough. We recognize that competition has evolved at a different pace in different geographic markets and for different market segments. Thus, to ensure that the proper degree of unbundling occurs, we rely, in certain instances when such analysis is necessary, on market-by-market fact-finding determinations made by the states. While we delegate to the states a role in the implementation of our federal unbundling requirements for certain network elements that require this more granular approach, we make clear that any action taken by the states pursuant to this delegated authority must be in conformance with the Act and the regulations we set forth herein. We find further that the 1996 Act preserved the states authority to prescribe access obligations pursuant to state law in section 251(d)(3), but only to the extent that state laws or regulations do not conflict with or frustrate the Act and its purposes or substantially prevent the federal implementation regime. In short, the statute allows states to continue to exercise federal authority delegated by this Commission or state authority that is consistent with and does not substantially prevent implementation of the federal regime.

a. Federal Authority and the Role of the States

187. As we explain in this Order, we conclude that a more targeted, granular unbundling analysis is needed in light of the lessons learned over the last three years. To achieve

[594] 290 F.3d at 415.

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

[596] *Triennial Review NPRM*, 16 FCC Rcd at 22815-16, paras. 75-76.

the successful implementation of our new framework, we have examined what role the states should play.[597] The policy framework we adopt in this Order is based on carefully targeted impairment determinations. Where appropriate, based on the record before us, we adopt uniform rules that specify the network elements that must be unbundled by incumbent LECs in all markets and the network elements that must not be unbundled, in any market, pursuant to federal law. In doing so, we exercise our authority pursuant to sections 201(b) and 251(d) of the Act. As we explain in this Order, we find that setting a national policy for unbundling some network elements is necessary to send proper investment signals to market participants and to provide certainty to requesting carriers, including small entities. We find that states do not have plenary authority under federal law to create, modify or eliminate unbundling obligations.

188. The record before us and the D.C. Circuit's emphasis in *USTA* on granularity in making unbundling determinations both lead us to conclude that asking states to take on some fact finding responsibilities would be the most reasonable way to implement the statutory goals for certain network elements.[598] We find that giving the state this role is most appropriate where, in our judgment, the record before us does not contain sufficiently granular information and the states are better positioned than we are to gather and assess the necessary information. A more granular analysis will also benefit small businesses by considering the differing levels of competition in rural and urban markets and the differing needs and resources of carriers serving mass market and small to medium business customers.[599] We conclude that we have the authority to delegate to the states some of our authority pursuant to section 251(d)(2). Express statutory authority is not required for an agency validly to delegate functions to another entity or

[597] As the Commission stated in 1996, if, upon review, decision-making responsibilities have been inefficiently or inappropriately allocated between the Commission and the states, the Commission will reallocate them. *Local Competition Order*, 11 FCC Rcd at 15520, para. 41. Many state commissions urge the Commission to convene a Federal/State Joint Conference on unbundling requirements pursuant to section 410(b) of the 1996 Act before promulgating new rules. NARUC Comments at 4-5; Michigan Commission Comments at 5-6; Illinois Commission Comments at 3; *see also* CompTel Nov. 26, 2001 Joint Conference Petition. Others oppose the Federal/State Joint Conference proposal as superfluous and creating delay in resolution of the issues. ALTS *et al.* Comments at 132-33; Pennsylvania Commission Comments at 3-4 n.7; BellSouth Comments at 112. In light of our responsibilities under the Act to implement the unbundling obligations as well as the D.C. Circuit Court's decision in *USTA*, we find it imperative to move forward to adopt new rules without reference to a Joint Conference and we therefore deny that portion of the CompTel Petition.

[598] *See infra* Part VI. A number of state commissions have urged the Commission to take advantage of their knowledge of local market conditions. *See* Michigan Commission Comments at 4-6; Florida Commission Reply at 2-3; Georgia Commission Comments at 3-4; Massachusetts Department Comments at 5-8. Competitive LECs have made similar proposals. *See* AT&T Comments at 246-50; Letter from Heather B. Gold, Principle, KDW Group (for Broadview, Talk America, and Eschelon), to Marlene H. Dortch, Secretary, FCC, CC Docket 01-338, Attach. 1 (filed Dec. 31, 2002) (KDW Dec. 31, 2002 *Ex Parte* Letter). Some competitive carriers petitioned the Commission to adopt procedures that provide state public utility commissions with authority to determine which network elements should be unbundled in their states. *See* Promoting Active Competition Everywhere (PACE) Coalition Petition, CC Docket Nos. 01-338, 96-98, 98-147 (filed Feb. 6, 2002) (PACE Feb. 6, 2002 Petition). In light of our decision in this Order to delegate some of our unbundling authority to the states in appropriate circumstances, we dismiss the PACE petition as moot.

[599] *See* Eschelon Comments at 6, 8.

sovereign.[600] Moreover, neither section 251(d)(2) nor any other provision of the 1996 Act prohibits delegation of the Commission's authority to "determine what network elements must be made available."[601] Incumbent LECs argue that the Commission may not "punt" unbundling decisions to the states.[602] They argue that, in those instances where impairment analysis requires a more granular approach, the Commission should establish "objective, carefully defined criteria for determining where unbundling is (and is not) appropriate."[603] We find that, provided our delegation to the states is consistent with applicable federal law and is undertaken in a way that is reasonably designed to ensure that the substantive function at issue will be performed consistently with the statute's substantive standards, we are in no way "punting" decisions to the states.[604] Rather, we are reasonably implementing the statute, particularly given that states may be in the best position to judge whether the Act's extraordinary unbundling remedies should be applied.

189. We find that a delegation to the states with standards from the Commission will best ensure that our unbundling decisions are implemented consistently with the Act's purposes. We find this approach is consistent with the Supreme Court's view that the state commissions' participation in the "new federal regime" should be "guided by federal-agency regulations."[605] We limit the states' delegated authority to the specific areas and network elements identified in this Order. To ensure that the states implement their delegated authority in the same carefully targeted manner as our federal determinations, we set forth in this Order federal guidelines to be applied by the states in the execution of their authority pursuant to federal law.

190. We delegate to the states our authority under section 251(d)(2) to undertake analyses set forth in this Order which will affect incumbent LECs' unbundling obligations for certain elements in particular areas in this Order. There can be no doubt that state commissions possess the ability and the competence to undertake such analyses for specific network elements successfully. Moreover, for the elements we have specified, state commissions are well situated

---

[600] *See, e.g., Fleming v. Mohawk Wrecking & Lumber Co.*, 331 U.S. 111, 121-22 (1947); *Tabor v. Joint Board For Enrollment of Actuaries*, 566 F.2d 705, 708 n.5 (D.C. Cir. 1977); *Assiniboine and Sioux Tribes v. Board of Oil and Gas Conservation*, 792 F.2d 782, 795-96 (9th Cir. 1986).

[601] *See* 47 U.S.C. § 251(d)(2).

[602] Letter from Herschel L. Abbott, Jr., Vice President – Government Affairs, BellSouth *et al.*, to Michael K. Powell, Chairman, FCC at 2, *in* Letter from Cronan O'Connell, Vice President – Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 (filed Nov. 19, 2002) (RBOC Joint Nov. 19, 2002 *Ex Parte* Letter).

[603] RBOC Joint Nov. 19, 2002 *Ex Parte* Letter at 4.

[604] *See Vierra v. Rubin*, 915 F.2d 1372, 1378 (9th Cir. 1990) (a state's authority to define a federal statutory term may not exceed the statutory authority given the federal agency by Congress in the first place); *see also Assiniboine and Sioux Tribe v. Board of Oil and Gas Conservation*, 792 F.2d at 795-96; *Nat'l. Park and Conservation Ass'n v. Stanton*, 54 F. Supp. 2d 7, 19 (D.D.C. 1999).

[605] *Iowa Utils. Bd.*, 525 U.S. at 378 n.6. We do not agree that the Court meant to suggest that states had no role to play, as some have argued. *See* SBC Comments at 42.

to conduct the granular analysis required. If a state commission fails to perform the granular inquiry we delegate to them, any aggrieved party may petition this Commission to step into the state's role. Any party seeking Commission review of a state commission's failure to act shall file a petition with this Commission that explains with specificity the bases for the petition and information that supports the claim that the state has failed to act. The Commission will issue a public notice seeking comment on the petition and rule on the petition within ninety days from this public notice. If the Commission agrees that the state has failed to act, it will assume responsibility for the proceeding and make any findings in accordance with the rules set forth herein. These findings will be made nine months from the time the Commission has assumed responsibility for the proceeding.[606]

b. State Authority

191. Section 252(e)(3) preserves the states' authority to establish or enforce requirements of state law in their review of interconnection agreements. Section 251(d)(3) of the 1996 Act preserves the states' authority to establish unbundling requirements pursuant to state law to the extent that the exercise of state authority does not conflict with the Act and its purposes or our implementing regulations.[607] Many states have exercised their authority under state law to add network elements to the national list.[608]

192. We do not agree with incumbent LECs that argue that the states are preempted from regulating in this area as a matter of law.[609] If Congress intended to preempt the field, Congress would not have included section 251(d)(3) in the 1996 Act. We likewise do not agree with those that argue that the states may impose any unbundling framework they deem proper under state law, without regard to the federal regime.[610] These commenters overlook the specific restraints on state action taken pursuant to state law embodied in section 251(d)(3), and the

---

[606] In the case of switches used to serve customers in the enterprise market at the DS1 capacity and above, however, the Commission will issue its findings within 90 days from the time it has assumed responsibility for the proceeding. *See infra* Part VI.D.5.

[607] *See* 47 U.S.C. § 251(d)(3).

[608] *See, e.g.*, NARUC Comments at 8-9.

[609] *See, e.g.*, SBC Comments at 40-42; Verizon Comments at 65-66; RBOC Joint Nov. 19, 2002 *Ex Parte* Letter. *Cf. Iowa Utils. Bd.*, 525 U.S. 366 (rejecting incumbent LECs' assertions that the states, not the Commission, have authority to adopt rules to implement the local competition provisions of the 1996 Act).

[610] *See* NARUC Comments at 10 (urging the Commission "to defer to State determinations of whether unbundling requirements in any State should collapse to the existing or new federal minimums."); *see also* Z-Tel Comments at 89-90; AT&T Reply at 374-75; *see also* Letter from Edward A. Yorkgitis, Jr., Counsel for Talk America, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 (filed Nov. 15, 2002) (Talk America Nov. 15, 2002 Role of States *Ex Parte* Letter); AT&T Nov. 13, 2002 *Ex Parte* Letter at 4 (asserting that "section 251(d)(3) expressly bars the Commission from adopting regulations that preclude enforcement of State unbundling requirements that are in *addition* to those that the Commission adopts.").

general restraints on state actions found in sections 261(b) and (c) of the Act.[611] Their arguments similarly ignore long-standing federal preemption principles that establish a federal agency's authority to preclude state action if the agency, in adopting its federal policy, determines that state actions would thwart that policy.[612] Under these principles, states would be precluded from enacting or maintaining a regulation or law pursuant to state authority that thwarts or frustrates the federal regime adopted in this Order.[613]

193. Based on the plain language of the statute, we conclude that the state authority preserved by section 251(d)(3) is limited to state unbundling actions that are consistent with the requirements of section 251 *and* do not "substantially prevent" the implementation of the federal regulatory regime.[614] We disagree with those commenters that maintain that, because we have

---

[611] Z-Tel and Talk America argue that the Eighth Circuit has already found that section 251(d)(3) "constrains the FCC's authority" to preempt state access and interconnection obligations. Talk America Nov. 15, 2002 Role of States *Ex Parte* Letter at 2; Z-Tel Comments at 87-88, citing *Iowa Utils. Bd. v. FCC,* 120 F.3d. at 806-07. Z-Tel maintains that, in light of the Eighth Circuit's holding, the Commission should not attempt, in advance, to limit the state commissions' authority to create unbundling requirements but should conduct a separate adjudicative proceeding if an incumbent LEC seeks to preempt state unbundling requirements. Z-Tel Comments at 89. The Eighth Circuit found that the scope of federal rulemaking authority under section 251 of the 1996 Act was limited to six specific areas and interpreted section 251(d)(3) as a further constraint on Commission authority. *Iowa Utils. Bd. v. FCC,* 120 F.3d at 806. The Supreme Court reversed with respect to the scope of federal rulemaking authority in *Iowa Utilities Board.* The Commission did not appeal the Eighth Circuit's holding with respect to section 251(d)(3). That portion of the Eighth Circuit's opinion reinforces the language of the section, *i.e.*, that state interconnection and access regulations must "substantially prevent" the implementation of the federal regime to be precluded and that "merely an inconsistency" between a state regulation and a Commission regulation was not sufficient for Commission preemption under section 251(d)(3). *Id.* We believe our decision properly balances the broad authority granted to the Commission by the 1996 Act with the role preserved for the states in section 251(d)(3) and is fully consistent with the Eighth Circuit's interpretation of that provision.

[612] *See, e.g., Geier v. American Honda Motor Co.,* 529 U.S. 861, 873 (2000) (where state law frustrates the purposes and objectives of Congress, conflicting state law is "nullified" by the Supremacy Clause); *City of New York v. FCC,* 486 U.S. 57, 64 (1988); *see also Iowa Utils. Bd.,* 525 U.S. at 381 n.7 (the Court opined that, after the 1996 Act, the limitation on the Commission taking intrastate action embodied in section 152(b) of the Communications Act "may have less practical effect . . . because Congress, by extending the Communications Act into local competition, has removed a significant area from States' exclusive control.").

[613] *Fidelity Federal Savings & Loan Assoc. v. de la Cuesta,* 458 U.S. 141, 154 (1982) ("A pre-emptive regulation's force does not depend on express congressional authorization to displace state law"); *City of New York v. FCC,* 486 U.S. 57, 64 (1988) ("The statutorily authorized regulations of an agency will pre-empt any state or local law that conflicts with such regulations or frustrates the purposes thereof."). Even where Congress has preserved some role for the states the Supreme Court has found that "state law is nullified to the extent that it actually conflicts with federal law." *Fidelity Federal Savings & Loan Assoc. v. de la Cuesta,* 458 U.S. at 154. The Court stated that such a "conflict" arises ". . . when state law 'stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress,' *Hines v. Davidowitz,* 312 U.S. 52, 67, 61 S.Ct. 399, 404, 85 L.Ed. 581 (1941)." *Id.*

[614] We find that Congress' reference to the "implementation of the requirements of this section" in section 251(d)(3)(C) means the Commission's section 251 implementing regulations. AT&T's argument that the validity of state unbundling regulations must be measured solely against the Act's purposes fails to recognize that the Commission is charged with implementing the Act and its purposes are fully consistent with the Act's purposes. *See* AT&T Nov. 13, 2002 *Ex Parte* Letter at 6; Letter from Mark Rosenblum, Vice President – Law, AT&T, to Michael K. Powell, Chairman, FCC, *et al.*, CC Docket No. 01-338 at 7, *in* Letter from Joan Marsh, Director, Federal (continued....)

permitted states to add UNEs to our national list in the past, we cannot limit their ability to continue to do so.[615] Their argument ignores the clear directives Congress provided in the 1996 Act. Section 251(d)(3) preserves states' authority to impose unbundling obligations but only if their action is consistent with the Act and does not substantially prevent the implementation of our federal regime. Their argument also ignores the fact that prior Commission actions clearly had preemptive effect; as noted above, in the *UNE Remand Order*, the Commission prohibited the states from removing UNEs from the federally mandated list.

194. We also find that state action, whether taken in the course of a rulemaking or during the review of an interconnection agreement, is limited by the restraints imposed by subsections 251(d)(3)(B) and (C). We are not persuaded by AT&T's argument that a state commission may impose additional unbundling obligations in the context of its review of an interconnection agreement without regard to the federal scheme.[616] Section 252(e)(3) provides that nothing *in section 252* prohibits a state commission from imposing additional requirements of state law in its review of an interconnection agreement.[617] We find nothing in the language of section 251(d)(3) to limit its application to state rulemaking actions. Therefore, we find that the most reasonable interpretation of Congress' intent in enacting sections 251 and 252 to be that state action, whether taken in the course of a rulemaking or during the review of an interconnection agreement, must be consistent with section 251 and must not "substantially prevent" its implementation.

195. Parties that believe that a particular state unbundling obligation is inconsistent with the limits of section 251(d)(3)(B) and (C) may seek a declaratory ruling from this Commission. If a decision pursuant to state law were to require the unbundling of a network element for which the Commission has either found no impairment – and thus has found that unbundling that element would conflict with the limits in section 251(d)(2) – or otherwise declined to require unbundling on a national basis, we believe it unlikely that such decision would fail to conflict with and "substantially prevent" implementation of the federal regime, in violation of section 251(d)(3)(C). Similarly, we recognize that in at least some instances existing state requirements will not be consistent with our new framework and may frustrate its implementation. It will be necessary in those instances for the subject states to amend their rules and to alter their decisions to conform to our rules.

(Continued from previous page)

Government Affairs, AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Dec. 18, 2002) (AT&T Dec. 18, 2002 Rosenblum *Ex Parte* Letter).

[615] *See* California Commission Comments at 23; New York Department Comments at 8-9; NARUC Comments at 6; Florida Commission Comments at 5-6; AT&T Reply at 373-75; Letter from Access Integrated Networks *et al.*, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 2-3 (filed Oct. 24, 2002) (Access Integrated Networks Oct. 24, 2002 *Ex Parte* Letter).

[616] *See* AT&T Dec. 18, 2002 Rosenblum *Ex Parte* Letter at 9.

[617] *See* 47 U.S.C. § 252(e)(3).

196. We find that our federal framework, which provides for uniform national rules for some network elements and a more granular approach for others, offers the certainty and stability necessary to enable parties to make investment decisions. This approach is required under *USTA*.[618] Commenters have argued that nothing could create more instability, and be more destructive of investment incentives for both incumbent LECs and competitive LECs, than the establishment of multiple, separate state decisions as to which UNEs have to be offered and under what conditions.[619] In this Order we have balanced the need for a more granular analysis with the need for certainty through a federal unbundling regime. In light of policy reasons and the fact that the D.C. Circuit has found fault with our uniform national rules, we find that the availability of certain network elements may vary between geographic regions. However, the basis on which those more granular determinations will be made is straightforward and predictable. Additionally, we find that the limitations embodied in section 251(d)(3)(B) and (C) will prevent states from taking actions under state law that conflict with our framework and create disincentives for investment.

VI. UNBUNDLING REQUIREMENTS FOR INDIVIDUAL NETWORK ELEMENTS

A. Loops

1. Summary

197. Consistent with our statutory mandate and relevant judicial precedent, we focus on specific market and customer characteristics as informed by the various loop types and capacities that typically serve these markets and customers to undertake the granular inquiry necessary to determine where loop impairment exists.[620] In distinguishing among the various types of loop facilities, *i.e.*, DS0 (voice-grade/POTS), DS1, DS3, OCn and dark fiber, we recognize that these facilities, as a practical matter, typically serve distinct classes of customers,[621] resulting in different economic considerations for competitive carriers seeking to self-deploy.[622] Through this approach we are able to more precisely calibrate our rules to ensure that competitive LECs only gain access to unbundled loops where they are impaired under the

[618] *See USTA*, 290 F.3d at 427 (finding that Commission's concept of impairment failed to take account of relevant cost disparities).

[619] Verizon Reply at 51. Verizon also urges the Commission to expeditiously halt existing state efforts to craft expanded unbundling requirements. *Id.* at 53; *see also* SBC Reply at 71-83.

[620] Specifically, the local loop network element is a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and the loop demarcation point at an end-user customer premises. This network element also includes all features, functions and capabilities of such transmission facility, including the NID. It also includes all electronics, optronics, and intermediate devices (including repeaters and load coils) used to establish the transmission path to the end-user customer premises as well as any inside wire owned or controlled by the incumbent LEC that is part of that transmission path. *See infra* note 628.

[621] *See, e.g.*, SBC Comments at 96-98; NewSouth Reply at 16.

[622] As explained in Part VI.A.4.a. below, we make a further distinction in our unbundling analysis for mass market loops based upon the type of loop facility (*e.g.*, copper or fiber).

standard we adopt above, *i.e.*, where they cannot economically self-provision loops and competitive alternatives do not exist.[623] To that end, we conduct separate loop impairment analyses based on loop types and capacity levels, which also consider two relevant customer classes – the mass market and the enterprise market.[624]

198. With respect to our mass market analysis, we make national impairment determinations for loops based on general economic and operational factors that do not vary significantly by geographic region.[625] As we explain more fully below, we find that the technical characteristics of the loop facilities generally deployed for use by mass market customers counsel for adopting rules that take into account the various technologies now used in loops. In crafting our unbundling requirements, we consider other factors, most notably our mandate under section 706 of the Act to promote the rapid deployment of advanced services throughout the nation. Additionally, we reach our findings after full recognition and consideration of intermodal platforms, notably cable and CMRS.

199. Given the steep economic barriers associated with alternative loop deployment that are compounded by various identified operational issues, we require that loops consisting of either all copper or hybrid copper/fiber facilities must be provided on an unbundled basis so that

[623] Our loop unbundling analyses takes into account the relevant customer market typically served by the loop capacity involved. However, we recognize that although each loop type and capacity level may be used predominantly to provide service to a particular customer group, that same loop also may be used to provide service across a range of customer categories. For that reason, though our loop unbundling analysis focuses upon the customer classes most likely to be served by a specific type of loop, the unbundling rules we adopt apply with equal force to every customer served by that loop type. *See infra* paras. 209-10.

[624] As described in Part V.B.2.a. above, the mass market consists primarily of residential and similar, very small, business users of analog POTS. The enterprise market is a business customer market of typically medium to large businesses with a high demand for a variety of sophisticated telecommunications services. *See supra* Part V.B.2.a. The record reflects that high-capacity loops, DS1 to OCn, are generally provisioned to enterprise customers, while voice-grade analog loops, DS0 loops, and loops that deploy xDSL services, are used to serve customers typically associated with the mass market. We note, however, that while the enterprise market is comprised of business customers of varying size and capacity requirements, these customers reside, most often, in multiunit premises which are owned or controlled by another entity. Competitive carriers serving multiunit premises face deployment barriers that are not present when a competitive carrier seeks to deploy service to a customer located in a premises that such customer owns or controls. *See infra* Part VI.B.2. (addressing in detail barriers associated with accessing customers in multiunit premises). When customers typically associated with the mass market reside in multiunit premises, carriers seeking to self-deploy their own facilities to serve these customers face the same barriers as when serving multiunit premise-based enterprise customers. Because we find that the barriers faced by requesting carriers in accessing customers in multiunit premises are not unique to enterprise market customers residing in such premises but extend to all classes of customers residing therein, including residential or other mass market tenants, the conclusions we reach for high-capacity loops in the enterprise market apply equally to mass market customers in multiunit premises. This in no way affects or changes the conclusions we reach with respect to DS0 and xDSL capable loops in our mass market analysis.

[625] *See, e.g.*, AT&T Reply at 146, 165.