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

In the Matter of	)	
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147

ORDER ON RECONSIDERATION

Adopted: October 14, 2004 **Released:** October 18, 2004

By the Commission: Chairman Powell, Commissioners Abernathy, and Martin issuing separate statements; Commissioner Adelstein concurring in part, dissenting in part and issuing a statement; Commissioner Copps dissenting and issuing a statement.

I. INTRODUCTION

1. In this Order, we address, in part, BellSouth's and SureWest's petitions for reconsideration of our *Triennial Review Order*. Specifically, we conclude that fiber-to-the curb (FTTC) loops shall be subject to the same unbundling framework that the Commission established for fiber-to-the-home (FTTH) loops.[1] We also clarify that incumbent LECs are not required to add TDM capabilities into new packetized transmission facilities.

[1]FTTC loop deployments bring fiber from the central office to a location near – but not all the way to – the customer's premises. The fiber is connected to an optical network unit (ONU) or similar electronics at that location, from which copper and, often, coaxial cable are connected to each customer premises to provide voice, multichannel video, and high-speed data services. An ONU typically serves, for example, eight to 12 homes. Letter from Glenn Reynolds, Vice President – Federal Regulatory, BellSouth to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Att. at 6 (filed Sept. 17, 2003); BellSouth Petition at 2-6.

II. DISCUSSION

A. Fiber-to-the-Curb Loops

1. Background

2. In the *Triennial Review Order*, the Commission limited the unbundling obligations imposed on mass market FTTH deployments to remove disincentives to the deployment of advanced telecommunications facilities in the mass market.[2] We find here that those policy considerations are furthered by extending the same regulatory treatment to incumbent LECs' mass market FTTC deployments. Similarly, just as we found no impairment with respect to mass market FTTH loops in the *Triennial Review Order*, we also find that the level playing field for incumbents and competitors seeking to deploy FTTC loops, and increased revenue opportunities associated with those deployments, demonstrates that requesting carriers are not impaired without access to mass market FTTC loops.[3]

3. The Telecommunications Act of 1996 (the 1996 Act)[4] requires that incumbent LECs provide UNEs to other telecommunications carriers.[5] In particular, section 251(c)(3) of the Act states that incumbent LECs have a duty to

> provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and

[2]*See 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*). The Commission did not strictly define the mass market in its *Triennial Review Order*. The Commission has solicited comment on how it should define this market in its *Triennial Review Order* remand proceeding. *Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, WC Docket No. 04-313, CC Docket No. 01-338, Order and Notice of Proposed Rulemaking, FCC 04-179, para. 9 (rel. Aug. 20, 2004) (*Interim Order and NPRM*).

[3]*Triennial Review Order*, 18 FCC Rcd at 17143-45, paras. 275-77.

[4]Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56. 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."

[5]Section 153(44) of the Act defines a telecommunications carrier as "any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226)." 47 U.S.C. § 153(44). Section 153(44) also states that "[a] telecommunications carrier shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage." *Id.*

> nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and section 252.[6]

4. The 1996 Act also establishes a general federal standard for use in determining the UNEs that must be made available by the incumbent LECs pursuant to section 251. 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 – (A) access to such network elements as are proprietary in nature is necessary; and (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.[7]

5. In implementing the statutory unbundling requirements for mass market local loops, we engage in a balancing test.[8] While impairment remains the statutory touchstone, we do not rely exclusively on an impairment analysis to make our unbundling determination. As the Commission found in the *Triennial Review Order*, we retain the flexibility under our section 251(d)(2) "at a minimum" authority to consider other factors.[9] Although we use this flexibility sparingly, we consider the goal of swift ubiquitous broadband to be so important that we consider the statutory goals outlined in section 706 and how they relate to broadband as additional factors.[10] We also consider the comparative weight of the costs versus benefits of unbundling and the effect of intermodal competition.[11]

6. Accordingly, in the *Triennial Review Order*, the Commission applied the above analysis taking into account impairment as well as the goals outlined in section 706 and imposed only limited unbundling obligations on incumbent LECs' fiber loops. In *USTA II*, the D.C. Circuit upheld these rules.[12] The Commission granted the greatest unbundling relief for dark or lit fiber loops serving mass market customers that extend to the customer's premises (known as fiber-to-the-home or FTTH loops) in new build or "greenfield" situations. For those loops, the Commission determined that no unbundling is required.[13] However, where a FTTH loop is deployed in overbuild, or "brownfield," situations, the Commission determined that incumbent LECs must either provide unbundled access to a 64 kbps transmission path over the fiber loop or unbundled access to a spare copper loop.[14] We noted that this "is

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[6] 47 U.S.C. § 251(c)(3).

[7] *Id.* § 251(d)(2).

[8] *See Triennial Review Order*, 18 FCC Rcd at 17121, para. 234.

[9] *Triennial Review Order*, 18 FCC Rcd at 17121, para. 234; *USTA II*, 359 F.3d at 572, 579-80.

[10] *Triennial Review Order*, 18 FCC Rcd at 17121, para. 234.

[11] *Id.*

[12] *USTA II*, 359 F.3d at 578-85.

[13] *Triennial Review Order*, 18 FCC Rcd at 17143, para. 275 (2003).

[14] *Triennial Review Order*, 18 FCC Rcd at 17144-45, paras. 276-77; 47 C.F.R. § 51.319(a)(3)(ii).

a very limited requirement intended only to ensure continued access to a local loop suitable for providing narrowband services to the mass market in situations where an incumbent LEC has deployed overbuild FTTH and elected to retire the pre-existing copper loops."[15] Under the *Triennial Review Order*, incumbent LECs were not required to retire pre-existing copper loops. For hybrid copper/fiber loops, the Commission granted unbundling relief for the packet-switched capabilities of those loops, but required incumbent LECs to provide unbundled access to the features, functions, and capabilities of hybrid loops that are not used to transmit packetized information.[16] The Commission concluded that when a requesting carrier seeks access to a hybrid loop to provide narrowband service, the incumbent LEC may provide either unbundled access to an entire hybrid loop capable of voice grade transmission path service or provide unbundled access to a spare copper loop.[17]

7. On October 2, 2003, BellSouth filed a petition for reconsideration of several issues decided in the *Triennial Review Order*.[18] In the *MDU Reconsideration Order*, the Commission addressed one part of BellSouth's petition, which sought clarification and reconsideration of several aspects of the Commission's rules regarding fiber loops.[19] In particular, the Commission concluded that the FTTH loop rules will apply to fiber loops serving multiple dwelling units (MDUs) that are predominantly residential.[20] The Commission further clarified that the definition of FTTH loops includes fiber loops deployed to the minimum point of entry (MPOE) of MDUs, regardless of the ownership of the inside wiring.[21]

8. This Order addresses an additional aspect of BellSouth's petition for reconsideration.[22] Specifically, BellSouth seeks reconsideration of the regulatory treatment of FTTC loops, which BellSouth claims is sufficiently similar to FTTH loops to be subject to the same broadband loop unbundling rules.[23] BellSouth argues that FTTC loops are indistinguishable from FTTH loops in their ability to deliver broadcast or better quality, multi-channel video along with high speed data and voice services.[24] Moreover, BellSouth contends that the impairment analysis is the same as FTTH loops

[15] *Triennial Review Order*, 18 FCC Rcd at 17145, para. 277.

[16] *Triennial Review Order*, 18 FCC Rcd at 17149-90, paras. 288-89; 47 C.F.R. §§ 51.319(a)(2)(i), (ii).

[17] *Triennial Review Order*, 18 FCC Rcd at 17153-54, para. 296; 47 C.F.R. § 51.319(a)(2)(iii).

[18] *See generally* BellSouth Petition.

[19] *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, FCC 04-191 (rel. Aug. 9, 2004) (*MDU Reconsideration Order*). SureWest also filed a petition seeking reconsideration of the Commission's regulatory treatment of MDUs, among other issues. *See* SureWest Petition at 5-7.

[20] *MDU Reconsideration Order* at paras. 4-9.

[21] *Id.* at paras. 10-11.

[22] Parties filing comments in response to BellSouth and other Petitions for Reconsideration in this docket are listed in Appendix A.

[23] BellSouth Petition at 1-9. FTTC loops currently are subject to the unbundling rules governing hybrid loops. *Triennial Review Order*, 18 FCC Rcd at 17143-44, para. 275 n.811.

[24] BellSouth Petition at 5.

because incumbent LECs have no economic advantage over competitive LECs in deploying FTTC loops.[25] Competitive LEC commenters contend that unbundling relief is not warranted, both because BellSouth already has deployed some FTTC networks despite the existing unbundling requirements, and because BellSouth has not yet utilized the full capabilities of those networks.[26] Moreover, some commenters disagree with BellSouth's assertion that FTTC loops offer the comparable broadband capabilities as FTTH loops, citing evidence that the potential future capacity of FTTH loops are greater than FTTC loops.[27]

2. Discussion

9. After applying section 251(d)(2)(B) and balancing any impairment competitive carriers may face, against the broadband deployment goals of section 706 in the specific context of FTTC loops, we conclude that the record here demonstrates that the same unbundling relief as provided for FTTH loops in the *Triennial Review Order* and *MDU Reconsideration Order* is warranted for FTTC loops provided certain architectural requirements are met as discussed below.[28] In arriving at this conclusion, we are persuaded that making such a change in our rules is necessary to ensure that regulatory disincentives for broadband deployment are removed for carriers seeking to provide advanced services to mass market customers using FTTC technology.[29]

10. In granting such relief, we first define FTTC loops. Specifically, a FTTC loop is a fiber transmission facility connecting to copper distribution plant that is not more than 500 feet from the customer's premise.[30] The record reflects that when fiber is brought within 500 feet of a subscriber's

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[25]BellSouth Petition at 6-7.

[26]*See, e.g.*, Allegiance *et al.* Comments at 11-12; ALTS Comments at 5; AT&T Comments at 6-11; MCI Comments at 9-10; NuVox *et al.* Comments at 6, 8; PACE Comments at 11; Sprint Comments at 8; Letter from Leonard Ray, Vice President for Business Development, Atlantic Engineering Group, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Att. 2 at 3 (filed June 2, 2004) (Atlantic Engineering Group June 2 *Ex Parte* Letter).

[27]*See, e.g.*, ALTS Comments at 6, 16; AT&T Comments at 10-11; NuVox *et al.* Comments at 8; Letter from Walter Steimel, Jr., Counsel for FTTH Council, to Marlene H. Dortch, Secretary, FCC, CC Docket no. 01-338, Att. (filed Dec. 22, 2003) (FTTH Council Dec. 22 *Ex Parte* Letter).

[28]*See* para. 17, *infra.*

[29]According to AT&T, BellSouth's petition on FTTC loops may not be granted because the evidence relied upon could have been filed during the *Triennial Review* proceeding, but was not. AT&T Comments at 12 (citing 47 C.F.R. § 1.429(b)). As we held in the *MDU Reconsideration Order*, even if we were to determine that BellSouth's petition is procedurally flawed under section 1.429(b)(1) and (2) of our rules, the importance to broadband deployment of the reconsideration and clarification we grant would warrant our discretionary review of the substance of the petition. *MDU Reconsideration* Order, para. 4 n.10; *see also* 47 C.F.R. § 1.429(b)(3)(a petition that relies on facts not previously presented to the Commission will be granted where "[t]he Commission determines that consideration of the facts relied on is required in the public interest."). Therefore, we need not address the procedural issue raised by AT&T.

[30]As noted above, FTTC deployments often also include coaxial cable distribution facilities, in addition to copper. *See supra*, n.1. We do not include a reference to coaxial cable in our definition of FTTC loops, however, because there may be some FTTC deployments where it is not needed, and because the referenced copper distribution facility – which is present in all FTTC deployments – sufficiently clarifies the scope of FTTC deployments.

premise, carriers can provide broadband services comparable to that provided by FTTH architecture, including data speeds of 10 megabits per second (Mbps) in addition to high definition multi-channel video services.[31] Indeed, we note that a 500 foot maximum copper loop length is the standard issued by Telcordia for FTTC loops, and reflects industry consensus that, over short distances, copper exhibits very little impedance, thereby enabling significant capacity for advanced services.[32] We further specify that the fiber transmission facility in a FTTC loop must connect to copper distribution plant at a serving area interface from which every other copper distribution subloop also is not more than 500 feet from the respective customer's premise. We do this to ensure that our unbundling relief is targeted to FTTC deployments that are designed to bring increased advanced services capability to users, rather than extended to other hybrid loop deployments that coincidentally happen to have individual loops with less than 500 feet or less of copper.

11. We decide to grant further unbundling relief for FTTC loops for two reasons. First, we conclude that requesting carriers are not impaired in greenfield areas and face only limited impairment without access to FTTC loops where FTTC loops replace pre-existing loops. Second, as with FTTH loops, competitive LECs deploying FTTC loops have increased revenue opportunities through the ability to offer voice, multi-channel video, and high-speed data services.[33] As the Commission found with respect to FTTH loops in the *Triennial Review Order*, the substantial revenue opportunities that arise from offering this "triple play" of services helps ameliorate many of the entry barriers presented by the costs and scale economies.[34]

12. First, with respect to new FTTC deployments ("greenfield" deployments), we find that competitive LECs face similar barriers to deployment as incumbent LECs.[35] In the *Triennial Review Order*, the Commission found that entry barriers for FTTH deployments were largely the same for incumbent and competitive carriers.[36] We find that this conclusion remains valid regardless of the loop technology deployed, and thus equally applies to greenfield deployments of FTTC loops. In particular, when deploying FTTC loops in greenfields, both incumbent LECs and competitive LECs "must negotiate

[31] *See* Marconi Reply at 4-5; Letter from Stephen L. Goodman, counsel for Marconi, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Att. at 6 (filed Dec. 3, 2003) (Marconi Dec. 3 *Ex Parte* Letter).

[32] *See* Marconi Reply at 5-6; Catena Comments at 9.

[33] *See Triennial Review Order*, 18 FCC Rcd at 17142-43, para. 274 (discussing evidence from Corning that carriers can earn a greater return on their FTTH investment due to the ability to offer voice, data, video, and other services); BellSouth Petition at 7 (asserting that "FTTC affords carriers the same revenue opportunities as FTTH"); *see also* HTBC Comments at 9-10; Catena Comments at 9-10; Marconi Reply at 9.

[34] *Triennial Review Order*, 18 FCC Rcd at 17142-43, para. 274.

[35] BellSouth Petition at 6-7; BellSouth Reply at 4; Catena Comments at 10, 12; HTBC Comments at 9; Marconi Reply at 12; SBC Comments at 6-7. This conclusion is not diminished by the claims of competitive LECs that, unlike the evidence of competitive FTTH deployment relied upon in the *Triennial Review Order*, there is little evidence of competitive LEC deployment of FTTC loops or other hybrid loops to suggest that competing carriers are not impaired in the absence of unbundling. AT&T Comments at 12, 14. While competitive deployment of facilities is evidence that there is no impairment, the absence of such evidence does not *prove* that competing carriers are impaired without unbundled access to such facilities. *Triennial Review Order*, 18 FCC Rcd at 17042-43, para. 94. Further, there is evidence that competing LECs have, in fact, deployed FTTC. Marconi Reply at 10.

[36] *Triennial Review Order*, 18 FCC Rcd at 17143, para. 275.

rights-of-way, respond to bid requests for new housing developments, obtain fiber optic cabling and other materials, develop deployment plans, and implement construction programs."[37] Nor do incumbent LECs have any advantages with respect to the sunk costs of FTTC loops – "both incumbent LECs and competitive LECs are faced with the same issue[s] in their deployment of such loops."[38] Accordingly, as with FTTH loops, we find that competitive carriers are not impaired without access to FTTC loops in greenfield deployments. However, just as overbuild FTTH deployments "merit[] slightly different treatment than greenfield FTTH deployments," so, too, do overbuild FTTC deployments.[39] In particular, deploying FTTC loops in overbuild situations "enables an incumbent LEC to replace and ultimately deny access to the already-existing copper loops that competitive LECs were using to serve mass market customers."[40] Thus, in the overbuild context, we find that competitive LECs face impairment to a limited extent.

13. Second, as we did in the *Triennial Review Order*, we utilize the discretion under our section 251(d)(2) "at a minimum" authority to consider the statutory goals of section 706 which requires us to encourage the deployment of advanced telecommunications capability to all Americans.[41] We conclude that subjecting FTTC loops to the same unbundling framework adopted for FTTH loops furthers the goals of section 706. The record here demonstrates that further reducing the unbundling obligations associated with FTTC loops would eliminate disincentives to invest in broadband facilities and, therefore, further section 706's goals.[42] FTTC architecture offers considerable capability for providing advanced services, including the ability to offer voice, multi-channel video, and high speed data services.[43] We thus expect FTTC deployments to lead to the offering of this "triple play" of services to end-users, furthering the goals of section 706. In addition, the record indicates that, particularly in the overbuild context, FTTC loops require substantial investment, more akin to FTTH loops. FTTC architecture requires the deployment of new serving area interfaces, and the associated deployment of new loop plant.[44] Consequently, we conclude that, treating FTTC loops the same as FTTH loops will encourage carriers to further deploy fiber architectures necessary to deploy broadband services to the mass market, and the benefits of such deployment outweigh the limited impairment that competitive carriers face.[45] We therefore reconsider our determination in the *Triennial Review Order* that FTTC

[37]*Triennial Review Order*, 18 FCC Rcd at 17143, para. 275; BellSouth Petition at 6-7; Catena Comments at 10; HTBC Comments at 9; BellSouth Reply at 4; Marconi Reply at 11.

[38]*Triennial Review Order*, 18 FCC Rcd at 17143, para. 275; BellSouth Petition at 6-7; HTBC Comments at 9; BellSouth Reply at 4; Marconi Reply at 11.

[39]*Triennial Review Order*, 18 FCC Rcd at 17144, para. 276.

[40]*Triennial Review Order*, 18 FCC Rcd at 17144, para. 277.

[41]*See Triennial Review Order*, 18 FCC Rcd at 17121, para. 234. The D.C. Circuit affirmed the Commission's use of the "at a minimum" clause in this manner to consider investment disincentives pursuant to section 706. *USTA II*, 359 F.3d at 580.

[42]BellSouth Reply at 5-6; Marconi Reply at 13-16.

[43]*See, e.g.*, BellSouth Petition at 4; Marconi Reply at 5-6; Catena Comments at 9; Marconi Dec. 3 *Ex Parte* Letter, Att. at 6.

[44]BellSouth Reply at 4.

loops should be characterized as hybrid loop architecture for the purpose of our unbundling regulations, and revise our broadband loop unbundling rules to regulate FTTC loops in the same manner as adopted for FTTH loops in the *Triennial Review Order* and the *MDU Reconsideration Order*.

14. Accordingly, we do not require incumbent LECs to provide unbundled access to new mass market FTTC loops for either narrowband or broadband services. In overbuild situations, because incumbent LECs have an entry barrier within their sole control, we conclude, as with FTTH loops, that competitive LECs should have continued access to either a copper loop or a 64 kbps transmission path in those situations.[46] Finally, we note that, consistent with our recent *MDU Reconsideration Order*, FTTC loops serving predominantly residential MDUs will be subject to the same unbundling relief as FTTH loops.

15. In reaching this determination, we reject competitive LEC commenters' claims that because incumbent LECs already have deployed some FTTC networks, unbundling creates no disincentive to invest in such next-generation facilities.[47] The Commission previously confronted, and rejected, this argument as applied to other broadband loops. For example, the Commission found that, although hybrid loops had been deployed, they had not been deployed to their full capacity to deliver broadband services to mass market customers, and that unbundling also created disincentives for competitive LECs to invest in their own facilities.[48] The Commission also found that unbundling created disincentives for competitive LECs to invest in their own facilities.[49] In *USTA II*, the court upheld the Commission's reliance on such investment disincentives, even where there already had been some deployment of facilities.[50] We find that the same analysis is true with regard to FTTC loops. Although it is true that FTTC networks have been deployed to some extent, the deployment has been "far from ubiquitous," and we believe that the architecture has not been deployed to its full potential.[51] In addition, the record

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[45]The decision to grant additional unbundling relief for FTTC loops also is supported by our analysis of the state of intermodal competition. Cable companies have widely deployed broadband service, and are poised to offer cable telephony on a more widespread basis, providing them the ability to offer the voice, high-speed data, and multi-channel video triple play of services. *See Triennial Review Order*, 18 FCC Rcd at 17151, para. 292. Thus, we find that the FTTC loop unbundling relief we grant here will give incumbent LECs incentives to deploy advanced facilities allowing them to roll out their own triple play of services as cable competitors roll out theirs.

[46]*Triennial Review Order*, 18 FCC Rcd at 17144-45, para. 277; *see also* HTBC Comments at 9; BellSouth Reply at 4-5. We reject the claims of commenters that the ability to re-use existing copper facilities gives incumbent LECs an additional advantage in brownfield deployments. *See, e.g.*, Allegiance *et al.* Comments at 6; ALTS Comments at 8-9 n. 9; AT&T Comments at 14; AT&T Reply at 5 n.2. We find that incumbent LECs deploying FTTC loops in overbuild situations are not necessarily able to re-use existing copper loops due to the different network design associated with FTTC loops. *See* BellSouth Reply at 4.

[47]*See, e.g.*, Allegiance *et al.* Comments at 11-12; ALTS Comments at 5; AT&T Comments at 6-11; MCI Comments at 9-10; NuVox *et al.* Comments at 8; PACE Comments at 11; Sprint Comments at 8.

[48]*Triennial Review Order*, 18 FCC Rcd at 17150, para. 290.

[49]*Id.*

[50]*USTA II*, 359 F.3d at 581-82.

[51]*Id.* (observing that while some deployment of fiber feeder and associated broadband technology had occurred, deployment had not been widespread). Indeed, the record indicates that even within BellSouth territory, 93% of (continued....)

demonstrates that the costs of unbundling hinder deployment of FTTC loops that otherwise would occur.[52] We believe that by providing unbundling relief to FTTC loops, incumbent LECs will be encouraged to further deploy FTTC loops and make the required investments to provide advanced services over those facilities, just as our unbundling relief for FTTH loops has provided incentives for carriers to invest in such facilities.[53]

16. Moreover, we conclude that denying unbundled access to FTTC loops will provide competitive LECs incentives to "seek innovative access options, including the deployment of their own facilities necessary for providing broadband services to the mass market."[54] As with FTTH loops, both incumbent LECs and competitive LECs have comparable abilities to undertake the investment risk associated with deploying FTTC facilities. The *USTA II* court recognized that "[a]n unbundling requirement under these circumstances seems likely to delay infrastructure investment, with CLECs tempted to wait for ILECs to deploy FTTH and ILECs fearful that CLEC access would undermine the investments' potential return. Absence of unbundling, by contrast, will give all parties an incentive to take a shot at this potentially lucrative market."[55]

17. We also reject the claims of competitive LECs that BellSouth's deployment of FTTC loops to date has not resulted in the provision of advanced services, and thus such deployment does not further the goals of section 706.[56] First, BellSouth demonstrates that it is preparing to offer, and in some cases

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users do not have access to FTTC loops. Letter from Jonathan Banks, General Attorney, BellSouth to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Att. at 2-3 (filed July 13, 2004) (BellSouth July 13 *Ex Parte* Letter).

[52]Marconi Dec. 3 *Ex Parte* Letter, Att. at 2.

[53]In particular, BellSouth, Verizon and SBC issued a Request for Quote for passive optical networking solutions and Verizon and SBC both have announced specific FTTH loop deployment plans. Letter from Dan Tatarka, Executive Director, FTTH Council, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 at 11 (filed Feb. 13, 2004) (FTTH Council Feb. 13 *Ex Parte* Letter); *see also, e.g.*, Catena Comments at 7-8 (noting increased demand for equipment); Verizon News Release, *Verizon, in Historic First, Begins Large Scale Rollout of Advanced Fiber-Optic Technology with Keller, Texas, Deployment; Announces Plans for Offering New Services* (rel. May 19, 2004); SBC News Release, *SBC Communications Announces Advances in Initiative to Develop IP-Based Residential Network for Integrated Video, Internet, VoIP Services* (rel. June 22, 2004).

[54]*Triennial Review Order*, 18 FCC Rcd at 17150, para. 290; *see also* Marconi Reply at 14 (asserting that competing carriers have sought to avoid investing in their own facilities when they can take advantage of incumbent LECs' financial risk in deploying broadband facilities through unbundled access to such facilities); BellSouth July 13 *Ex Parte* Letter, Att. at 2-3 (contending that unbundling relief for FTTC loops will provide both incumbent LECs and competitive LECs to invest in FTTC loops).

[55]*USTA II*, 359 F.3d at 584.

[56]AT&T Comments at 6-11, 20; NuVox *et al.* Comments at 6; PACE Comments at 11; Atlantic Engineering Group June 2 *Ex Parte* Letter, Att. 2 at 3. In addition, some commenters note that the long-term future capabilities of entirely fiber architectures exceed that of fiber architectures that include even a small amount of copper, such as FTTC loops. *See, e.g.*, Letter from Ruth Milkman, Counsel for MCI, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Att. at 2 (filed July 1, 2004); FTTH Council Feb. 13 *Ex Parte* Letter at 7; Letter from Jonathan Askin, ALTS, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, at 6 (filed Jan. 23, 2004). However, as the Commission concluded in the *MDU Recon Order*, where facilities today provide the capability of offering broadband capability that is enhanced compared to copper networks (or even other hybrid loop architectures), the goals of section 706 are furthered by the deployment of such facilities. *MDU Reconsideration Order*, para. 11 n.33. (continued....)

already is offering, advanced services over its FTTC facilities.[57] Second, our decision to provide unbundling relief for FTTC loops is to ensure that regulatory disincentives are removed for *all* carriers seeking to provide advanced services using FTTC technology. Indeed, other commenters cite evidence that FTTC loops are being used to provide advanced services, further indicating that carriers deploying FTTC loops do so to offer advanced services.[58] We therefore expect that carriers deploying FTTC loops will offer advanced services, such as the triple play of voice, multi-channel video, and high-speed data, using those facilities. Third, because the section 706 mandate requires the Commission to encourage the deployment of advanced telecommunications capability, the Commission is required to make a predictive judgment regarding the impact of its actions. With regard to FTTH loops, the Commission concluded that removing most unbundling obligations would promote deployment of such facilities.[59] We believe that similar treatment of FTTC loops will have a similar impact and will lead to additional deployment of FTTC architectures, as well as advanced services to mass market customers. Finally, in order to ensure that our new rules promote the goals of section 706, we tailor unbundling relief to those FTTC deployments specifically designed to bring advanced services to users. Accordingly, we are requiring that, as an architectural matter, the fiber transmission facility in a FTTC loop must connect to copper distribution plant at a serving area interface from which every other copper distribution subloop also is not more than 500 feet from the respective customer's premise. In this manner, we provide those incumbents seeking to avail themselves of this unbundling relief an incentive to reconfigure their network to bring advanced services to the entire geographic area rather than permitting them to obtain unbundling relief where, by happenstance, there may be an existing loop with 500 feet or less copper distribution.

18. Some commenters express concern that if unbundling relief is tailored on an architectural basis, they might have difficulty identifying which loops are FTTC loops.[60] BellSouth responds that both FTTC loops and FTTH loops bear an information code in their systems distinguishing those loops from other types of loop facilities, allowing competitive LECs to know in advance whether a particular loop is a FTTC loop or FTTH loop.[61] We agree that it is important for requesting carriers to have the necessary information about whether particular loops would qualify as FTTC loops or FTTH loops, and we thus reiterate the requirement, stated in the *UNE Remand Order*, that incumbent LECs' OSS must provide competitive LECs with nondiscriminatory access to the same detailed information about the loop that is available to itself and such information must be provided to competitive LECs in the same time frame as provided to its own personnel.[62]

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Since FTTC loops provide such advanced services capability, we reject commenters' claims that the differences between FTTH loops and FTTC loops preclude granting equivalent unbundling regulation for those architectures.

[57]BellSouth Reply at 6.

[58]*See, e.g.*, Marconi Reply at 10 (citing customers of Marconi FTTC equipment that are providing voice, video and data services).

[59]*Triennial Review Order*, 18 FCC Rcd at 17145, para. 278. We note that the evidence available to date indicates that we were correct in our prediction. *See supra*, note 35.

[60]*See, e.g.*, Allegiance *et al.* Comments at 10; NuVox *et al.* Comments at 5, 9.

[61]BellSouth Reply at 6.

[62]*See* 47 C.F.R. § 51.307(e) ("An incumbent LEC shall provide to a requesting telecommunications carrier technical information about the incumbent LEC's network facilities sufficient to allow the requesting carrier to achieve access (continued....)

19. We also disagree with the assertion of some commenters that we should refrain from providing further unbundling relief for FTTC loops because FTTH architecture is a superior technology, and additional unbundling relief for FTTC loops would reduce carriers' incentives to deploy FTTH loops.[63] The FTTH loop rules adopted in the *Triennial Review Order* and the *MDU Reconsideration Order*, and the FTTC loop unbundling rules adopted in this Order are intended to promote the goals of section 706, rather than to promote the deployment of a single, specific next-generation network technology. Comments indicate that both FTTH loops and FTTC loops have their respective merits and shortcomings based on particular economic and technological factors, and we conclude that the decision concerning which broadband technologies to deploy is best left to individual carriers operating in the market to decide.[64] We decline to second-guess or skew those technology choices with our unbundling requirements.

B. Network Modification Rules

20. In the *Triennial Review Order*, the Commission required incumbent LECs to make routine network modifications to unbundled transmission facilities used by competitive carriers where the requested transmission facility has already been constructed.[65] In defining the term "routine network modification" the Commission concluded that incumbent LECs must perform those modifications that they would regularly perform for their own retail customers.[66] In the Triennial Review Order, we prohibited "any incumbent LEC practice, policy or procedure that has the effect of disrupting or degrading access to the TDM-based features, functions, and capabilities of hybrid loops."[67] BellSouth and SureWest request clarification on the applicability of this precedent to "packet-based networks."[68] Our rules limit the unbundling obligations placed on hybrid loop, FTTH loop, and now FTTC loop

(Continued from previous page)
to unbundled network elements consistent with the requirements of this section."); *see also 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, 3885-86, paras. 428-29 (1999) (*UNE Remand Order*).

[63] *See, e.g.*, ALTS Comments at 6, 16; AT&T Comments at 10-11; NuVox *et al.* Comments at 8; FTTH Council Dec. 22 *Ex Parte* Letter, Att.

[64] *See, e.g.*, HTBC Comments at 10 ("Carriers should be permitted to design their networks based on technological and economic considerations, such as the ability to share electronics across several customers or to power electronics either in the field or at the customer's premises."); Catena Comments at 10 (Carriers "should decide which fiber architecture to deploy based on the technical and economic merits of FTTC and FTTH, note because of the differing regulatory treatment that currently applies to these two architectures."); Letter from Sean A. Lev, Counsel for Advanced Fibre Communications, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338, Att. at 10 (noting that different locations may be more suitable for FTTH loops or FTTC loops based on the geography, demographics, and construction required); FTTH Council Dec. 22 *Ex Parte* Letter, Att. at 18-24 (business case analysis supporting the deployment of FTTH loops).

[65] *Triennial Review Order*, 18 FCC Rcd at 17371-72, para. 632.

[66] *Id.*

[67] *Triennial Review Order*, 18 FCC Rcd at 17153, para. 294. In *USTA II*, the D.C. Circuit upheld the Commission's network modification rules. *USTA II*, 359 F.3d at 577-78.

[68] BellSouth Petition at 17; SureWest Petition at 8.

deployment. Accordingly, we clarify that incumbent LECs are not obligated to build TDM capability into new packet-based networks or into existing packet-based networks that never had TDM capability.[69]

21. Verizon states that where incumbent LECs deploy new FTTH loops or FTTC loops using packet-based equipment, they nevertheless may need to hand off a signal to some customers in TDM format in order to be compatible with an end user's customer premises equipment.[70] We recognize that where an incumbent has deployed FTTH or FTTC loops some customers may require a modest format translation, typically at the customer premises, to make packet-based signals compatible with legacy customer premises equipment. We clarify that the existence of this "TDM handoff," as described above and in Verizon's ex parte, does not change the scope of the Commission's unbundling relief.

III. PROCEDURAL MATTERS

A. Supplemental Final Regulatory Flexibility Analysis

22. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[71] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *NPRM*.[72] The Commission sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. In the *Triennial Review Order*, the Commission issued a Final Regulatory Flexibility Analysis (FRFA) addressing comments submitted with regard to the IRFA.[73] This present Order addresses issues raised by two petitions for reconsideration of the *Triennial Review Order*. Specifically, the Order modifies the unbundling rules governing fiber-to-the-curb (FTTC) loops in response to a petition from BellSouth. The Order also clarifies existing rules regarding network modifications in response to petitions from BellSouth and SureWest. This present Supplemental FRFA (Supplemental FRFA) conforms to the RFA.[74]

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[69] Of course, our rules addressing routine network modifications and access to existing TDM capabilities of hybrid loops apply only where the loop transmission facilities are subject to unbundling, and do not apply to FTTH loops or to the FTTC loops.

[70] Verizon Oct. 6 *Ex Parte* Letter at 2.

[71] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[72] *See 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) (*NPRM*).

[73] *See 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, 17416-442, paras. 730-86 (2003) (*Triennial Review Order*) (subsequent history omitted).

[74] *See* 5 U.S.C. § 604.

1. Need for, and Objectives Of, the Rule

23. In response to BellSouth's petition for reconsideration of the *Triennial Review Order*, this Order promotes investment in broadband facilities through the implementation of the unbundling requirements of section 251 of the Act. Specifically, the Order concludes that the fiber-to-the-home (FTTH) rules, which relieve the incumbent LECs from certain unbundling obligations, will also apply to FTTC loops. Specifically, a FTTC loop is a fiber transmission facility connecting to copper distribution plant that is not more than 500 feet from the customer's premise. The Commission further specifies that the fiber transmission facility in a FTTC loop must connect to copper distribution plant at a serving area interface from which every other copper distribution subloop also is not more than 500 feet from the respective customer's premise. In the *Triennial Review Order* released last year, the Commission concluded that the broadband capabilities of FTTH loops would be relieved from unbundling under section 251 of the Act. Today's action builds on the broadband principles of the *Triennial Review Order* by further extending the unbundling relief FTTC loops. In this Order, the Commission concludes that, as with FTTH, competitors are not impaired without access to FTTC loops in new build ("greenfield") situations. While requesting carriers may face limited impairment in overbuild ("brownfield") situations, that is addressed by requiring unbundled access to a 64 kbps channel or unbundled access to spare copper facilities. Based on this analysis of impairment and the section 706 balancing of investment incentives against the costs of unbundling for FTTC, the Commission concludes that FTTC loops should have the same unbundling relief as FTTH loops.[75]

24. Petitions by BellSouth and SureWest also sought clarification whether the Commission's existing unbundling rules require incumbent LECs to build time division multiplexing (TDM) capabilities into networks at the request of competitive LECs. Consequently, this Order clarifies that incumbent LECs are not required to add TDM capabilities into new packetized transmission facilities. In addition, the Order also clarifies that where an incumbent LEC has deployed FTTH or FTTC loops using packet-based equipment, and they nevertheless need to hand off a signal to some customers in TDM format in order to be compatible with an end user's customer premises equipment, this "TDM handoff" does not change the scope of unbundling relief.

2. Summary of Significant Issues Raised by the Public

25. The subject petitions for reconsideration were not submitted in response to the previous FRFA, and did not address the FRFA.

3. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Would Apply

26. 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.[76] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[77] In addition, the term "small business" has the same meaning as

[75]For a more detailed discussion of the impairment analysis and section 706 balancing, *see supra* paras. 11-19.

[76]5 U.S.C. § 604(a)(3).

[77]5 U.S.C. § 601(6).

the term "small business concern" under the Small Business Act.[78] 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).[79]

27. In this section, we further describe and estimate the number of small entity licensees and regulatees that may be affected by the revised rule adopted in this Order. 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.[80] The SBA has developed small business size standards for wireline small businesses within the commercial census category of Wired Telecommunications Carriers.[81] Under this category, a 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.

28. We have included small incumbent local exchange carriers 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."[82] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not "national" in scope.[83] We have therefore included small incumbent local exchange carriers in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

29. *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.[84] According to Census Bureau data for 1997, there were 2,225 firms in this category, total,

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[78] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity 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."

[79] 15 U.S.C. § 632.

[80] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, "Trends in Telephone Service" at Table 5.3, Page 5-5 (Aug. 2003) (*Trends in Telephone Service August 2003 Report*). This source uses data that are current as of December 31, 2001.

[81] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517110.

[82] 15 U.S.C. § 632.

[83] 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).

[84] 13 C.F.R. § 121.201, NAICS code 517110.

that operated for the entire year.[85] 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.[86] Thus, under this size standard, the majority of firms can be considered small.

30. *Incumbent Local Exchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange 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.[87] According to Commission data,[88] 1,337 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,337 carriers, an estimated 1,032 have 1,500 or fewer employees and 305 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.

31. *Cable and Other Program Distribution.* In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution,[89] which includes all such companies generating $12.5 million or less in annual receipts.[90] 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.[91] 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.[92] 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.

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

32. In this Order, we conclude that FTTC loops will be subject to the same unbundling obligations as FTTH loops. This rule modification will relieve the providers of such broadband loops from unbundling obligations under section 251 of the Act. This relieved a section 251 unbundling requirement currently placed on such providers.

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[85] 1997 Economic Census, Establishment and Firm Size, Table 5, NAICS code 513310 (issued Oct. 2000).

[86] *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."

[87] 13 C.F.R. § 121.201, North American Industry Classification System (NAICS) code 517110.

[88] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, "Trends in Telephone Service" at Table 5.3, Page 5-5 (Aug. 2003) (*Trends in Telephone Service August 2003 Report*). This source uses data that are current as of December 31, 2001.

[89] 13 C.F.R. § 121.201, NAICS code 517510.

[90] *Id.*

[91] U.S. Census Bureau, 1997 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 4 (issued October 2000).

[92] *Id.*

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

33. The RFA requires an agency to describe any significant alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."[93]

34. In this Order, we conclude that FTTC loops should be governed by the FTTH loop rules. The Order considered, and rejected, the alternative of retaining the existing unbundling obligations for FTTC. The Order reached this conclusion by applying principles established in the *Triennial Review Order* to more precisely calibrate the Commission's policy for broadband loops. In response to petitions for reconsideration requesting that the Commission look more closely at the unbundling requirements for FTTC loops, the Order considers potential impairment faced by requesting carriers and weighs section 706's broadband deployment goals, and concludes that the record demonstrates that FTTC loops should have the same unbundling relief as FTTH loops. Although this rule will deny unbundling to competitive carriers seeking to serve customers served by FTTC loops, the Commission concluded that requesting carriers face no impairment in greenfield situations and only limited impairment in brownfield situations, which is addressed through access to a 64 kbps channel or a spare copper facility. Further, such unbundling relief was necessary to remove disincentives for incumbent LECs to deploy FTTC facilities.[94] Alternatives considered, including the denial of such unbundling relief to FTTC, were not adopted because they do not accomplish the Commission's objectives in this proceeding of promoting broadband deployment.[95]

35. **Report to Congress:** The Commission will send a copy of the Order, including this Supplemental FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.[96] In addition, the Commission will send a copy of the Order, including this Supplemental FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Order and Supplemental FRFA (or summaries thereof) will also be published in the Federal Register.

B. Final Paperwork Reduction Act Analysis

36. This document does not contain new or modified information collection requirements 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).

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[93] 5 U.S.C. § 603(c)(1) – (c)(4).

[94] *See* paras. 7-8, *supra*.

[95] *See* paras. 7-9, *supra*.

[96] *See* 5 U.S.C. § 801(a)(1)(A).

IV. ORDERING CLAUSES

37. IT IS ORDERED that, pursuant to the authority contained in sections 2, 4(i)-4(j), 10(d), 201, 251, 303(r), and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 152, 154(i)-4(j), 160(d), 201, 251, 303(r), 706 this Order on Reconsideration IS ADOPTED, and that part 51 of the Commission's rules, 47 CFR part 51, is amended as set forth in Appendix B of the Order. The requirements of this Order shall become effective 30 days after publication in the federal register.

38. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 2, 4(i)-4(j), 10(d), 201, 251, 303(r), and 706 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 152, 154(i)-4(j), 160(d), 201, 251, 303(r), and 706, the petition for reconsideration filed by BellSouth IS GRANTED IN PART.

39. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Order, including the Supplemental 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

Comments	Abbreviation
Association for Local Telecommunications Services	ALTS
Allegiance Telecom *et. al*	
AT&T Corporation	AT&T
BellSouth Corporation	BellSouth
Catena Networks , Inc.	Catena
Cellular Mobile Systems of St Cloud	
Covad Communications	Covad
El Paso Networks/Fibernet/ McLeodUSA	
High Tech Broadband Coalition	
MCI	MCI
New South Communication, Inc./ Comptel, Inc./ Ascent Alliance	
PACE Coalition	PACE
Qwest Communications	Qwest
Rural Independent Competitive Alliance	RICA
SBC Communications, Inc.	SBC
Sprint Communications, Inc.	Sprint
Talk America Inc./ Nu Vox Inc./ XO Communications Inc.	
Verizon Communications, Inc.	Verizon
Z-Tel Communications, Inc.	

Reply Comments	
Allegiance Telecom *et. al.*	
AT&T Corporation	AT&T
AT&T Wireless	
BellSouth Corporation	
Coalition for High-Speed Online Internet Competition and Enterprise	CHOICE
Earthlink, Inc.	
El Paso Networks/Fibernet/McLeodUSA	
Marconi Corporation	Marconi
National Association of State Utility Consumer Advocates	NASUCA
Nextel Communications	
Qwest Communications	Qwest
SBC Communications, Inc.	SBC
SureWest Communications	SureWest
Telecommunications Research and Action Center *et.al.*	
T-Mobile USA, Inc.	
Verizon Communications, Inc.	

APPENDIX B – FINAL RULES

PART 51 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 51 – SPECIAL PROVISIONS CONCERNING BELL OPERATING COMPANIES

40. Section 51.319 is amended by revising paragraph (a)(3) as follows:

§ 51.319 Specific unbundling requirements.

(a) ***

(3) Fiber loops.

(i) Definitions.

(A) Fiber-to-the-home loops. A fiber-to-the-home loop is a local loop consisting entirely of fiber optic cable, whether dark or lit, serving an end user's customer premises or, in the case of predominantly residential multiple dwelling units (MDUs), a fiber optic cable, whether dark or lit, that extends to the multiunit premises' minimum point of entry (MPOE).

(B) Fiber-to-the-curb loops. A fiber-to-the-curb loop is a local loop consisting of fiber optic cable connecting to a copper distribution plant that is not more than 500 feet from the customer's premises or, in the case of predominantly residential MDUs, not more than 500 feet from the MDU's MPOE. The fiber optic cable in a fiber-to-the-curb loop must connect to a copper distribution plant at a serving area interface from which every other copper distribution subloop also is not more than 500 feet from the respective customer's premises.

(ii) New builds. An incumbent LEC is not required to provide nondiscriminatory access to a fiber-to-the-home loop or a fiber-to-the-curb loop on an unbundled basis when the incumbent LEC deploys such a loop to a residential unit that previously has not been served by any loop facility.

(iii) Overbuilds. An incumbent LEC is not required to provide nondiscriminatory access to fiber-to-the-home loop or a fiber-to-the-curb loop on an unbundled basis when the incumbent LEC has deployed such a loop parallel to, or in replacement of, an existing copper loop facility, except that:

(A) The incumbent LEC must maintain the existing copper loop connected to the particular customer premises after deploying the fiber-to-the-home loop or the fiber-to-the-curb loop and provide nondiscriminatory access to that copper loop on an unbundled basis unless the incumbent LEC retires the copper loops pursuant to paragraph (a)(3)(iii) of this section.

(B) An incumbent LEC that maintains the existing copper loops pursuant to paragraph (a)(3)(ii)(A) of this section need not incur any expenses to ensure that the existing copper loop remains capable of transmitting signals prior to receiving a request for

access pursuant to that paragraph, in which case the incumbent LEC shall restore the copper loop to serviceable condition upon request.

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

(iv) Retirement of copper loops or copper subloops. Prior to retiring any copper loop or copper subloop that has been replaced with a fiber-to-the-home loop or a fiber-to-the-curb loop, an incumbent LEC must comply with:

(A) The network disclosure requirements set forth in section 251(c)(5) of the Act and in § 51.325 through § 51.335;and

(B) Any applicable state requirements.

*****

41. Section 51.325 is amended by revising paragraph (a)(4) to read as follows:

§ 51.325 Notice of network changes: Public notice requirement.

(a) ***

(4) Will result in the retirement of copper loops or copper subloops, and the replacement of such loops with fiber-to-the-home loops or fiber-to-the-curb loops, as those terms are defined in § 51.319(a)(3).

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42. Section 51.331 is amended by revising paragraph (c) to read as follows:

§ 51.331 Notice of network changes: Timing of notice.

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(c) Competing service providers may object to incumbent LEC notice of retirement of copper loops or copper subloops and replacement with fiber-to-the-home loops or fiber-to-the-curb loops in the manner set forth in § 51.333(c).

43. Section 51.333 is amended by revising paragraphs (b) and (c) introductory text, and by revising paragraph (f) to read as follows:

§ 51.333 Notice of Network Changes: Short term notice, objections thereto and objections to retirement of copper loops or copper subloops.

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(b) Implementation date. The Commission will release a public notice of filings of such short term notices or notices of replacement of copper loops or copper subloops with fiber-to-the-home loops or fiber-to-the-curb loops. The effective date of the network changes referenced in those filings shall be subject to the following requirements:

(i) Short term notice. Short term notices shall be deemed final on the tenth business day after the release of the Commission's public notice, unless an objection is filed pursuant to paragraph (c) of this section.

(ii) Replacement of copper loops or copper subloops with fiber-to-the-home loops or fiber-to-the-curb loops. Notices of replacement of copper loops or copper subloops with fiber-to-the-home loops or fiber-to-the-curb loops shall be deemed approved on the 90th day after the release of the Commission's public notice of the filing, unless an objection is filed pursuant to paragraph (c) of this section. Incumbent LEC notice of intent to retire any copper loops or copper subloops and replace such loops or subloops with fiber-to-the-home loops or fiber-to-the-curb loops shall be subject to the short term notice provisions of this section, but under no circumstances may an incumbent LEC provide less than 90 days notice of such a change.

(c) Objection procedures for short term notice and notices of replacement of copper loops or copper subloops with fiber-to-the-home loops or fiber-to-the-curb loops. An objection to an incumbent LEC's short term notice or to its notice that it intends to retire copper loops or copper subloops and replace such loops or subloops with fiber-to-the-home loops or fiber-to-the-curb loops may be filed by an information service provider or telecommunications service provider that directly interconnects with the incumbent LEC's network. Such objections must be filed with the Commission, and served on the incumbent LEC, no later than the ninth business day following the release of the Commission's public notice. All objections filed under this section must:

*****

(f) Resolution of objections to replacement of copper loops or copper subloops with fiber-to-the-home loops or fiber-to-the-curb loops. An objection to a notice that an incumbent LEC intends to retire any copper loops or copper subloops and replace such loops or subloops with fiber-to-the-home loops or fiber-to-the-curb loops shall be deemed denied 90 days after the date on which the Commission releases public notice of the incumbent LEC filing, unless the Commission rules otherwise within that time. Until the Commission has either ruled on an objection or the 90-day period for the Commission's consideration has expired, an incumbent LEC may not retire those copper loops or copper subloops at issue for replacement with fiber-to-the-home loops or fiber-to-the-curb loops.

STATEMENT OF CHAIRMAN MICHAEL K. POWELL

Re: Review of the Section 251 Unbundling Obligations for Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 (CC Docket Nos. 01-338, 96-98); Deployment of Wireline Services Offering Advanced Telecommunications Capability (CC Docket No. 98-147), Order on Reconsideration

Deep fiber networks offer consumers a "triple play" of voice, video and data services and an alternative to cable. By limiting the unbundling obligations of incumbents when they roll out deep fiber networks to residential consumers, we restore the marketplace incentives of carriers to invest in new networks.

This item follows on from the *Triennial Review Order*, where the Commission limited the unbundling obligations imposed on mass market fiber-to-the-home (FTTH) deployments to remove disincentives to the deployment of advanced telecommunications facilities in the mass market. These measures have proven a success in driving the deployment of next generation broadband. Today's order promotes incumbent LEC investment in broadband facilities by extending the FTTH rules to fiber-to-the-curb (FTTC) loops, as well. FTTC and FTTH technologies have different technological and cost characteristics. Carriers are continually evaluating new equipment and transmission technologies that offer exceptionally fast connections. This dynamic may lead individual carriers to prefer different FTTH or FTTC technologies in different circumstances. The approach in this item is to ensure that regulation does not skew that choice one way or another – so long as consumers receive the fully panoply of next-generation services. Our Section 706 interests are satisfied when consumers experience speed of 20 Mbs or higher, speeds that are well in excess of today's DSL or cable modem services.

There is, however, an important limiting principle in this item: our rules demand that carriers deploy fiber deep into neighborhoods – within 500 feet of a customers' home. Our policy is designed to remove regulatory barriers to these risky investments; but we will remain watchful of requests that would back the Commission up from the broadband future. Consumers deserve information at the speed of light and by taking action today, we move one step closer to that result.

STATEMENT OF COMMISSIONER KATHLEEN Q. ABERNATHY

Re: Review of 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

This Order represents an important step in the Commission's ongoing effort to encourage the deployment of next-generation broadband facilities to the mass market. In the Triennial Review Order, I strongly supported the Commission's decision to exempt fiber-to-the-home (FTTH) deployments from unbundling requirements. This relief was necessary to restore incentives to make substantial investments of capital, which come with no assurance of any near-term payoff. Because the factors supporting relief for FTTH are also applicable to fiber-to-the-curb (FTTC) deployments, I am pleased that we are now providing both architectural approaches the same degree of regulatory relief. In particular, FTTC requires massive capital expenditures, just as FTTH does, and unbundling significantly dampens investment incentives; and wireline carriers face substantial competition in the broadband market — particularly from cable operators — regardless of whether they deploy FTTH or FTTC. In light of these and other factors, I see no reason why our regulatory framework should favor one type of architecture over the other. Rather, deployment decisions should turn on business considerations.

As I noted in our recent Order extending FTTH relief to fiber loops serving predominantly residential multiple dwelling units, our deregulatory action is achieving its desired impact as carriers are accelerating plans to deploy fiber to the home. I am optimistic that this Order will further spur investment and, in turn, will prompt the delivery of exciting new broadband services to millions of consumers.

DISSENTING STATEMENT OF COMMISSIONER MICHAEL J. COPPS

Re: *Review of the Section 251 Unbundling Obligations for 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)*

Though today's Order speaks in glowing terms about broadband relief, the reality is far less radiant. I don't believe competitive telecommunications have been faring very well under our watch and this particular proceeding strikes me as yet another in a series of prescriptions this Commission is willing to write to end competitive access to last mile facilities. It seems every month brings a new onslaught.

I did not support the basic approach embraced here when the Commission set out to restrict access to fiber loops in the *Triennial Review*. So it will surprise no one that I do not support it here with the majority venturing even deeper into the denial of access to bottleneck facilities. By expanding the fiber-to-the-home unbundling exemption to fiber-to-the-curb architectures—a huge step even in light of the dramatic competitive restrictions in the *Triennial Review*—this decision restricts broadband competition for residential consumers. It also constitutes an ominous precedent for the small business community. Neither does it bode well for independent providers of VoIP services who don't own or control the physical layer of the network.

Here is why I think this approach is dangerous. The loop represents the prized last mile of communications. Putting it beyond the reach of competitors can only entrench incumbents who already hold sway. Monopoly control of the last mile created all kinds of problems for basic telephone service in the last century, and now we seem bent on replicating that sad story for advanced services in the digital age. Unfortunately, the digital age is going to take a lot longer to get here because of the blows we are inflicting on competition. In the *Triennial Review*, the majority started down a hazardous path. They began by exempting fiber-to-the-home loops from competition. Last summer the majority extended this exemption to "primarily residential" buildings. In doing so, they blurred the line between mass market and small business customers. As a result, millions of small businesses located in buildings that also have residential apartments are now going to be denied the enhanced services and lower prices that competition can bring. Now, today, the Commission treks even further down this road by exempting fiber-to-the-curb facilities from competition. And they add to the damage by adopting an incomprehensible routine network modification policy.

If we aren't going to listen to consumers, one would think this Commission would at least listen to the investors who wrote us again last week that our broadband policies are undermining competition, undermining facilities-based carriers who need last-mile access to service small business customers, and undermining the confidence of investors who want to put money into this kind of competition—in fact who have already done so!

It doesn't take a compass to see what direction this is heading. With fewer and fewer loops available to competitors, more and more control will be wrestled away from consumers and placed with the entrenched owner of the last mile facility. By shutting off the last mile to competitors, the Commission is not ushering in a new era of broadband. It is returning to the failed and non-competitive policies of the past. Residential consumers, small businesses, edge providers of VoIP and others who rely on competitive broadband will be stuck with the consequences, and the consequences will be with us for a long time and will, I predict, kick us further down that broadband penetration ladder where your country and mine now ranks Number 11. Number 11. I think the policy is wrong, I think it's dangerous, I think it runs against the direction set by Congress, and I feel compelled to dissent.

STATEMENT OF
COMMISSIONER KEVIN J. MARTIN

Re: *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*; Order on Reconsideration, CC Docket Nos. 01-338, 96-98, 98-147.

Today, the Commission continues its effort to promote the deployment of new broadband networks throughout the nation. Investment in broadband facilities and high-speed networks is critical to providing American consumers with 21st century advanced services and capabilities.

In providing the same regulatory relief for fiber-to-the-curb ("FTTC") loops as we established for fiber-to-the-premises ("FTTP") loops, we encourage the deployment of new packetized fiber networks and bring the potential for new advanced services closer to the American consumer.

I am pleased that today's action continues our effort to lift legacy regulations on new broadband investment. We also clarify that our intention was to preserve access to the incumbent LECs' existing network facilities, and to provide access to DS-1 loops only over TDM capable hybrid network facilities and not over packetized network facilities. In the Triennial Review Order, we held that ILECs need not unbundle their packet-based networks, including any packetized transmission path.

In particular, we recognize that where ILECs deploy new packet-based networks they nevertheless may need to hand-off a signal to some customers in TDM format in order to be compatible with an end user's customer premises equipment. The decision makes clear that carriers that choose to deploy new packet-based networks will not be required to unbundle their new packet-based networks regardless of whether they hand off a signal in a TDM format to any such customer.

I look forward to working with my colleagues on our on-going effort to ensure that we provide significant relief from legacy regulations to continue to spur investment and deployment of new packetized networks and facilities that will bring new broadband services to all Americans throughout the nation.

STATEMENT OF
COMMISSIONER JONATHAN S. ADELSTEIN
CONCURRING IN PART, DISSENTING IN PART

Re: Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Service Offering Advanced Telecommunications Capability, CC Docket Nos. 01-338, 96-98, 98-147

In this Order, we once again reconsider portions of our Triennial Review Order and our unbundling rules for high-speed fiber loops capable of delivering advanced data, video and voice service to the mass market. Throughout this proceeding, I have sought to take a careful and balanced view of the benefits and burdens of our unbundling rules. In our prior Orders, that approach led me to support measured unbundling relief for broadband investment in so-called "greenfield areas," where there is no existing loop plant and competitors and incumbents stand on equal footing. I concur in much of this Order in that I support granting targeted additional unbundling relief for "fiber-to-the curb" (FTTC) loops to serve mass market customers in greenfield areas. I cannot, however, join in the full decision because it is unnecessarily overbroad and lacks the analytical depth to address the specific requirements of the Act.

Ensuring that all Americans have reasonable and timely access to broadband services is our charge under the Act and is an issue of critical importance to the health of our economy and the vibrancy of our nation. I concur in today's decision because it extends symmetry to our treatment of two closely related network architectures, fiber-to-the-home (FTTH) and FTTC, each of which make possible the next generation broadband services that Congress directed us to promote. Given the close functional characteristics of FTTH and FTTC, I support the Order's conclusion that unbundling relief in greenfield areas should encourage investment in broadband facilities to serve mass market customers.

The decision to impose or lift unbundling requirements under section 251 is not a trivial matter. The Act's local competition provisions are of enormous importance to providers, both competitors and incumbents, alike, and, ultimately, to American consumers. Consistent with Congress' vision, where barriers to deployment are equivalent, we should give providers every incentive to invest in and roll-out next generation facilities that will bring the benefit of advanced services to American consumers. That is what the Commission does in the "greenfields" portion of this Order. I can only concur in my support, however, because I believe that this Order could have provided much more analytical depth. The Order is lacking in its factual consideration of impairment, failing to address in any comprehensive way the level of competition between incumbents and new entrants to deploy FTTC or FTTH loops. One predicate of the original Triennial Review Order was that unbundling relief would create incentives for both incumbents and competitors to deploy last mile FTTH loops. Yet, the Order includes no new analysis of the level of FTTH deployment to mass market customers by competitors, whether intramodal or intermodal, despite the fact that this approach has now been in place for well-over a year and it has been over two years since the record closed on the original proceeding.

The lack of analysis of deployment by competitors is perhaps more stark in the consideration of so-called brownfield developments, where providers are overbuilding their existing networks. In my view, the Commission once again fails to delve deeply to address these very different factual scenarios. I have similar concerns about the Order's revision of our network modification rules, which seems to invite more questions than it answers. Given this lack of evidence and analysis, I cannot join these portions of the Order.

I am also concerned that, despite the functional similarities between FTTH and FTTC architectures, the Commission moves the bar in this Order without a clear vision for the evolution of these technologies. By extending relief here we shift the clear distinctions drawn between FTTH loops and "hybrid loops," which use combinations of fiber and copper technology and which warranted a separate analysis and regulatory treatment under our previous orders. While this Order rests on standards for functionality supported by industry consensus, I question whether the Order articulates a clear standard that will serve us for long in this quickly evolving technological marketplace.

This Order does respond partially to one of my chief concerns about our prior Order concerning fiber-to-multi-dwelling units, adopted earlier this year, by explicitly confining its relief to mass market customers. This is a useful clarification, though the Commission would assist all parties by providing a clear definition of that line, something that is once again missing in this item. The importance of competitive choice for small business consumers has been widely recognized as a driver of economic growth, so it is unclear why the Commission once again fails to articulate clearly our rules in this area.

For these reasons, I concur in part and dissent in part.