Before the
Federal Communications Commission
Washington, DC 20554
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In the Matter of)
Review of the Section 251 Unbundling) CC Docket No. 01-338
Obligations of Incumbent Local Exchange)
Carriers)
)
Implementation of the Local Competition) CC Docket No. 96-98
Provisions of the Telecommunications Act)
Of 1996)
)
Deployment of Wireline Services Offering) CC Docket No. 98-147
Advanced Telecommunications Capability)
_____)

COMMENTS OF THE HIGH TECH BROADBAND COALITION ON PETITIONS FOR CLARIFICATION AND/OR PARTIAL RECONSIDERATION

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TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY 2
II. THE COMMISSION SHOULD ELIMINATE SECTION 271 UNBUNDLING OBLIGATIONS FOR BROADBAND FACILITIES. 4
III. FIBER-TO-THE-CURB LOOPS THAT PROVIDE EQUIVALENT TRANSMISSION CAPACITY TO FIBER-TO-THE-HOME LOOPS SHOULD BE TREATED THE SAME AS CORRESPONDING FIBER-TO-THE-HOME LOOPS.....7
IV. THE COMMISSION SHOULD INCLUDE FIBER LOOPS SERVING MULTIPLE DWELLING UNITS UNDER THE FIBER-TO-THE-PREMISE RULES. 11
V. CONCLUSION.....13

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COMMENTS OF THE HIGH TECH BROADBAND COALITION ON PETITIONS FOR CLARIFICATION AND/OR PARTIAL RECONSIDERATION

The High Tech Broadband Coalition ("HTBC") respectfully submits the following comments on the Petitions for Clarification and/or Reconsideration of the Triennial Review Order1 filed by BellSouth, SureWest Communications ("SureWest") and the US Internet Industry Association ("USIIA") (collectively, "Petitioners").2 HTBC urges the Commission to address the issues raised by Petitioners in the manner described herein, because, in so doing, it

1 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 Service Offering Advanced Telecommunications Capability, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, CC Docket Nos. 01-338, 96-98 & 98-147, FCC 03-36 (rel. Aug. 21, 2003) ("Triennial Review Order" or "Order").

2 BellSouth Petition for Clarification and/or Partial Reconsideration, CC Docket Nos. 01338, 96-98 & 98-147 (filed Oct. 2, 2003) ("BellSouth Petition"); SureWest Communications Petition for Clarification and Partial Reconsideration, CC Docket Nos. 01-338, 96-98 & 98-147 (filed Oct. 2, 2003) ("SureWest Petition"); US Internet Industry Association Petition for Clarification and Partial Reconsideration, CC Docket Nos. 01-338, 96-98 & 98-147 (filed Oct. 2, 2003) ("USIIA Petition").

will eliminate unintended yet significant obstacles to the widespread deployment of broadband technologies to mass market consumers, a fundamental objective of the Triennial Review Order.

I. INTRODUCTION AND SUMMARY

HTBC, an active participant during the comment stage of this proceeding,3 applauds the Commission's far-sighted decision to eliminate regulatory deterrents to deployment of broadband services and technologies. As the Commission has emphasized, "[b]roadband

deployment is a critical policy objective that is necessary to ensure that consumers are able to fully reap the benefits of the information age."4 Broadband deployment also is "vital to the longterm growth of our economy as well as our country's continued preeminence as the global leader in information and telecommunications technologies."5 HTBC is confident that the Commission's goal of bringing the benefits of true broadband to residential and small business customers will be realized far more expeditiously than would have been the case without the agency's bold action in this area.

The Triennial Review Order, as advocated by HTBC and others, includes significant regulatory relief for investment in last-mile broadband facilities. HTBC and Petitioners, however, have identified three areas where the Order and/or the implementing rules unintentionally create, or fail explicitly to remove, significant barriers to broadband investment.

To eliminate these obstacles, HTBC urges the Commission to grant the relief summarized below and discussed herein.

3 See Comments of High Tech Broadband Coalition, CC Docket Nos. 01-338, 96-98 & 98147 (filed April 5, 2002); Reply Comments of High Tech Broadband Coalition, CC Docket Nos. 01-338, 96-98 & 98-147 (filed July 17, 2002).

4 Order, ¶ 241.

5 Id., ¶ 212.

First, the Commission should state that broadband network elements are excluded from unbundling under Section 271. Any unbundling of broadband facilities will diminish investment, and forced access to broadband elements imposes additional costs associated with network re-design. The Commission has authority to exclude broadband elements from unbundling under Section 271 and to forbear from application of Section 271 unbundling requirements, and such action is effectively compelled by the USTA decision and Section 706.

Second, fiber to the curb ("FTTC") loops—greenfield or overbuild—that provide equivalent transmission capabilities to fiber-to-the-home ("FTTH") loops should be afforded treatment corresponding to that for FTTH loops—greenfield or overbuild. Where these technologies provide equivalent transmission capabilities, there is no basis to distinguish these architectures from the standpoint of either performance or impairment. The current, less favorable blanket treatment of all FTTC deployments is likely to deter investment in costeffective broadband alternatives. The Commission should eliminate this unwarranted disparity

and permit carriers to make deployment decisions based solely on technical and economic factors.

Third, the Commission should clarify that the fiber to the premise rule includes fiber to residential and small business consumers in multiple dwelling unit buildings ("MDUs"). Currently, it appears that fiber loops to MDUs would be considered hybrid facilities (and thus subject to certain unbundling obligations) if they connect to ILEC-owned or ILEC-controlled inside wire, even though the impairment analysis for FTTH loops applies equally to fiber loops serving MDUs. This treatment unreasonably deters deployment of fiber to buildings housing a substantial portion of mass-market consumers.

II. THE COMMISSION SHOULD ELIMINATE SECTION 271 UNBUNDLING OBLIGATIONS FOR BROADBAND FACILITIES.

The Order properly finds no impairment for mass-market broadband network elements and recognizes that the critical goals of Section 706 will be advanced by declining to mandate unbundling of these facilities. Nonetheless, it states broadly – and without reference to broadband elements – that Section 271 imposes an independent unbundling obligation. 6 This inconsistency risks undermining the benefits of excluding broadband elements from unbundling under Section 251. Accordingly, HTBC joins BellSouth and USIIA in urging the Commission to clarify that broadband elements need not be unbundled under Section 271.7

As explained at length in HTBC's comments, a report by the National Research Council, statements by more than a dozen economists, and filings by a multitude of individual manufacturers and service providers, mandatory unbundling unquestionably deters investment in broadband technology. The D.C. Circuit reached the same conclusion, explaining that unbundling in the absence of impairment "imposes costs of its own, spreading the disincentive to invest."8 This is true whenever there is "forced unbundling at potentially regulated rates,"9 regardless of whether those rates are TELRIC-based or set in accordance with some other measure of regulatory "cost." Indeed, regardless of price regulation, compulsory unbundling of broadband requires a re-design of equipment to accommodate physical access by third parties – adding costs and concomitantly diminishing deployment.10

6 Order, ¶ 653.

7 See BellSouth Petition at 11; USIIA Petition at 2.

8 USTA v. FCC, 290 F.3d 415, 424 (D.C. Cir. 2002).

9 See BellSouth Petition at 11-12.

10 See BellSouth Petition at 12 ("[S]uch compulsory unbundling would force BOCs to redesign their networks in order to accommodate requests from competitors for individual piece4

From a legal perspective, the Commission has ample authority to grant the requested relief through reconsideration. Although the Commission has stated that Section 271 imposes an unbundling obligation independent from Section 251, it also has recognized that the Section 271 unbundling requirement has "less rigid accompanying conditions."11 In fact, by its terms, the Section 271 unbundling obligation is different in kind from that imposed under Section 251.
Under the relevant provisions of Section 271, BOCs must unbundle certain services from other services but need not provide access to facilities or equipment on an unbundled basis. Thus, Section 271 does not require unbundling of all types of loops and switches; it speaks only of loop transmission unbundled from other services, and of local switching unbundled from other services.12 This reference to services, as opposed to network elements, makes clear that these checklist items are satisfied by the provision of a loop transmission service and a switching service. They do not require unrestricted access to any particular loop or switch facilities.
The flexibility inherent in Section 271, combined with the USTA court's admonition that the Commission should not require unbundling when competition would not be impaired in its absence, not only enable but compel the Commission to declare that broadband elements need not be unbundled under Section 271. Section 271 must be construed to avoid a conflict with the

(Continued . . .)

parts. Such re-design imposes considerable inefficiencies and added costs, precluding the BOC (which, like all competitors, has a finite supply of capital) from deploying broadband as extensively as it otherwise would."); USIIA Petition at 9 ("[Section 271 unbundling] would require the BOCs to redesign the basic fiber loop architecture to provide access points for competitors to individual network elements. They would also have to design and deploy support systems and procedures to allow other carriers to use these unbundled facilities and to get access to them. All this would add to the BOCs' broadband costs, raising the cost of broadband to consumers and further slowing deployment.").

11 Order, ¶ 658.

12 See 47 U.S.C. §271(c)(2)(B)(iv), (vi) (requiring access to "local loop transmission from

the central office to the customer's premises, unbundled from local switching or other services"
and "local switching unbundled from transport, local loop transmission, or other services")
(emphasis added).
5

critical statutory goals of promoting facilities-based competition and broadband deployment.
Thus, the Commission should ensure that the Section 271 unbundling obligations applicable to
overbuilds mirror the Section 251 unbundling requirements for those facilities.13
Moreover, where a BOC deploys greenfield FTTH or "equivalent" FTTC,14 there should
be no obligation to provide transmission over that facility. The unbundled loop transmission
obligation of checklist item 4 does not require that the BOC provide transmission to every
possible customer. Rather, Section 271 is best read as requiring access only to customers served
by legacy, bottleneck facilities, since its purpose is to permit the BOCs to provide interLATA
services only when they have opened their legacy networks to competition. In a greenfield
FTTH or equivalent FTTC context, there is no legacy network and no bottleneck. The BOCs
have no unfair competitive advantage in FTTH and equivalent FTTC situations, and CLECs may
enjoy lower costs in building out these greenfield facilities, given their lower labor costs.15 In
these situations, requiring unbundled access to loop transmission under Section 271 is both
unnecessary and counterproductive.
Even if the Commission concludes that the Section 271 unbundling requirements apply to
broadband facilities and equipment, it should forbear from application of them.16 Section 10 of
the Act requires the Commission to forbear "from applying any regulation or any provision of
this Act" if it determines that (1) enforcement is not necessary to ensure that charges, practices,
See 47 C.F.R. § 51.319(a)(3)(ii), (iii). HTBC notes that the "just and reasonable" pricing
standard of Sections 201 and 202 of the Act govern the prices for unbundled access to overbuilds
under Section 271. See Order, ¶¶ 656-64.
14 See infra Section III.
15 See Order, ¶ 275 n.808.
16 HTBC notes that Verizon and other RBOCs already have filed petitions for such forbearance.
6

classifications or regulations are "just and reasonable and are not unjustly or unreasonably
discriminatory," (2) enforcement is not necessary "for the protection of consumers" and (3)

forbearance "is consistent with the public interest."17 Forbearance from application of Section 271 unbundling is justified for the same reasons that the Commission's concluded that Section 251 unbundling obligations do not apply to broadband elements.

III. FIBER-TO-THE-CURB LOOPS THAT PROVIDE EQUIVALENT TRANSMISSION CAPACITY TO FIBER-TO-THE-HOME LOOPS SHOULD BE TREATED THE SAME AS CORRESPONDING FIBER-TO-THE-HOME LOOPS.

The Order considers FTTC loops to be "hybrid loops" in both greenfield and overbuild deployments.18 As a result, greenfield FTTC loops are subject to certain unbundling obligations – namely, the obligation to unbundle the copper drop from the fiber serving terminal to the end user's premise and, if TDM capabilities are deployed, to unbundle those capabilities.19 In contrast, greenfield FTTH loops are exempt from unbundling.20 Similarly, overbuild FTTC loops are subject to different unbundling obligations than overbuild FTTH loops. Specifically, for overbuild FTTC loops, ILECs must unbundle the complete transmission path over TDM networks (including DS1 and DS3 loops), if such capability is deployed. In addition, they must provide an entire non-packetized transmission path capable of voicegrade service (i.e., DS0) between CO and customer premises, or in the alternative a copper line.21 In contrast, for overbuild FTTH loops, ILECs must provide only unbundled access to a narrowband (i.e., 64 kbps) voice grade loop if the copper loop is removed or permit CLECs to ha ve access to copper

17 47 U.S.C. § 160.
18 See Order, ¶ 275 n. 811.
19 See 47 C.F.R. § 51.319(a)(2)(ii), (iii).
20 See 47 C.F.R. § 51.319(a)(3)(i).
21 See 47 C.F.R. 51.319(a)(2)(iii).

loop.22 Where FTTC provides equivalent transmission capabilities to FTTH, this regulatory disparity is irrational and must be eliminated in order to promote the greatest possible investment and innovation in broadband technologies and services.23

From a technical standpoint, certain FTTC loops can provide end users with transmission capacity equivalent to FTTH loops. Indeed, the Commission appears to have acknowledged this.24 In the Triennial Review NPRM, the Commission asked whether it should "distinguish between the deployment of fiber optic facilities directly to the home (i.e., 'fiber to the curb') and fiber optic facilities only to remote terminals."25 Presentations to the Commission during the Triennial Review proceeding established similarities between FTTC and FTTH. 26 And, a

Telcordia document cited in the Order to suggest that FTTC should be grouped with ordinary hybrid loops actually establishes exactly the opposite.27 The voice, data, and video services that can be offered over certain FTTC systems are akin to those that can be offered over FTTH.

22 47 C.F.R. § 51.319(a)(3)(ii).

23 See BellSouth Petition at 3 ("Because FTTC and FTTH are equivalent technologies, treating them differently for regulatory purposes only incents the deployment of one technology over another, even where the disfavored technology may be more economical or has other advantages. By disfavoring an economic alternative to FTTH, the Commission undermines one of its primary goals: the rapid, widespread deployment of next-generation broadband.").

24 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 Service Offering Advanced Telecommunications Capability, Notice of Proposed Rulemaking, 16 FCC Rcd 22781, 22804 (2001) ("Triennial Review NPRM").

25 Id. at 22804.

26 See Stagg Newman, FCC Tutorial: Broadband Access Platforms (McKinsey and Company, April 14, 2002), at 33 (depicting a PON architecture with fiber deployed to a possible optical splitter, and then delivered on to homes over either fiber, copper, or coax).

27 See Telcordia Notes on Fiber-in-the-Loop (cited in note 811 of the Triennial Review Order, ¶ 275 n.811) at 9-2 (discussing BellSouth's deployment of "deep fiber," which "brings fiber within 500 feet of the user, providing broadcast video, high speed internet data, and the latest voice applications in demographic areas where bandwidth demand is expected to be exceptionally high"), 9-11 (stating that "the variety of FITL architectural options in terms of depth of fiber, drop technology, network topology and the service platform offer carriers the

Nor is there any basis for finding CLECs to be impaired without unbundled access to greenfield FTTC loops that have equivalent transmission capabilities to FTTH. In fact, in a greenfield setting, CLECs suffer no competitive impairment in deploying such FTTC loops for the same reasons that they suffer no competitive impairment in deploying FTTH: the "entry barriers," as the Commission noted, "are largely the same."28 As is true for FTTH, an ILEC deploying greenfield FTTC loops "ha[s] no advantages concerning the sunk cost" of any of the

network components and lacks "a first-mover advantage that would compound any barriers to entry."29 Likewise, for both greenfield FTTC and FTTH builds:

> both incumbent and competitive carriers must negotiate 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.30

In the overbuild context, there is no impairment because, as with overbuild FTTH loops serving individual residences, the ILEC still would have to either retain and provide unbundled access to a preexisting copper loop or, if it retires that loop, make available a 64 kbps voice channel on the fiber facility.

The same holds true for the revenue opportunities.31 Because certain FTTC loops, like FTTH – and in contrast to DLC hybrid loops – enable carriers to offer voice, high-speed data, and multichannel, high-quality video, any competitor contemplating a greenfield deployment of

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flexibility to design systems that best fit their technical and economical objectives," and that FTTC "offer[s] cost-effective alternatives for all-optical FTTH deployment.").

28 Order, ¶ 275.

29 Id.

30 Id.

31 See Order, ¶¶ 240, 274; BellSouth Petition at 7.

such loops is able to tap a potentially lucrative revenue stream. Consequently, there is no rational basis for distinguishing between FTTH loops and FTTC loops that provide equivalent transmission capability; neither is there any risk that granting relief for FTTC, as properly defined, would undermine the different outcome applicable to hybrid loops.

Finally, reconsideration is supported by the policies underlying Section 706 of the Act. Carriers sho uld 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 premise.32 Those trade-offs sho uld be made without regard to unnecessary regulatory costs that could impede deployment.

For these reasons, the Commission should treat greenfield FTTC loops that provide transmission capacity equivalent to FTTH loops the same as greenfield FTTH loops and should treat overbuild FTTC loops that provide transmission capacity equivalent to FTTH loops the same as overbuild FTTH loops. To do so, HTBC recommends that the Commission amend Rule 51.319(a)(2) by adding the following after the existing sentence:

> Notwithstanding the preceding sentence, a loop that (1) consists of fiber to a serving terminal, at which the fiber connects to a service

drop length of not more than five hundred feet to a mass market end user's premises, and (2) provides transmission capability to deliver voice, multi-channel video and data services that meets or exceeds the transmission capability specified in an ITU-approved or other well-established standard used for fiber-to-the-home, shall be subject to subparagraph 51.319(a)(3) rather than this paragraph.

Importantly, this language grants relief only to those FTTC loops where media and electronics have been deployed to deliver transmission capability equivalent to that specified in a well-

As BellSouth notes, the Commission should be "hesitant to declare FTTH (or any other single technology) the 'winner' in the race to provide broadband to the consumer." BellSouth Petition at 8.

established standard used for FTTH loops. The requested revision thus does not jeopardize the Order's treatment of hybrid loops.

IV. THE COMMISSION SHOULD INCLUDE FIBER LOOPS SERVING MULTIPLE DWELLING UNITS UNDER THE FIBER-TO-THE-PREMISE RULES.

In the Order, the Commission removed unbundling obligations from FTTH loops to accelerate the deployment of this next-generation architecture. The September 17 Erratum eliminated a serious inconsistency between the Order and the Rules by making clear that FTTH loops include all mass market loops, not just single residential premises.33 However, as Petitioners note, the revised definition remains too narrow in one critical respect: it appears that where fiber is deployed to an MDU – that is, a building primarily used to house multiple residential units but that also may house some small business units – and then connects to copper riser cable that is owned or controlled by the ILEC, the loop is considered a hybrid loop rather than a fiber-to-the-premise loop.34 Such treatment requires the ILEC to make TDM capacity available where deployed, to unbundle the copper riser cable even in a greenfield setting, and to make voice transmission capability available either over the hybrid loop or through spare home run copper. Those requirements create profound disincentives to the deployment of fiber to

33 However, the revised definition in the Erratum should be conformed to the changes to paragraph (a)(2) suggested in Section III, above.

34 BellSouth Petition at 10 ("In many buildings [ ], a fiber may run to a serving terminal in the building's basement, from which it is connected to individual units over LEC-owned orcontrolled copper. Under the existing definition, where the network demarcation point is at the apartment and the LEC owns or controls the in-premises wiring, the loop would be characterized

as a hybrid loop."); SureWest Petition at 4 ("Because of the Commission's definition of what constitutes fiber-to-the-premises, the Order could be construed to limit fiber-to-the premises to multiunit premises where the wiring inside the building is not owned by the LEC."); USIIA Petition at 3.

11

MDU buildings, undermining the Commission's goal of creating for consumers "a race to build next generation networks and the increased competition in the delivery of broadband services."35 To address this problem, the Commission should clarify that the fiber portion of a loop that extends to an MDU and connects to in-building copper cable owned or controlled by the LEC is considered a fiber-to-the-premises loop.36 Thus, HTBC urges the Commission to revise Rule 51.319(a)(3) to read as follows:

(3) Fiber-to-the-premise loops. A fiber-to-the-premise loop is a local loop, whether dark or lit, consisting either entirely of fiber optic cable, or of fiber optic cable connected to a copper drop as described in paragraph (2) of this subsection, and serving a mass market end user's customer premises. For purposes of this paragraph, a "mass market end user's customer premises" includes any residence, small business customer, and public institution, including those in MDUs. A fiber-to-the-premise loop also includes a local loop consisting of fiber optic cable connected to a fiber serving terminal in an MDU and an ILEC-owned or controlled copper riser cable serving an individual dwelling unit.

In addition, throughout Rule 51.319(a)(3)(i) and (ii), the phrase "fiber to the home" should be replaced with "fiber to the premise."

This revision is necessary to ensure that fiber loops serving residential and small business mass market end users located in MDUs receive the same treatment as fiber loops serving individual mass market end-user premises, as the Commission must have intended. It avoids the implication in the existing definition that only the actual dwelling unit or business location of an individual mass-market end user constitutes a customer premises. It also assures that fiber to MDUs receives relief from unbundling even where the fiber is connected to copper riser cable owned or controlled by the ILEC. Indeed, the G.983 FTTH standard for serving multiple

35 Order, ¶ 272.

36 BellSouth Petition at 10.

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dwelling units describes an architecture in which fiber is connected to the building but individual units within the MDU are served by copper.37 To assure that ILECs have the strongest possible

incentive to deploy fiber to MDUs, such an architecture should be treated as fiber to the premise.
From an impairment standpoint, there is no rational basis for distinguishing fiber loops
serving MDUs and fiber loops serving individual premises. In a greenfield setting, there is no
impairment for the reasons discussed above with respect to FTTC loops. Both CLECs and
ILECs face the same barriers to entry and can anticipate the same revenue opportunities. In
addition, even if the ILEC owns or controls the riser cable, there is no basis for finding
impairment where the MDU is new, since all competitors had an equal chance to bid for the right
to serve it. In the overbuild context, there is no impairment because, as with overbuilt FTTH
loops to individual residences, the ILEC still would have to either retain a pre-existing copper
loop (which is defined to include LEC-owned or -controlled inside wire) or, if it retires that loop,
to make available a 64 kbps voice channel on the fiber facility. Consequently, by amending the
rules as suggested above, the Commission can eliminate barriers to deploying broadband to
buildings housing a significant proportion of all Americans while assuring that competition is not
impaired.

V. CONCLUSION

To ensure that its unbundling rules have the intended effect of promoting broadband
deployment to the greatest extent possible, the Commission should clarify or modify its Triennial
Review Order on the issues identified by Petitioners in the manner set forth above.

In addition, the GR-909 Fiber In The Loop description notes that when fiber is placed in
the loop to serve MDUs, the final drop to the individual residence will be a copper loop of up to
500 feet. GR-909-CORE, 2.20 Service Drop Considerations (March 2000).

Respectfully submitted,

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