

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

In the Matters of)	
)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability)	CC Docket No. 98-147
)	
Petition of Bell Atlantic Corporation)	CC Docket No. 98-11
)	
For Relief from Barriers to Deployment of Advanced Telecommunications Services)	
)	
Petition of U S WEST Communications, Inc. For Relief from Barriers to Deployment of Advanced Telecommunications Services)	CC Docket No. 98-26
)	
Petition of Ameritech Corporation to Remove Barriers to Investment in Advanced Telecommunications Technology)	CC Docket No. 98-32
)	
Petition of the Alliance for Public Technology Requesting Issuance of Notice of Inquiry and Notice of Proposed Rulemaking to Implement Section 706 of the 1996 Telecommunications Act)	CCB/CPD No. 98-15 RM 9244
)	
Petition of the Association for Local Telecommunications Services (ALTS) for a Declaratory Ruling Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability Under Section 706 of the Telecommunications Act of 1996)	CC Docket No. 98-78
)	
Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell Petition for Relief from Regulation Pursuant to Section 706 of the Telecommunications Act of 1996 and 47 U.S.C. § 160 for ADSL Infrastructure and Service)	CC Docket No. 98-91
)	

**MEMORANDUM OPINION AND ORDER, AND
NOTICE OF PROPOSED RULEMAKING**

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By the Commission: Commissioners Ness, Powell and Tristani issuing separate statements.

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I. INTRODUCTION

1. One of the fundamental goals of the Telecommunications Act of 1996 (1996 Act)¹ is to promote innovation and investment by all participants in the telecommunications marketplace, both incumbents and new entrants, in order to stimulate competition for all services, including advanced services. Congress provided the blueprint in the 1996 Act for ensuring that all markets are open to competition, while encouraging the rapid deployment of new telecommunications technologies.² In this proceeding, we take steps to implement Congress' framework with respect to advanced services.

2. As the demand for high-speed, high-capacity advanced services increases, incumbent telecommunications companies and new entrants alike are deploying innovative new technologies to meet that demand. The role of the Commission is not to pick winners or losers, or select the "best" technology to meet consumer demand, but rather to ensure that the marketplace is conducive to investment, innovation, and meeting the needs of consumers.

3. This item is issued in response to six petitions suggesting action we should take to speed the deployment by wireline carriers of advanced services. Although the parties filing these petitions seek relief pursuant to section 706³ of the 1996 Act, our authority to take action lies in the heart of the Communications Act of 1934 (the Act), in sections 201, 202, 251 and 271. For purposes of this item, we use the term "advanced services" to mean wireline, broadband⁴

¹ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, *codified at* 47 U.S.C. §§ 151 *et seq.* Hereinafter, all citations to the 1996 Act will be to the 1996 Act as it is codified in the United States Code. The 1996 Act amended the Communications Act of 1934. We will refer to the Communications Act of 1934, as amended, as the "Communications Act" or as the "Act."

² Preamble to Pub. L. 104-104, 110 Stat. 56 (1996).

³ Pub.L. 104-104, Title VII, § 706, Feb. 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. § 157.

⁴ The term "broadband" is generally used to convey sufficient capacity -- or "bandwidth" -- to transport large amounts of information. As technology evolves, the concept of "broadband" will evolve with it: we may consider today's "broadband" services to be "narrowband" services when tomorrow's technologies appear.

telecommunications services, such as services that rely on digital subscriber line technology (commonly referred to as xDSL)⁵ and packet-switched technology.⁶

4. This item consists of a Memorandum Opinion and Order (Order) and a Notice of Proposed Rulemaking (NPRM). After clarifying in the Order our views on the applicability of existing statutory requirements in sections 251 and 271 to advanced services, we seek comment on a wide variety of issues associated with the provision of advanced services by wireline carriers. We propose measures to promote the deployment of advanced services in a competitive manner by both incumbent local exchange carriers (LECs) and new entrants.

5. We note that we are also issuing another item today that addresses advanced services, a Notice of Inquiry (NOI), pursuant to our statutory obligation under section 706(b) of the 1996 Act.⁷ In the NOI, we seek information on the status of broadband deployment in all market sectors -- including wireless, wireline, cable, and satellite -- and the types of actions we can take in the future if we determine that advanced telecommunications capability is not being deployed to all Americans in a reasonable and timely fashion.⁸

⁵ The "x" in xDSL is a place holder for the various types of DSL service, such as ADSL (asymmetric digital subscriber line), HDSL (high-speed digital subscriber line), UDSL (universal digital subscriber line), VDSL (very-high speed digital subscriber line), and RADSL (rate-adaptive digital subscriber line). We discuss the functionality offered by xDSL in greater detail in section IV(C), *infra*.

⁶ We further describe advanced services in section IV(C), *infra*. We note that services that rely on digital subscriber line technology are but one of the advanced services currently in existence, and we in no way mean to suggest digital subscriber line is the preferred technology. We consider it preferable to provide illustrative examples rather than attempting to create a list of all advanced services.

⁷ *See* 47 U.S.C. § 157 note. Section 706(b) of the Telecommunications Act of 1996 requires the Commission to initiate, within 30 months of the enactment of the 1996 Act, an inquiry into the availability of advanced telecommunications capabilities to all Americans. The Commission must complete the inquiry within six months, and must take "immediate action to accelerate the deployment" of advanced telecommunications capability if the inquiry determines that such capability is not being deployed to all Americans in a reasonable and timely fashion. *See id.*

⁸ We note that the states recently urged the Commission to initiate an NOI and solicit additional ideas, including those put forth by the states, before granting any specific remedial actions or requests for interim relief proposed in the petitions of Bell Atlantic, the Alliance for Public Technology, Ameritech, U S WEST, and SBC. NARUC Convention Floor Resolution No. 6, "Resolution Regarding Additional Petitions to the FCC for Action Under Section 706" (adopted by the Exec. Comm. on July 30, 1998).

II. OVERVIEW

6. Increasingly, all electronic communications are becoming digital. Print, audio, video, voice and data⁹ can all be transmitted in digital form, as collections of ones and zeros. Digitized information can be efficiently transmitted by means of "packet switching." Instead of maintaining an end-to-end channel of communications for the length of the information transfer, packet switching breaks the information up into smaller packets that are transmitted separately over the most efficient route available, and then reassembled, microseconds later, at their destination. Packet-switched transmission of digitized information promises a revolution in information, communications services, and entertainment.¹⁰

7. High-speed, packet-switched networks offer businesses, residential users, schools and libraries, and other end users of information the ability to access and transport information across the street or across the globe. If ordinary citizens can access these networks at high speeds using existing copper wires, a variety of new services and vast improvements to existing services will be available. In the near future, these services could include real-time video in place of telephony, so that families who connect over the phone can not only talk to each other, but can see each other as well. They could also include feature-length movies on demand, and faster access to the Internet. They are bringing about explosive growth in electronic commerce and new paths for distance learning. The ability of all Americans to access these networks, and to share in their resources, will very likely spur our growth and development as a nation.

8. If all Americans are to have meaningful access to these advanced services, however, there must be a solution to the problem of the "last mile." No matter how fast the network is, if the connection between the network and the end-user is slow, then the end-user cannot take advantage of the network's high-speed capabilities.¹¹ For example, information generally moves very quickly across the high-speed backbone of the Internet. But its speed may be cut to a tiny fraction when it passes through the ordinary copper telephone line that runs into a residence. The end-user may not be able to receive data quickly enough to take advantage of broadband applications.¹²

⁹ We use the term "data" broadly to refer to a representation of facts, concepts, instructions, or information in a manner suitable for communication, interpretation, or processing.

¹⁰ Packet-switched technology is discussed in further detail in section IV(C), *infra*.

¹¹ Although advanced services can also be deployed using other technologies over satellite, cable, and wireless systems, we limit the discussion here to wireline services, because none of the petitioners raise issues about these other technologies.

¹² Consumers may also experience delays in accessing information that stem from sources other than the "last mile." For example, they may experience delays at the servers containing the information they wish to access, or delays relating to congestion in the Internet itself.

9. The six petitions we have received request that we use various tools, including regulatory forbearance, to facilitate deployment of advanced services. In broad terms, four Bell Operating Companies (BOCs) request that we allow them to provide xDSL-based services in a deregulated environment.¹³ At the same time, the Association for Local Telecommunications Services (ALTS) requests a declaratory ruling and commencement of a rulemaking to ensure that competing carriers can deploy xDSL-based services quickly and efficiently.¹⁴ Finally, the Alliance for Public Technology (APT) urges the Commission to initiate a Notice of Inquiry and Notice of Proposed Rulemaking to adopt various policies to remove barriers to deployment and actively promote infrastructure investment.¹⁵

10. Today, incumbent wireline carriers and new entrants are at the early stages of deploying xDSL and other advanced services. Thus, the incumbent does not currently enjoy the overwhelming market power that it possesses in the conventional circuit-switched voice telephony market. Incumbents assert that rules mandating that they give their competitors access to advanced services and the facilities used to provide those services reduce their incentive to invest in these new facilities, and are not necessary given their lack of market power in this area. At the same time, new entrants argue that incumbents are attempting to evade their obligation to provide access to those facilities and services that are critical to competitive participation in the wireline market. We seek in this proceeding to address both of these concerns, and to encourage and enable all companies, both incumbents and new entrants, to provide these advanced services.¹⁶

11. In the Order, we first conclude that the pro-competitive provisions of the 1996 Act apply equally to advanced services and to circuit-switched voice services. Congress made clear that the 1996 Act is technologically neutral and is designed to ensure competition in all

¹³ *Petition of Bell Atlantic Corporation for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket No. 98-11 (filed Jan. 26, 1998); *Petition of U S WEST Communications, Inc., for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket No. 98-26 (filed Feb. 25, 1998); *Petition of Ameritech Corporation to Remove Barriers to Investment in Advanced Telecommunications Capability*, CC Docket No. 98-32 (filed Mar. 5, 1998); *Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell Petition for Relief from Regulation Pursuant to Section 706 of the Telecommunications Act of 1996 and 47 U.S.C. § 160 for ADSL Infrastructure and Service*, CC Docket No. 98-91 (filed June 9, 1998).

¹⁴ *Petition of the Association for Local Telecommunications Services (ALTS) for a Declaratory Ruling Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability Under Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-78 (filed May 27, 1998).

¹⁵ *See Petition of the Alliance for Public Technology Requesting Issuance of Notice of Inquiry and Notice of Proposed Rulemaking to Implement Section 706 of the 1996 Telecommunications Act*, CCB/CPD No. 98-15 (filed Feb. 18, 1998).

¹⁶ *See* Letter from Larry Irving, Assistant Secretary for Communications and Information, National Telecommunications and Information Administration, U.S. Department of Commerce, to William E. Kennard, Chairman, Federal Communications Commission, CC Docket Nos. 98-91, 98-32, 98-26, and 98-11 at 2 (filed July 17, 1998) (NTIA July 17 *ex parte*).

telecommunications markets. We therefore conclude that incumbent LECs are subject to section 251(c) in their provision of advanced services. Specifically, we find that incumbent LECs are subject to the interconnection obligations of sections 251(a) and 251(c)(2) with respect to both their circuit-switched and packet-switched networks. We also clarify that the facilities and equipment used by incumbent LECs to provide advanced services are network elements and subject to the obligations in section 251(c)(3). Thus, for example, all incumbent LECs must provide requesting telecommunications carriers with unbundled loops capable of transporting high-speed digital signals, and must offer unbundled access to the equipment used in the provision of advanced services, subject to considerations of technical feasibility and the provisions of section 251(d)(2). As discussed in the NPRM below, however, to the extent that an incumbent LEC chooses to establish an affiliate that is truly separate from the incumbent to provide these advanced services, that affiliate would not be an incumbent LEC under the Act, and would therefore not be subject to incumbent LEC regulation.¹⁷

12. Second, we deny in the Order the petitions of Ameritech, Bell Atlantic, SBC,¹⁸ and U S WEST to the extent that they request us to forbear from applying the requirements of sections 251(c) and/or 271 with respect to their provision of advanced services. We conclude that Congress did not provide us with the statutory authority to forbear from these critical market-opening provisions of the Act until their requirements have been fully implemented. We also decline to grant the requests to create a single, global LATA for packet-switched services, because we believe that such a determination could effectively eviscerate section 271 and circumvent the procompetitive incentives for opening the local market that Congress sought to achieve through that section of the Act.

13. We are committed, however, to ensuring that incumbent LECs make their decisions to invest in and deploy advanced telecommunications services based on the market and their business plans, rather than regulation. Accordingly, in the NPRM, we propose an optional alternative pathway for incumbent LECs that would allow separate affiliates to provide advanced services free from incumbent LEC regulation. In particular, if an incumbent LEC chooses to offer advanced services through an affiliate that is truly separate from the incumbent, that affiliate would not be deemed an incumbent LEC and therefore would not be subject to incumbent LEC regulation, including the obligations under section 251(c). We make specific proposals in the NPRM on how separate an affiliate would need to be so that it would not be deemed an incumbent LEC. Our proposals reflect our view that, if the advanced services affiliate derives an unfair advantage from its relationship with the incumbent, that affiliate would have to be viewed as stepping into the shoes of the incumbent LEC and would be subject to all the requirements that Congress established for incumbent LECs.

¹⁷ We recognize that the corporate holding company may be the entity that would establish the affiliate, rather than the incumbent LEC per se.

¹⁸ This petition was actually filed by SBC's incumbent LEC entities, Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell.

14. In addition, we seek to facilitate the ability of competing carriers to offer advanced services on an equal footing with incumbent carriers and their affiliates. In particular, to provide advanced services, new entrants may need to collocate equipment on an incumbent LEC's premises for interconnection and access to unbundled network elements, such as loops. Consequently, we grant ALTS' request that we initiate a rulemaking to strengthen collocation requirements, which will reduce the costs and delays associated with collocation. We also seek comment on whether to review and revise our rules regarding the provision of loops to eliminate barriers to entry for competing providers. Specifically, we seek comment on whether we should revise our definition of the loop, or require sub-loop unbundling in recognition of new technological and market developments. We also seek comment on how to unbundle loops that pass through remote concentration devices. We note that, to the extent an incumbent LEC chooses to establish a separate affiliate to provide advanced services, the incumbent LEC should have an additional incentive to improve its processes and provide unbundled elements and collocation space as quickly and cheaply as possible to all competitors, including its advanced services affiliate.

15. In addition, we seek comment on the specific unbundling obligations for network elements used to provide advanced services and on whether we should modify the current unbundling rules in light of technological and market advances.

16. Finally, we seek comment on a number of proposals that would provide tailored relief to incumbent LECs and/or their affiliates. In particular, we seek comment on whether limited LATA boundary modifications or other targeted interLATA relief would be appropriate in certain circumstances.

17. We recognize the importance of the issues we raise in the NPRM to the deployment of advanced services by both incumbents and competitors. We further recognize the importance of regulatory certainty and the impact it has on the ability of all carriers to plan and develop their products and services. We therefore seek to issue an order resolving the issues raised in the NPRM as expeditiously as possible.

III. EXECUTIVE SUMMARY

18. In the Order, we take the following steps:

Obligations of Incumbent LECs That Provide Advanced Services on an Integrated Basis

We clarify, in response to a petition by ALTS, that sections 251 and 252 apply to advanced telecommunications facilities and services offered by an incumbent local exchange carrier (LEC) as defined in the Communications Act, *i.e.*, the local telephone operating company. An affiliate is not an incumbent LEC unless it is a successor or assign of the incumbent LEC, or comparable to the incumbent LEC, as set forth in the statute. For example, we find that an incumbent LEC is subject

to the interconnection obligations of section 251(c)(2) with respect to both circuit-switched and packet-switched networks.

- # We also clarify, in response to the ALTS petition, that the facilities and equipment used by incumbent LECs to provide advanced services are network elements and subject to section 251(c). Thus, upon request, the incumbent LEC must provide new entrants with unbundled loops capable of transporting high-speed digital signals, and must offer unbundled access to the equipment used in the provision of advanced services, to the extent technically feasible and subject to the provisions of section 251(d)(2).
- # We also declare that, pursuant to the terms of section 251(c)(4), the incumbent LEC must offer for resale, at wholesale rates, any advanced services that the incumbent offers to subscribers that are not telecommunications carriers.

Forbearance from Sections 251(c) and 271

- # We deny requests to forbear from application of sections 251(c) and/or 271, concluding that we do not have the statutory authority to forbear from either section prior to its full implementation.
- # We deny requests for large-scale changes in LATA boundaries (such as Ameritech's request for a global, "data LATA") because that would be functionally the same as forbearing from section 271 for advanced services and would eviscerate section 271 for those services. In the NPRM, we seek comment on more targeted LATA boundary modification issues.

19. In the Notice of Proposed Rulemaking, we make the following tentative conclusions and seek comment on the following issues:

Provision of Advanced Services Through a Separate Affiliate

- # We propose an optional alternative pathway for incumbent LECs that would allow separate affiliates to provide advanced services free from incumbent LEC regulation. As a non-incumbent LEC, an advanced services affiliate would not be subject to the requirements of section 251(c). We also tentatively conclude that, to the extent such an affiliate provides interstate exchange access service, the affiliate: (1) would be presumed to be nondominant, and, therefore, not subject to price cap regulation or rate of return regulation for such services; and (2) would not be required to file tariffs for such services.
- # We tentatively conclude that an advanced services affiliate that meets the following specific structural separation and nondiscrimination requirements will not be an

incumbent LEC: (1) the incumbent must "operate independently" from its affiliate; (2) transactions must be on an arm's length basis, reduced to writing, and made available for public inspection; (3) the incumbent and affiliate must maintain separate books, records, and accounts; (4) the incumbent and advanced services affiliate must have separate officers, directors, and employees; (5) the affiliate must not obtain credit under any arrangement that would permit a creditor, upon default, to have recourse to the assets of the incumbent; (6) the incumbent LEC, in dealing with its advanced services affiliate may not discriminate in favor of its affiliate in the provision of any goods, services, facilities or information or in the establishment of standards; and (7) an advanced services affiliate must interconnect with the incumbent LEC pursuant to tariff or pursuant to an interconnection agreement, and whatever network elements, facilities, interfaces and systems are provided by the incumbent LEC to the affiliate must also be made available to unaffiliated entities.

- # We seek comment on how transfers to advanced services affiliates of, among other things, facilities and customer accounts, should affect the regulatory status of the affiliates. We are committed to ensuring that the separate affiliate is a realistic option for incumbent LECs. We must evaluate, however, whether certain transfers would render an advanced services affiliate an "assign" of the incumbent LEC.
- # To the extent that an advanced services affiliate provides advanced services on an intrastate basis, we encourage states to treat the affiliate equivalently to any other competing carrier offering advanced services.

Collocation and Loop Requirements

- # We, in response to a request by ALTS, initiate a rulemaking to adopt strengthened collocation requirements. We seek comment on a number of measures that would optimize the space available for collocation and would reduce unnecessary costs and delays, and thereby facilitate deployment of advanced services, particularly to residential and rural customers. For example, we seek comment on whether we should require incumbent LECs to allow collocation of equipment that includes switching functionality. We also tentatively conclude that incumbent LECs should be required to offer alternative collocation arrangements, including cageless collocation. We further tentatively conclude that, upon request, incumbent LECs should provide competitors with written information regarding space availability in the incumbent's facilities, and that incumbent LECs that deny physical collocation, citing space constraints, should allow competitors to tour the incumbent's premises.
- # We also seek comment on whether we should revise our rules regarding the provision of loops to competitors in order further to eliminate barriers to entry for

entities that seek to provide advanced services. Specifically, we seek comment on: (1) whether the operations support system rules adequately ensure that competitive LECs have access to loop information; (2) how we should address loop spectrum interference issues and whether we should require loop spectrum unbundling; and (3) whether we should revise our definition of the local loop to take account of new technological developments. We also seek comment on how carriers should unbundle loops that pass through remote concentration devices.

Unbundling Obligations Under Section 251(c)(3)

- # We seek comment on the specific unbundling obligations that apply to network elements used to provide advanced services. In addition, we seek comment on whether we should adopt additional criteria when considering the extent to which network elements must be made available on an unbundled basis. We also seek comment on whether we should find section 251(c)(3) to be fully implemented on a service-by-service basis.

Resale Obligations Under Section 251(c)(4)

- # We seek comment on whether we should modify our prior interpretation of the requirements of section 251(c)(4) and require incumbent LECs to make available for resale, at wholesale rates, certain advanced exchange access services that they generally offer to subscribers that are not telecommunications carriers.

Limited InterLATA Relief

- # We seek comment on the scope of the incidental, interLATA exception in section 271.
- # We seek comment on types of LATA boundary modifications that might encourage deployment of advanced services to elementary and secondary schools and classrooms, and other educational institutions.
- # We tentatively conclude that modification of LATA boundaries may be necessary for subscribers in rural areas to have high-speed connections to the Internet.
- # We seek comment on whether we have authority to take other targeted actions to facilitate deployment of advanced services and, if so, on the criteria we should use in evaluating such requests.

IV. BACKGROUND

A. Statutory Framework

20. In the 1996 Act, Congress established a "pro-competitive, deregulatory national policy framework" for telecommunications, opening all telecommunications markets to competition so as to make advanced telecommunications and information technologies and services available to all Americans.¹⁹ Congress enacted provisions opening incumbent LECs' networks to competitors, and gave the Commission the authority to adopt rules in this area to further the competitive goals of the 1996 Act.

21. At the core of the Act's market-opening provisions are sections 251 and 271.²⁰ In section 251, Congress sought to open local telecommunications markets to competition by reducing inherent economic and operational advantages possessed by incumbents. Section 251 requires incumbent LECs to share their networks in a manner that enables competitors to choose among three methods of entry -- the construction of new networks, the use of unbundled elements of the incumbent's network, and resale. Thus, section 251 requires incumbent LECs to offer at cost-based rates nondiscriminatory interconnection with their networks²¹ and access to unbundled network elements.²² Section 251 also requires incumbent LECs to make their retail services available at wholesale rates so they can be resold by new entrants.²³ Together with other pro-competitive provisions of the Act, section 251 provides new entrants with the ability to offer competitive telecommunications services.

22. Section 271 conditions the provision of in-region, interLATA services by BOCs on compliance with certain requirements, including compliance with a competitive checklist.²⁴ The critical market-opening requirements of section 251 are incorporated into this competitive checklist. Thus, through section 271, Congress requires BOCs to demonstrate that they have opened their local markets to competition before they are authorized to enter the in-region long distance market.

¹⁹ Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong. 2d Sess. 1 (1996) (*Joint Explanatory Statement*).

²⁰ 47 U.S.C. §§ 251, 271.

²¹ 47 U.S.C. § 251(c)(2)(D).

²² 47 U.S.C. § 251(c)(3).

²³ 47 U.S.C. § 251(c)(4).

²⁴ 47 U.S.C. § 271.

B. Petitions Before the Commission

23. A number of parties have filed petitions pursuant to section 706, seeking regulatory forbearance, initiation of a rulemaking, and declaratory rulings with respect to the provision of xDSL and packet-switched services. On January 26, 1998, Bell Atlantic filed a petition with the Commission pursuant to section 706 of the 1996 Act.²⁵ Bell Atlantic asks the Commission to forbear from applying the provisions of sections 251 and 271 of the Act to its advanced services. Specifically, Bell Atlantic asks the Commission to permit it to offer xDSL and other high-speed broadband services free from pricing, unbundling, and separations restrictions. In addition, Bell Atlantic asks the Commission to forbear from applying section 271 of the Act to its high-speed broadband services, or, in the alternative, to modify LATA boundaries, so as to permit it to carry in-region interLATA traffic.²⁶

24. On February 18, 1998, APT filed a petition asking the Commission to initiate a rulemaking to address various issues related to the deployment of advanced services.²⁷ APT urges the Commission to apply section 251(c) only to the existing incumbent LEC network and not to advanced services.²⁸ In conjunction with this request, APT asks the Commission to explore the possibility of requiring the incumbent LEC to use a separate subsidiary as a marketing device for its advanced services.²⁹ APT also asks the Commission to address various pricing issues, such as the development of an Internet service provider access charge that would be acceptable to the Internet industry.³⁰ APT also urges the Commission to consider what type of conditions could be attached to the Commission's approval of future mergers that would promote the objectives of section 706.³¹ Finally, APT asks the Commission to consider "establishing a federal/state policy

²⁵ *Commission Seeks Comment on Bell Atlantic Petition for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket No. 98-11, Public Notice, 13 FCC Rcd 2495 (1998). On February 25, 1998, the Chief, Policy and Program Planning Division, Common Carrier Bureau, issued an Order granting the motion of the Commercial Internet eXchange Association (CIX) requesting an extension of the comment deadline in the above-mentioned docket. *Bell Atlantic's Petition for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket 98-11, Order, 13 FCC Rcd 4495 (1998).

²⁶ Bell Atlantic Petition at 11.

²⁷ *Alliance for Public Technology Petitions the Commission for Issuance of a Notice of Inquiry and a Notice of Proposed Rulemaking to Implement Section 706 of the Telecommunications Act*, RM 9844, Public Notice, 13 FCC Rcd 5126 (1998).

²⁸ APT Petition at 2.

²⁹ *Id.* at 17.

³⁰ *Id.* at 2-3.

³¹ *Id.* at 3.

framework for developing and supporting community/provider partnerships designed to aggregate effective demand for community-based applications" of new services.³²

25. On February 25, 1998, and March 5, 1998, respectively, U S WEST and Ameritech filed petitions with the Commission pursuant to section 706 of the 1996 Act.³³ Like Bell Atlantic, both U S WEST and Ameritech ask the Commission not to apply section 251(c) to their respective high-speed data services.³⁴ In addition, U S WEST argues that the Commission should either forbear from applying section 271 to its "data carriage," or in the alternative define LATA boundaries so as to permit U S WEST to aggregate data traffic across present LATA boundaries.³⁵ Ameritech contends that the Commission should create "one global LATA for packet-switched services."³⁶ Ameritech also asks the Commission to clarify that its separate affiliate need comply only with the separation requirements adopted in the *Competitive Carrier Fifth Report and Order*,³⁷ in order to be regulated as a non-incumbent LEC and, therefore, not be subject to the obligations of section 251(c).³⁸

26. On May 27, 1998, ALTS filed a petition for declaratory ruling pursuant to section 706 of the 1996 Act.³⁹ The ALTS petition asks the Commission to clarify that the obligations of

³² *Id.* at 3. We note that we do not address all of the issues raised by the APT Petition in the context of this rulemaking, but rather only address those issues discussed in the NPRM below.

³³ *Commission Seeks Comment on U S WEST Petition for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket No. 98-26, Public Notice, 13 FCC Rcd 4739 (1998); *Commission Seeks Comment on Ameritech Petition for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket No. 98-32, Public Notice, 13 FCC Rcd 4741 (1998). On March 16, 1998, the Chief, Policy and Program Planning Division, Common Carrier Bureau, issued an Order granting the motion of ALTS to consolidate the pleading cycles of the Bell Atlantic, U S WEST, and Ameritech petitions. *Petition of Bell Atlantic for Relief from Barriers to Deployment of Advanced Telecommunications Services, Petition of U S WEST for Relief from Barriers to Deployment of Advanced Telecommunications Services, Petition of Ameritech for Relief from Barriers to Deployment of Advanced Telecommunications Services, Motion to Consolidate Filing of Comments and Replies by the Association for Local Telecommunications Services*, Order, 13 FCC Rcd 5179 (1998).

³⁴ Ameritech Petition at 22-27; U S WEST Petition at 44-52.

³⁵ U S WEST Petition at 44.

³⁶ Ameritech Petition at 13.

³⁷ *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, CC Docket No. 79-252, Fifth Report and Order, 98 F.C.C. 2d 1191 (1984) (*Competitive Carrier Fifth Report and Order*).

³⁸ Ameritech Petition at 14-22.

³⁹ *Pleading Cycle Established for Comments on Association for Local Telecommunications Services Petition for Declaratory Ruling Regarding Section 706*, CC Docket No. 98-78, Public Notice, DA 98-1019 (rel.

sections 251, 252 and 271 of the Act apply fully to digital and broadband services and facilities.⁴⁰ ALTS suggests, for example, that the Commission declare that incumbent LECs are obligated to unbundle a full range of loops and electronic elements attached to loops. In addition, ALTS asks the Commission to initiate a rulemaking to strengthen its collocation rules in order to reduce obstacles to competitive provision of telecommunications services.⁴¹

27. On June 9, 1998, SBC filed a petition with the Commission pursuant to section 706 of the 1996 Act.⁴² SBC does not ask the Commission to forbear from applying the provisions of section 271 of the Act, but rather seeks forbearance from the unbundling and resale provisions of sections 251(c) and 252 of the Act with respect to its ADSL facilities and services.⁴³ SBC also seeks relief from dominant carrier treatment of its ADSL service.⁴⁴ In addition, SBC seeks relief from the "most favored nation" obligation of section 252(i) of the Act.⁴⁵ We address many of the issues raised by all six of these petitions in both the Order and NPRM.

C. Advanced Services

28. The existing telephone network in the United States, with a line running into virtually every home and business, has worked admirably for the provision of ordinary voice telephony. Until recently, however, it was not thought to be suitable for interactive video or high speed data communications. First, the copper telephone wire running the "last mile" to each home was generally thought to be capable of carrying only a relatively modest stream of information. Second, the public telephone network is circuit-switched, that is, it maintains an end-to-end channel of communication for the entire duration of the call. While this is a useful means of transmitting ordinary voice telephony, it is not efficient for transmitting data and other types of information.

29. xDSL technology, coupled with packet-switched networks, addresses both of these constraints. Two xDSL modems are attached to each telephone loop: one at the subscriber's premises, and one at the telephone company's central office. The use of xDSL

May 28, 1998).

⁴⁰ ALTS Petition at 2.

⁴¹ *Id.* at 18-22.

⁴² *Pleading Cycle Established for Comments on SBC Petition for Relief from Regulation Pursuant to Section 706 of the Telecommunications Act and 47 U.S.C. § 160 for ADSL Infrastructure and Service*, CC Docket No. 98-91, Public Notice, DA 98-1111 (rel. June 11, 1998).

⁴³ SBC Petition at 25-28.

⁴⁴ *Id.* at 30-32.

⁴⁵ *Id.* at 33-34.

modems allows transmission of data over the copper loop at vastly higher speeds than those used for voice telephony or analog data transmission.⁴⁶ Further, the customer can potentially make ordinary voice calls over the public switched network at the same time as he or she is using the same line for high-speed data transmission.⁴⁷

30. In circumstances in which the xDSL-equipped line carries separate POTS ("plain old telephone service") and data channels, the carrier must separate those two streams when they reach the telephone company's central office. This is done in a device known as a digital subscriber line access multiplexer, or DSLAM. The DSLAM and central office xDSL modem send the customer's POTS traffic to the public, circuit-switched telephone network. The DSLAM sends the customer's data traffic (combined with that of other xDSL users) to a packet-switched data network. Thus, the data traffic, after traversing the local loop, avoids the circuit-switched telephone network altogether.

31. Once on the packet-switched network, the data traffic is routed to the location selected by the customer, for example, a corporate local area network or an Internet service provider. That location may itself be a gateway to a new packet-switched network or set of networks, like the Internet. We have attached a diagram illustrating this network architecture as Appendix B.

V. MEMORANDUM OPINION AND ORDER

A. Applicability of Section 251(c) to Incumbent Local Exchange Carriers

1. Introduction

32. In this section, we address several issues that ALTS raises in its petition for a declaratory ruling.⁴⁸ First, as described in greater detail below, we grant the ALTS petition to the extent it asks the Commission to clarify that the obligations of sections 251 and 252 of the Act apply to advanced services and the facilities used to provide those services. We hold that,

⁴⁶ An ordinary voice channel, in the United States, generally allows transmission of digital information at the rate of 56,000 bits per second. By contrast, the most widely deployed xDSL service (known as ADSL) allows data to be transmitted to the home or residence at up to several *million* bits per second, depending on loop length, loop design, and the technology deployed. Provision of xDSL service is subject to a variety of important technical constraints. One is the length of the subscriber loop: ADSL, the most widely deployed xDSL-based service, generally requires loops of less than 18,000 feet using current technology. Another is the quality of the loop, which must be free of excessive bridged taps, loading coils, and other impediments. "Conditioning" loops to remove those impediments, or constructing fiber-based digital loop carrier systems to overcome loop length difficulties, can be expensive. For further explanation of these loop electronics, see *infra* nn.314, 315.

⁴⁷ We note that, at the present time, not all existing xDSL deployments are taking advantage of that capability; some carriers offer only high-speed data services without the voice component over the xDSL-equipped loop.

⁴⁸ See ALTS Petition at 10-32.

pursuant to the Act and our implementing orders, incumbent LECs are required to (1) provide interconnection for advanced services; and (2) provide access to unbundled network elements, including conditioned loops capable of transmitting high-speed digital signals, used by the incumbent LEC to provide advanced services. We also note that under the plain terms of the Act, incumbent LECs have an obligation to offer for resale, pursuant to section 251(c)(4), all advanced services that they generally provide to subscribers who are not telecommunications carriers. Finally, for the reasons discussed below, we conclude that incumbent LECs have an obligation under the statute and our implementing rules to offer collocation arrangements that reduce unnecessary costs and delays for competitors and that optimize the amount of space available for collocation.

2. Statutory Classification of Advanced Services

33. Before turning to the specific declaratory rulings requested by ALTS, we first must address the regulatory classification of "advanced services." The specific obligations of the 1996 Act depend on application of the statutory categories established in the Act's definitions section.⁴⁹ In particular, we consider whether advanced services constitute "telecommunications services," and, if so, what type of telecommunications service.

a. Telecommunications Services

(1) Background

34. The obligations imposed by sections 251 and 252 of the Act are triggered by the provision of a "telecommunications service."⁵⁰ Thus, for example, section 251(a) requirements apply to each "telecommunications carrier,"⁵¹ which is to say, each "provider of telecommunications services."⁵² Section 251(c)(3) obligates incumbent LECs to provide unbundled access to "network elements," which is to say, "facilit[ies] or equipment used in the provision of a telecommunications service."⁵³ The Act defines "telecommunications service" to

⁴⁹ See 47 U.S.C. § 153.

⁵⁰ Under the 1996 Act, any service with a communications component must be either a "telecommunications service" or an "information service" (but not both). See *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, FCC No. 98-67, at ¶¶ 21-48 (rel. Apr. 10, 1998) (*Report to Congress on Universal Service*).

⁵¹ 47 U.S.C. § 251(a).

⁵² 47 U.S.C. § 153(44). The definition excludes aggregators of telecommunications services, as defined in section 226. See 47 U.S.C. § 226.

⁵³ 47 U.S.C. §§ 251(c)(3), 153(29).

mean "the offering of telecommunications for a fee directly to the public" ⁵⁴ It defines "telecommunications" to mean "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." ⁵⁵

(2) Discussion

35. We conclude that advanced services are telecommunications services. The Commission has repeatedly held that specific packet-switched services are "basic services," ⁵⁶ that

⁵⁴ 47 U.S.C. § 153(46).

⁵⁵ 47 U.S.C. § 153(43).

⁵⁶ The Commission, under the regime established in its *Computer II* proceeding, classified all services offered over a telecommunications network as either "basic" or "enhanced." A basic service consists of the offering, on a common carrier basis, of "pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information." *Amendment of Section 64.702 of the Commission's Rules and Regulations (Computer II)*, 77 FCC 2d 384, 419-20, ¶¶ 93, 96 (1980) (*Computer II Final Decision*), *recon.*, 84 FCC 2d 50 (1980) (*Reconsideration Order*), *further recon.*, 88 FCC 2d 512 (1981) (*Further Reconsideration Order*), *affirmed sub nom. Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983). An enhanced service, by contrast, includes "any offering over the telecommunications network which is more than a basic transmission service." *Id.* at 420, ¶ 97. We have found that Congress intended the categories of "telecommunications" and "information service," established in the 1996 Act, to parallel these "basic" and "enhanced" categories. *Report to Congress on Universal Service*, ¶ 21. The Commission has concluded that the definitions of "information service" and "enhanced service" should be interpreted to extend to the same functions. *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905 (1996) (*Non-Accounting Safeguards Order*), Order on Reconsideration, 12 FCC Rcd 2297 (1997), *recon. pending, petition for summary review in part denied and motion for voluntary remand granted sub nom., Bell Atlantic v. FCC*, No. 97-1067 (D.C. Cir. filed Mar. 31, 1997), Second Order on Reconsideration, 12 FCC Rcd 8653 (1997), *aff'd sub nom. Bell Atlantic Telephone Cos. v. FCC*, 131 F.3d 1044 (D.C. Cir. 1997), Second Report and Order, 12 FCC Rcd 15756 (1997). In a separate proceeding, we have sought comment on whether the definitions of "telecommunications service" and "basic service" should be interpreted to extend to the same functions. *Amendment of Section 64.702 of the Commission's Rules and Regulations (Computer III)*, Report and Order, CC Docket No. 85-229, Phase I, 104 FCC 2d 958 (1986) (*Phase I Order*), *recon.*, 2 FCC Rcd 3035 (1987) (*Phase I Recon. Order*), *further recon.*, 3 FCC Rcd 1135 (1988) (*Phase I Further Recon. Order*), *second further recon.*, 4 FCC Rcd 5927 (1989) (*Phase I Second Further Recon.*), *Phase I Order and Phase I Recon. Order, vacated, California v. FCC*, 905 F.2d 1217 (9th Cir. 1990) (*California I*); Phase II, 2 FCC Rcd 3072 (1987) (*Phase II Order*), *recon.*, 3 FCC Rcd 1150 (1988) (*Phase II Recon. Order*), *further recon.*, 4 FCC Rcd 5927 (1989) (*Phase II Further Recon. Order*), *Phase II Order vacated, California I*, 905 F.2d 1217 (9th Cir. 1990); *Computer III Remand Proceedings*, 5 FCC Rcd 7719 (1990) (*ONA Remand Order*), *recon.*, 7 FCC Rcd 909 (1992), *pets. for review denied, California v. FCC*, 4 F.3d 1505 (9th Cir. 1993) (*California II*); *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, 6 FCC Rcd 7571 (1991) (*BOC Safeguards Order*), *recon. dismissed in part, Order*, 11 FCC Rcd 12513 (1996); *BOC Safeguards Order vacated in part and remanded, California v. FCC*, 39 F.3d 919 (9th Cir. 1994) (*California III*), *cert. denied*, 115 S.Ct. 1427 (1995) (referred to collectively as the *Computer III* proceeding). We note that we are addressing modifications to these rules in another proceeding. *Computer III Further Remand*

is to say, pure transmission services.⁵⁷ xDSL and packet switching are simply transmission technologies. To the extent that an advanced service does no more than transport information of the user's choosing between or among user-specified points, without change in the form or content of the information as sent and received, it is "telecommunications," as defined by the Act. Moreover, to the extent that such a service is offered for a fee directly to the public, it is a "telecommunications service."⁵⁸

36. Incumbent LECs have proposed, and are currently offering, a variety of services in which they use xDSL technology and packet switching to provide members of the public with a transparent, unenhanced, transmission path. Neither the petitioners, nor any commenter, disagree with our conclusion that a carrier offering such a service is offering a "telecommunications service."⁵⁹ An end-user may utilize a telecommunications service together with an information service, as in the case of Internet access. In such a case, however, we treat the two services separately: the first service is a telecommunications service (*e.g.*, the xDSL-enabled transmission path), and the second service is an information service, in this case Internet access.⁶⁰

37. We note that, pursuant to the Commission's *Computer Inquiry and Open Network Architecture (ONA)* proceedings, BOCs are permitted to offer information services on either an integrated basis, *i.e.* through the regulated telephone company, or through a separate affiliate. The BOCs are obligated, however, to unbundle and make available to competing information

Proceedings, Bell Operating Company Provision of Enhanced Services, 1998 Biennial Regulatory Review -- Review of Computer III and ONA Safeguards and Requirements, CC Docket Nos. 95-20 and 98-10, Further Notice of Proposed Rulemaking, 13 FCC Rcd 1640 (1998) (*Computer III FNPRM*).

⁵⁷ See *Independent Data Communications Manufacturers Association, Inc. Petition for Declaratory Ruling that AT&T's InterSpan Frame Relay Service Is a Basic Service*, *American Telephone and Telegraph Company Petition for Declaratory Ruling that all Interexchange Carriers be Subject to the Commission's Decision in the IDCMA Petition*, Memorandum Opinion and Order, 10 FCC Rcd 13717 (1995) (*Frame Relay Order*), *recon. pending*; *American Telephone and Telegraph Company, for Authority under Section 214 of the Communications Act of 1934, as amended, to Install and Operate Packet Switches at Specified Telephone Company Locations in the United States*, Memorandum Opinion, Order and Authorization, 94 FCC 2d 48 (1983); *Computer II Final Decision*, 77 FCC 2d at 420, ¶ 95 ("Use internal to the carrier's facility of . . . bandwidth compression techniques, . . . packet switching, error control techniques, etc. that facilitate economical, reliable movement of information does not alter the nature of the basic service."); see generally, *Report to Congress on Universal Service*, at ¶ 41. So long as the user sees no protocol conversion on the service level, it is irrelevant whether protocol processing takes place internal to the call. See *Non-Accounting Safeguards Order*, 11 FCC Rcd at 21958, ¶ 106; see also *Computer III Phase II Order*, 2 FCC Rcd at 3081-82, ¶¶ 64-71 (1987).

⁵⁸ See 47 U.S.C. § 153(46).

⁵⁹ See, *e.g.*, CIX Comments (CC Docket No. 98-11) at 13, 15; AT&T Reply Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 11.

⁶⁰ See *Frame Relay Order*, 10 FCC Rcd at 13722-23, ¶¶ 40-46; *Report to Congress on Universal Service*, at ¶ 60; CIX Comments (CC Docket No. 98-11) at 15.

service providers (ISPs): (1) the network services that underlie the BOCs' own information services (pursuant to the *Computer Inquiry* proceedings); and (2) additional network services that the BOCs do not use in their information service offerings (pursuant to *ONA*).⁶¹ We note that BOCs offering information services to end users of their advanced service offerings, such as xDSL, are under a continuing obligation to offer competing ISPs nondiscriminatory access to the telecommunications services utilized by the BOC information services. In the NPRM, we seek comment on whether we should apply any similar safeguards if a BOC affiliate offers advanced services in conjunction with a BOC information service.⁶²

b. Telephone Exchange Service or Exchange Access

(1) Background

38. Certain obligations under section 251 turn on whether the carrier is providing "telephone exchange service" or "exchange access."⁶³ Pursuant to section 251(c)(2), an incumbent LEC must provide interconnection only "for the transmission and routing of telephone exchange service and exchange access."⁶⁴ Section 251(b) applies to each "local exchange carrier"; section 153(26), in turn, defines "local exchange carrier" to include any person "engaged in the provision of telephone exchange service or exchange access."⁶⁵

39. Prior to 1996, the Communications Act defined "telephone exchange service" to include "service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating

⁶¹ We also note that GTE is subject to ONA. *See Application of Open Network Architecture and Nondiscrimination Safeguards to GTE Corporation*, 9 FCC Rcd 4922, 4924, 4932-36, ¶¶ 3, 16-24 (1994).

⁶² *See infra* ¶ 49.

⁶³ The Act defines "telephone exchange service" as:

(A) service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge, or (B) comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service.

47 U.S.C. § 153(47). The Act defines "exchange access" as "the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services." 47 U.S.C. § 153(16). "Telephone toll service" means "telephone service between stations in different exchange areas for which there is made a separate charge not included in contracts with subscribers for exchange service." 47 U.S.C. § 153(48).

⁶⁴ 47 U.S.C. § 251(c)(2).

⁶⁵ 47 U.S.C. §§ 251(b), 153(26).

service of the character ordinarily furnished by a single exchange and which is covered by the exchange service charge."⁶⁶ In the 1996 Act, Congress expanded that definition to include "comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service."⁶⁷ The Act defines "exchange access" to mean "the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services."⁶⁸

(2) Discussion

40. We conclude that advanced services offered by incumbent LECs are either "telephone exchange service" or "exchange access." At this time, we do not decide whether, or to what extent, specific xDSL-based services offered by incumbent LECs are "telephone exchange service" as opposed to "exchange access." We note, however, that this question has been raised in other pending proceedings, and we will continue to address it on a case-by-case basis.⁶⁹

41. Nothing in the statutory language or legislative history limits these terms to the provision of voice, or conventional circuit-switched service. Indeed, Congress in the 1996 Act expanded the scope of the "telephone exchange service" definition to include, for the first time, "comparable service" provided by a telecommunications carrier.⁷⁰ The plain language of the statute thus refutes any attempt to tie these statutory definitions to a particular technology.⁷¹

⁶⁶ This language is now 47 U.S.C. § 153(47)(A).

⁶⁷ 47 U.S.C. § 153(47)(B).

⁶⁸ 47 U.S.C. § 153(16).

⁶⁹ See, e.g., *GTE Telephone Operations, GTOC Tariff No. 1, GTOC Transmittal No. 1148 (GTE DSL Solutions -- ADSL Service)*, CCB/CPD 98-79 (set for investigation May 28, 1998); *SBC Communications, Inc., Pacific Bell Telephone Company, Pacific Transmittal No. 1986*, CC Docket No. 98-103 (set for investigation June 28, 1998).

⁷⁰ 47 U.S.C. § 153(47)(B). This amendment in turn has modified the scope of "exchange access," which the Act defines as "the offering of access to *telephone exchange services or facilities* for the purpose of the origination or termination of telephone toll services." 47 U.S.C. § 153(16) (emphasis added).

⁷¹ See Comments of Senators Stevens and Burns, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45 (Report to Congress) (filed Jan. 26, 1998), at 2, n.1:

[The 1996 amendment] would not have been necessary had Congress intended to limit telephone exchange service to traditional voice telephony. The new definition was intended to ensure that the definition of local exchange carrier, which hinges in large part on the definition of telephone exchange service, was not made useless by the replacement of circuit switched technology with other means -- for example packet switches or computer intranets -- of communicating information within a local area.

Consequently, we reject U S WEST's contention that those terms refer only to local circuit-switched voice telephone service or close substitutes, and the provision of access to such services.⁷²

42. We note that in a typical xDSL service architecture, the incumbent LEC uses a DSLAM to direct the end-user's data traffic into a packet-switched network, and across that packet-switched network to a terminating point selected by the end-user. Every end-user's traffic is routed onto the same packet-switched network, and there is no technical barrier to any end-user establishing a connection with any customer located on that network (or, indeed, on any network connected to that network).⁷³ We see nothing in this service architecture mandating a conclusion that advanced services offered by incumbent LECs fall outside of the "telephone exchange service" or "exchange access" definitions set forth in the Act.

43. U S WEST's reliance on the fact that the Commission in the *Local Competition Order* noted that CMRS carriers "provide local, two-way switched voice service," as part of the analysis leading to its conclusion that such carriers provide telephone exchange service, is misplaced.⁷⁴ The Commission nowhere suggested that two-way voice service is a *necessary* component of telephone exchange service.⁷⁵ It certainly did not suggest that two-way voice service is a necessary component of exchange access.

44. We also reject U S WEST's contention that it is not subject to section 251(c) for its provision of advanced services because such services are neither "telephone exchange services" nor "exchange access services."⁷⁶ To the extent that it offers advanced services, U S WEST contends, it is not acting as a "local exchange carrier" or "incumbent local exchange carrier," and the obligations imposed by section 251(c) on incumbent local exchange carriers do not apply.

⁷² See U S WEST Comments (CC Docket No. 98-78) at 15-17; see also U S WEST Reply Comments (CC Docket No. 98-26) at 19-20; see also NTIA July 17 *Ex Parte* at 7, n.22 ("neither [section 251(c)] nor its legislative history suggests that its requirements apply only to an ILECs' circuit-switched facilities and services").

⁷³ Subscribers typically set up what are termed "permanent virtual connections" in routing their traffic across a packet-switched network. Such a connection, which gives the end user an "always-on" connection over a preset physical path, is easier to provision than a "switched virtual circuit," in which the connection path is determined on a call-by-call basis. A "permanent virtual connection," however, is not so "permanent" as the term would suggest. Any subscriber located on a packet-switched network can request the establishment of a permanent virtual connection connecting its own computers with those of any other subscriber. Indeed, it appears that customers can easily create and tear down different permanent virtual connections to different destinations on the network, giving them a degree of "switched" functionality.

⁷⁴ See U S WEST Comments (CC Docket No. 98-78) at 16 & n.16.

⁷⁵ See *Local Competition Order*, 11 FCC Rcd at 15999, ¶ 1013.

⁷⁶ See U S WEST Petition at 45, n.24; U S WEST Comments (CC Docket Nos. 98-11, 98-32) at 7; U S WEST Reply Comments (CC Docket No. 98-26) at 18-20.

Because we have determined that advanced services offered by incumbent LECs are telephone exchange service or exchange access, we need not and do not address the section 251(c) obligations of an incumbent local exchange carrier offering services other than telephone exchange service or exchange access.⁷⁷

3. Interconnection

a. Background

45. Section 251(a) of the Act requires all "telecommunications carriers" to "interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers." Section 251(c)(2) imposes interconnection obligations on incumbent LECs for purposes of transmitting and routing telephone exchange or exchange access traffic.

b. Discussion

46. We agree with ALTS that the interconnection obligations of section 251 of the Act apply equally to facilities and equipment used to provide data transport functionality and voice functionality.⁷⁸ Because advanced services that provide members of the public with a transparent, unenhanced transmission path are telecommunications services, all carriers offering such services are subject to the requirements of section 251(a), including the interconnection obligation set out in section 251(a)(1). In addition, because such services offered by an incumbent LEC are either "telephone exchange services" or "exchange access," the incumbent LEC is subject to the interconnection obligations of section 251(c). Thus, any telecommunications carrier in need of interconnection with an incumbent LEC network "for purposes of transmitting and routing telephone exchange traffic or exchange access traffic or both" is entitled to interconnection pursuant to section 251(c)(2) of the Act.⁷⁹

47. For purposes of determining the interconnection obligation of carriers, the Act does not draw a regulatory distinction between voice and data services.⁸⁰ In particular, the Commission drew no such distinction in the *Local Competition Order*, when it required incumbent LECs to offer interconnection with competitors for the transmission and routing of

⁷⁷ See *supra* ¶¶ 40-43.

⁷⁸ ALTS Petition at 12-14; *see also* Level 3 Comments (CC Docket No. 98-78) at 4; MCI Comments (CC Docket No. 98-78) at 2; NEXTLINK Comments (CC Docket No. 98-78) at 13-14; Teleport Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 10; TRA Comments (CC Docket No. 98-78) at 2; WorldCom Comments (CC Docket No. 98-78) at 2; LCI Comments (CC Docket No. 98-78) at 6, 8. *But see, e.g.*, SBC Comments (CC Docket No. 98-78) at 19-21; USTA Comments (CC Docket No. 98-78) at 2, 4-7.

⁷⁹ *Local Competition Order*, 11 FCC Rcd at 15594, ¶ 184.

⁸⁰ See *supra* ¶¶ 40-43.

telephone exchange and exchange access traffic. Thus, the interconnection obligations of incumbent LECs apply to packet-switched as well as circuit-switched services.

48. The ability of competitive LECs to interconnect with incumbent LEC data networks "will permit all carriers, including small entities and small incumbent LECs, to plan regional or national networks using the same interconnection points in similar networks nationwide."⁸¹ Our rules make it possible for competing telecommunications providers to offer seamless service to end-users by interconnecting with incumbents' networks. We therefore grant the ALTS request that we declare that the interconnection obligations of sections 251(a) and 251(c)(2) apply to incumbents' packet-switched telecommunications networks and the telecommunications services offered over them.

49. We reject BellSouth's argument that Congress intended that section 251(c) not apply to new technology not yet deployed in 1996.⁸² Nothing in the statute or legislative history indicates that it was intended to apply only to existing technology. Moreover, Congress was well aware of the Internet and packet-switched services in 1996,⁸³ and the statutory terms do not include any exemption for those services.⁸⁴

4. Unbundled Network Elements

a. Background

50. We next consider the unbundling obligations of section 251(c)(3). Section 251(c)(3) requires incumbent LECs 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 nondiscriminatory"⁸⁵ Section 153(29) defines "network element" to include any "facility or equipment used in the provision of a telecommunications service" along with the "features, functions, and capabilities that are provided by means of such facility or equipment."⁸⁶ The Commission noted in the *Local Competition Order*, however, that section 251(d)(2) gave it

⁸¹ *Local Competition Order*, 11 FCC Rcd at 15592, ¶ 179.

⁸² *See* BellSouth Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 10-11.

⁸³ For example, Congress in the 1996 Act favored "the continued development of the Internet," which the Act defines as "the international computer network of . . . interoperable packet-switched data services." 47 U.S.C. § 230(b)(1), (e)(1); *see also* 47 U.S.C. § 223.

⁸⁴ *See, e.g.*, WorldCom Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 30.

⁸⁵ 47 U.S.C. § 251(c)(3); *see also* *Local Competition Order*, 11 FCC Rcd at 15640, ¶ 278.

⁸⁶ 47 U.S.C. § 153(29); *see also* *Local Competition Order*, 11 FCC Rcd at 15627-34, ¶¶ 249-64.

authority "to refrain from requiring incumbent LECs to provide all network elements for which it is technically feasible to provide access."⁸⁷ In considering whether to refrain from requiring the unbundling of a particular network element, the Commission is to weigh the standards set out in section 251(d)(2), as well as any other standards the Commission considers consistent with the objectives of the 1996 Act.⁸⁸

51. So as to "promote efficient, rapid, and widespread new entry,"⁸⁹ the Commission identified a minimum list of seven network elements that incumbent LECs must make available to new entrants.⁹⁰ The Commission did not identify DSLAMs or packet switches as network elements that incumbent LECs must unbundle. It emphasized, however, that its list was a minimum one, because an exhaustive list would not accommodate changes in technology or differing local conditions.⁹¹ Further, the Commission noted that it might identify "additional, or perhaps different" unbundling requirements in the future.⁹²

b. Discussion

(1) Loops

52. We grant the ALTS request for a declaratory ruling that incumbent LECs are required, pursuant to section 251(c)(3) of the Act, to provide unbundled loops capable of transporting high speed digital signals.⁹³ ALTS asserts that competitive LECs are having extreme difficulty obtaining the digital loops needed to provide advanced services.⁹⁴ We agree with ALTS that, if we are to promote the deployment of advanced telecommunications capability to all

⁸⁷ *Local Competition Order*, 11 FCC Rcd at 15641, ¶ 279.

⁸⁸ 47 U.S.C. § 251(d).

⁸⁹ *Local Competition Order*, 11 FCC Rcd at 15624, ¶ 241.

⁹⁰ *Id.* at 15683, ¶ 366.

⁹¹ *Id.* at 15624-25, ¶ 243.

⁹² *Id.* at 15626, ¶ 246.

⁹³ ALTS Petition at 13; *see also*, e.spire Comments (CC Docket No. 98-78) at 5, LCI Reply Comments (CC Docket No. 98-78) at 6-7, MCI Comments (CC Docket No. 98-78) at 2-3, NEXTLINK Comments (CC Docket No. 98-78) at 5, 8-9, WorldCom Comments (CC Docket No. 98-78) at 11, NAS Comments (CC Docket No. 98-78) at 2.

⁹⁴ ALTS Petition at 3.

Americans, competitive LECs must be able to obtain access to incumbent LEC xDSL-capable loops on an unbundled and nondiscriminatory basis.⁹⁵

53. In the *Local Competition Order*, the Commission identified the local loop as a network element that incumbent LECs must unbundle "at any technically feasible point."⁹⁶ It defined the local loop to include "two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide services such as ISDN, ADSL, HDSL, and DS1-level signals."⁹⁷ To the extent technically feasible, incumbent LECs must "take affirmative steps to condition existing loop facilities to enable requesting carriers to provide services not currently provided over such facilities."⁹⁸ For example, if a carrier requests an unbundled loop for the provision of ADSL service, and specifies that it requires a loop free of loading coils, bridged taps, and other electronic impediments, the incumbent must condition the loop to those specifications, subject only to considerations of technical feasibility. The incumbent may not deny such a request on the ground that it does not itself offer advanced services over the loop, or that other advanced services that the competitive LEC does not intend to offer could be provided over the loop. As the Commission stated in the *Local Competition Order*, "section 251(c)(3) does not limit the types of telecommunications services that competitors may provide over unbundled elements to those offered by the incumbent LEC."⁹⁹

54. The incumbent LECs' obligation to provide requesting carriers with fully functional conditioned loops extends to loops provisioned through remote concentration devices such as digital loop carriers (DLC). The Commission concluded in the *Local Competition Order* that it was "technically feasible" to unbundle loops that pass through an integrated DLC or similar remote concentration devices, and required incumbent LECs to unbundle such loops for competitive LECs.¹⁰⁰

⁹⁵ See, e.g., NEXTLINK Comments (CC Docket No. 98-78) at 5 (Commission should clarify that for essential network elements (including the unbundled loop), incumbent LECs have a continuing obligation to provide nondiscriminatory access to such facilities for the provision of any telecommunications service); NAS Comments (CC Docket No. 98-78) at 2 (Commission should reaffirm that incumbent LECs must offer xDSL-capable loops as unbundled network elements); TCG Comments (CC Docket No. 98-78) at 4-6 (the ability of an xDSL loop to carry high speed data is an "embedded feature" functionally inseparable from the physical xDSL-conditioned copper loop, which is expressly an unbundled network element under the *Local Competition Order*); TRA Comments (CC Docket No. 98-78) at 7 (competitive LECs must have unbundled access to the network elements necessary to provide advanced telecommunications services).

⁹⁶ *Local Competition Order*, 11 FCC Rcd at 15690, ¶ 379.

⁹⁷ *Id.* at 15691, ¶ 380.

⁹⁸ *Id.* at 15692, ¶ 382. The requesting carrier bears the cost of such conditioning. *Id.*

⁹⁹ *Id.* at 15691-92, ¶ 381.

¹⁰⁰ *Id.* at 15692, ¶ 383.

55. To the extent that a competitive LEC cannot obtain nondiscriminatory access to an xDSL-capable loop, or any other loop capabilities to which it is entitled by virtue of section 251(c)(3) and the *Local Competition Order*, the competitive LEC can pursue remedies before the Commission and the appropriate state commissions. We note that the Commission has recently adopted an expedited complaint process to resolve these types of competitive issues in an accelerated fashion.¹⁰¹

56. Under our existing rules, incumbent LECs are also required to provide competing carriers with nondiscriminatory access to the operations support systems (OSS) functions for pre-ordering, ordering, and provisioning loops.¹⁰² If new entrants are to have a meaningful opportunity to compete, they must be able to determine during the pre-ordering process as quickly and efficiently as can the incumbent, whether or not a loop is capable of supporting xDSL-based services.¹⁰³ An incumbent LEC does not meet the nondiscrimination requirement if it has the capability electronically to identify xDSL-capable loops, either on an individual basis or for an entire central office, while competing providers are relegated to a slower and more cumbersome process to obtain that information. In the NPRM below, we seek comment on whether we should adopt any additional rules to ensure that competing providers have nondiscriminatory access to the loop information they need to provide advanced services.¹⁰⁴

(2) Other Network Elements

57. We further grant ALTS' petition to the extent that ALTS requests a declaratory ruling that advanced services are telecommunications services, and that the facilities and equipment used to provide advanced services are network elements subject to the obligations in section 251(c).¹⁰⁵ Given our conclusion above that advanced services offered by incumbent LECs

¹⁰¹ *Implementation of the Telecommunications Act of 1996 - Amendment of Rules Governing Procedures to be Followed When Formal Complaints are Filed Against Common Carriers*, CC Docket No. 96-238, Second Report and Order, (rel. July 14, 1998).

¹⁰² *Local Competition Order*, 11 FCC Rcd at 15766, ¶ 523.

¹⁰³ *See id.* at 15763-64, ¶ 518. The Commission's rules define pre-ordering and ordering collectively as "the exchange of information between telecommunications carriers about current or proposed customer products and services or unbundled network elements or some combination thereof." 47 C.F.R. § 51.5. Pre-ordering generally includes those activities that a carrier undertakes to gather and confirm the information necessary to formulate an accurate order for a customer.

¹⁰⁴ *See infra* ¶¶ 157-72.

¹⁰⁵ ALTS petition at 14-17; NTIA July 17 *Ex Parte* at n.34.

are telecommunications services, all equipment and facilities used in the provision of advanced services are "network elements" as defined by section 153(29).¹⁰⁶

58. We seek comment in the NPRM below on the specific unbundling obligations that would apply to the network elements used to provide advanced services.¹⁰⁷ We note, for example, that the section 251(c)(3) unbundling requirement is subject to the question of technical feasibility. We seek comment in the NPRM on whether the Commission should weigh any criteria under section 251(d)(2) other than those expressly listed in that provision to determine the extent to which network elements used to provide advanced services should be unbundled.¹⁰⁸

5. Resale Obligations Under Section 251(c)(4)

(a) Background

59. Section 251(c)(4) requires incumbent LECs to offer for resale at wholesale rates "any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers."¹⁰⁹ The Commission held in the *Local Competition Order* that this obligation extends to *all* telecommunications services, not merely voice services, that an incumbent LEC provides to subscribers who are not telecommunications carriers.¹¹⁰ The Commission concluded that an incumbent LEC must establish a wholesale rate for every retail service that: (1) meets the statutory definition of a "telecommunications service," and (2) is provided at retail to subscribers who are not telecommunications carriers.¹¹¹ The Commission concluded, however, that exchange access services are generally offered to telecommunications carriers rather than retail subscribers, and thus were not subject to the provisions of section 251(c)(4).¹¹²

¹⁰⁶ The term "network element" is defined in the Act as "a facility or equipment used in the provision of a telecommunications service. Such term also includes features, functions and capabilities that are provided by means of such facility or equipment" 47 U.S.C. § 153(29).

¹⁰⁷ See *infra* ¶ 82.

¹⁰⁸ See *infra* ¶ 83. We also note that, pursuant to section 251(f)(2) of the Act, incumbent LECs "with fewer than two percent of the nation's subscriber lines installed in the aggregate nationwide" may petition state commissions for suspension or modification of the requirements in section 251(c). 47 U.S.C. § 251(f)(2).

¹⁰⁹ 47 U.S.C. § 251(c)(4).

¹¹⁰ *Local Competition Order*, 11 FCC Rcd at 15934-36, ¶¶ 871-77; see also, e.g., AT&T Reply Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 11.

¹¹¹ *Local Competition Order*, 11 FCC Rcd at 15934, ¶ 871.

¹¹² *Id.* at 15934, ¶ 873.

(b) Discussion

60. Given our determination above that advanced services offered by incumbent LECs are telecommunications services, by the plain terms of the Act, incumbent LECs have the obligation to offer for resale, pursuant to section 251(c)(4), all advanced services that they generally provide to subscribers who are not telecommunications carriers. The Commission in the *Local Competition Order* similarly emphasized that the resale obligation extends to *all* such telecommunications services, including advanced services.¹¹³

61. To the extent that advanced services are local exchange services, they are subject to the resale provisions of section 251(c)(4). In the *Local Competition Order*, however, the Commission concluded that exchange access services are not subject to the provisions of section 251(c)(4) because "[t]he vast majority of purchasers of interstate access services are telecommunications carriers, not end users."¹¹⁴ To the extent that advanced services are exchange access services, we believe that advanced services are fundamentally different from the exchange access services that the Commission referenced in the *Local Competition Order* and concluded were not subject to section 251(c)(4).¹¹⁵ We expect that advanced services will be offered predominantly to residential or business users or to Internet service providers. None of these purchasers are telecommunications carriers.¹¹⁶ We examine this issue further and propose specific requirements in the NPRM below.¹¹⁷

6. Collocation

a. Background

62. In order to provide advanced services, new entrants may need to collocate equipment on the incumbent LEC's premises for interconnection and access to network elements.¹¹⁸ Congress recognized competing providers' need for collocation in section 251(c)(6) of the Act, which requires incumbent LECs to provide "for the physical collocation of equipment

¹¹³ *Id.* at 15930, 15931, 15934, ¶¶ 863, 865-66, 871; *see, e.g.*, AT&T Reply Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 11.

¹¹⁴ *Local Competition Order*, 11 FCC Rcd at 15934, ¶ 873.

¹¹⁵ In the Order, we do not decide whether or to what extent advanced services are "exchange access" services rather than local exchange services. *See supra* ¶ 40.

¹¹⁶ *See Report to Congress on Universal Service*, at ¶¶ 73-82 (concluding that Internet service providers are not telecommunications carriers).

¹¹⁷ *See infra* ¶ 85.

¹¹⁸ *See, e.g.*, Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 13; DSL Access Telecommunications Alliance Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 7-8.

necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier, except that the carrier may provide for virtual collocation if the local exchange carrier demonstrates to the State commission that physical collocation is not practical for technical reasons or because of space limitations."¹¹⁹ In the *Local Competition Order*, the Commission implemented specific minimum requirements to implement the collocation requirements of section 251(c)(6).¹²⁰ The Commission adopted rules for, among other things, space allocation and exhaustion, types of equipment that could be collocated, and LEC premises where parties could collocate equipment.¹²¹

63. ALTS asserts that excessive rates and unreasonably burdensome terms and conditions for collocation are blocking competitive entry into data service markets.¹²² As a result, ALTS requests that we initiate proceedings to help ensure implementation of section 251 and 252 of the Act with respect to deployment of advanced services. Among other requests, ALTS asks us to exercise our authority under section 251(c)(6) of the Act and establish additional rules governing collocation arrangements.¹²³

b. Discussion

64. We conclude that the availability of cost efficient collocation arrangements is essential for the deployment of advanced services by facilities-based competing providers. Given incumbent LECs' statutory duty to provide physical collocation on just, reasonable, and nondiscriminatory rates, terms, and conditions,¹²⁴ we believe that incumbent LECs have a statutory obligation to offer cost efficient and flexible collocation arrangements. In addition, we expect that incumbent LECs will fulfill their statutory collocation duty by taking steps to offer collocation arrangements that permit new entrants to provide advanced services using equipment that the new entrant provides.¹²⁵ Such steps include offering collocation to competing providers in a manner that reduces unnecessary costs and delays for the competing providers and that

¹¹⁹ 47 U.S.C. § 251(c)(6).

¹²⁰ *Local Competition Order*, 11 FCC Rcd at 15782-15811, ¶¶ 555-617.

¹²¹ *Id.*

¹²² ALTS Petition at 2-3; *see also* Intermedia Comments (CC Docket No. 98-78) at 5 (the costs, delays, and restrictions associated with collocation are an impediment to the growth of facilities-based competition in local and advanced services markets).

¹²³ ALTS Petition at 2-3.

¹²⁴ 47 U.S.C. § 251(c)(6).

¹²⁵ Several of the petitioners acknowledge this obligation to allow competitors to collocate the equipment necessary to provide advanced services. *See* SBC Petition at 20-21; U S WEST Comments (CC Docket No. 98-78) at 31-34; Bell Atlantic Reply (CC Docket Nos. 98-11, 98-26, 98-32) at 26-27.

optimizes the amount of space available for collocation. We conclude that measures that optimize the available collocation space and that reduce costs and delays for competing providers are consistent with an incumbent LEC's obligation under both the statute and our rules. In addition, we agree with ALTS that we should build upon our current physical and virtual collocation requirements adopted in the *Expanded Interconnection*¹²⁶ and *Local Competition*¹²⁷ proceedings to ensure that our rules promote, to the greatest extent possible, the rapid deployment of advanced telecommunications capability to all Americans. We, therefore, propose specific additional physical and virtual collocation requirements in the NPRM below.¹²⁸

B. Forbearance and LATA Boundary Modifications

1. Background

65. As discussed above, sections 251(c)(3) and (4) require incumbent LECs to provide nondiscriminatory access to unbundled network elements and to offer for resale, at wholesale rates, any telecommunications service the carrier provides at retail.¹²⁹ Section 271(b)(1) provides that a BOC or BOC affiliate "may provide interLATA services originating in any of its in-region States" only "if the Commission approves the application of such company for such State under [section 271(d)(3)]."¹³⁰ Under section 271(d)(3), the Commission may grant a BOC authorization

¹²⁶ *Expanded Interconnection with Local Telephone Company Facilities*, First Report and Order, 7 FCC Rcd 7369 (1992) (*Special Access Order*), *vacated in part and remanded, Bell Atlantic Telephone Cos. v. FCC*, 24 F.3d 1441 (D.C. Cir. 1994) (*Bell Atlantic v. FCC*); First Reconsideration, 8 FCC Rcd 127 (1993); *vacated in part and remanded, Bell Atlantic v. FCC*, 24 F.3d 1441; Second Reconsideration, 8 FCC Rcd 7341 (1993); Second Report and Order, 8 FCC Rcd 7374 (1993) (*Switched Transport Order*), *vacated in part and remanded, Bell Atlantic v. FCC*, 24 F.3d 1441; Remand Order, 9 FCC Rcd 5154 (1994) (*Virtual Collocation Order*), *remanded, Pacific Bell v. FCC*, 81 F.3d 1147 (D.C. Cir. 1996), *further recon. pending* (collectively referred to as *Expanded Interconnection*).

¹²⁷ *Local Competition Order*, 11 FCC Rcd at 15782-15811, ¶¶ 555-617.

¹²⁸ *See infra* ¶¶ 118-150.

¹²⁹ *See* 47 U.S.C. §§ 251(c)(3), (4).

¹³⁰ 47 U.S.C. § 271(b)(1). Section 3(25) of that Act defines local access and transport area (LATA) as:

[A] contiguous geographic area --

(A) established before the date of enactment of the Telecommunications Act of 1996 by a Bell operating company such that no exchange area includes points within more than 1 metropolitan statistical area, consolidated metropolitan statistical area, or State, except as expressly permitted under the AT&T Consent Decree; or

(B) established or modified by a Bell operating company after such date of enactment and approved by the Commission.

47 U.S.C. § 153(25).

to originate in-region, interLATA services only if it finds that the BOC has met the competitive checklist set forth in section 271(c)(2)(B) and other statutory requirements.¹³¹

66. Section 706(a) of the 1996 Act instructs the Commission and each state commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, *regulatory forbearance*, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."¹³²

67. Section 10 of the Communications Act requires the Commission to forbear from applying any regulation or any provision of the Communications Act to telecommunications carriers or telecommunications services, or classes thereof, if the Commission determines that certain conditions are satisfied.¹³³ Section 10(d) specifies, however, that "[e]xcept as provided in section 251(f), the Commission may not forbear from applying the requirements of section 251(c) or 271 under [section 10(a)] until it determines that those requirements have been fully implemented."¹³⁴

68. In their petitions, Ameritech, U S WEST, Bell Atlantic, and SBC seek regulatory relief from the application of section 251 and/or section 271 through Commission forbearance from applying those sections or through LATA boundary changes.¹³⁵ Recognizing that the Commission may not forbear from application of sections 251(c) and 271 under section 10(a)

¹³¹ 47 U.S.C. § 271(d)(3).

¹³² 47 U.S.C. § 157 note (emphasis added).

¹³³ 47 U.S.C. § 160.

¹³⁴ 47 U.S.C. § 160(d).

¹³⁵ We note that each petitioner seeks slightly different relief. Ameritech requests that the Commission provide section 271 relief either by exercising forbearance authority with respect to advanced data services or by establishing a single, global "data LATA" for packet switched services. *See* Ameritech Petition at 2-3 & 12-14. Ameritech notes that if the Commission grants section 271 relief through forbearance, it should likewise forbear from applying section 272 requirements. *Id.* at 3 n.4. Bell Atlantic seeks regulatory relief from the requirements of section 271 through, among other things, forbearance pursuant to section 706, and relief from LATA boundaries, with "one large access area." *See* Bell Atlantic Petition at 10-12. U S WEST and SBC argue that the Commission should forbear from applying the unbundling requirements of section 251(c)(3) and the resale requirements of section 251(c)(4) to non-circuit-switched data services and facilities and to the provision of ADSL, respectively. *See* U S WEST Petition at 44-45; SBC Petition at 25-28. U S WEST requests, in addition, that the Commission permit it to carry data across current LATA boundaries either by lifting the ban on such carriage in section 271 or by redefining LATA boundaries. *See* U S WEST Petition at 42-44. SBC does not seek relief from section 271, either through forbearance or modification of LATA boundaries. SBC, however, requests forbearance from dominant carrier regulation for provision of ADSL as well as from the obligations of section 252(i). *See* SBC Petition at 28-34.

until the requirements in those sections have been fully implemented, petitioners seek forbearance pursuant to section 706(a). Petitioners contend that section 706(a) constitutes an independent grant of forbearance authority that encompasses the ability to forbear from sections 251(c) and 271. Ameritech, Bell Atlantic, and U S WEST seek regulatory relief not only to provide xDSL-based services to end users, but also to obtain freedom to become Internet backbone providers.¹³⁶ Ameritech and U S WEST, notwithstanding their request here for LATA boundary changes, argue that this relief would not affect their compliance with section 271 for voice services.¹³⁷

2. Discussion

a. Forbearance

69. After reviewing the language of section 706(a), its legislative history, the broader statutory scheme, and Congress' policy objectives, we agree with numerous commenters that section 706(a) does not constitute an independent grant of forbearance authority or of authority to employ other regulating methods.¹³⁸ Rather, we conclude that section 706(a) directs the Commission to use the authority granted in other provisions, including the forbearance authority under section 10(a), to encourage the deployment of advanced services.

¹³⁶ See Ameritech Petition at 9 (stating that section 271 bars Ameritech from providing Internet backbone services); Bell Atlantic Petition at 4 (stating that Commission relief "would enable Bell Atlantic to proceed with current plans to build a regional backbone network"); U S WEST Petition at 42 (urging that the Commission "carry out its mandate [under section 706] by allowing U S WEST to enter and compete in th[e] market for [I]nternet backbone services").

¹³⁷ Ameritech argues that its proposal would not undermine the objectives of section 271 and 10(d). Ameritech asserts that it "remains committed to meeting the requirements of section 271 . . . so that it can satisfy its customers' demands for integrated packages that include circuit-switched, voice-grade, long distance services." Ameritech Reply Comments (CC Docket No. 98-32) at 10. U S WEST asserts that the LATA boundary relief proposed by Ameritech would not affect LATA boundaries and associated restrictions applicable to two-way voice telephone service. U S WEST asserts further that it "has made a firm commitment that it will not use . . . relief [for the provision of advanced data services] to evade restrictions on the provision of voice services." U S WEST Reply Comments (CC Docket No. 98-26) at 21-22.

¹³⁸ See, e.g., ACSI Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 5; AT&T Comments (CC Docket No. 98-11) at 5-6; Cablevision Lightpath Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 8; CIX Comments (CC Docket No. 98-11) at 24-26; CompTel Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 10-12; CPI Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 21; Electric Lightwave Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 31; Excel Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 4-5; Focal Communications Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 5-6; ITAA Comments (CC Docket No. 98-11) at 5; LCI Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 18; Level 3 Communications Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 8; MCI Comments (CC Docket No. 98-32) at 24-25; TRA Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 5-6; WorldCom Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 10-11, 28-29; XCOM Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 4-5, 11-14; NTIA July 17 *Ex Parte* at 5-7. *But see, e.g.*, Ameritech Petition at 14; Bell Atlantic Petition at 10-11; SBC Petition at 5-6; U S WEST Petition at 37-40.

70. To determine whether section 706(a) constitutes an independent grant of forbearance authority, we look first to the text of the statute. We recognize that the language of section 706 directs the Commission to encourage the deployment of advanced services "by utilizing . . . regulatory forbearance" ¹³⁹ It is not clear from the text of section 706(a), however, whether Congress intended that provision to constitute an independent grant of forbearance authority, or, alternatively, a directive that the Commission use forbearance authority granted elsewhere, in encouraging the deployment of advanced services. ¹⁴⁰

71. Because the language of section 706(a) does not make clear whether section 706(a) constitutes an independent grant of forbearance authority, we look to the broader statutory scheme, its legislative history, and the underlying policy objectives to resolve the ambiguity. We examine the structure of the 1996 Act as a whole. As the courts have recognized, "[t]he literal language of a provision taken out of context cannot provide conclusive proof of congressional intent, any more than a word can have meaning without context to illuminate its use." ¹⁴¹ Rather, when we are "charged with understanding the relationship between two different provisions within the same statute, we must analyze the language of each to make sense of the whole." ¹⁴²

72. As stated above, section 10(d) expressly forbids the Commission from forbearing from the requirements of sections 251(c) and 271 "until it determines that those requirements have been fully implemented." ¹⁴³ There is no language in section 10 that carves out an exclusion from this prohibition for actions taken pursuant to section 706.

73. If section 706(a) were an independent grant of authority, as the BOCs argue, ¹⁴⁴ then it would allow us to forbear from applying sections 251(c) and 271 regardless of whether either section were fully implemented. Sections 251(c) and 271 are cornerstones of the framework Congress established in the 1996 Act to open local markets to competition. ¹⁴⁵ The central importance of these provisions is reflected in the fact that they are the only two provisions

¹³⁹ 47 U.S.C. § 157 note.

¹⁴⁰ Compare *Chevron v. National Resources Defense Council*, 467 U.S. 837, 842-43 (1984).

¹⁴¹ See *Bell Atlantic Tel. Cos. v. FCC*, 131 F.3d 1044, 1047 (D.C. Cir. 1997) (construing section 272(e)(4) of the Act).

¹⁴² *Id.*

¹⁴³ 47 U.S.C. § 157 note.

¹⁴⁴ See, e.g., Bell Atlantic Reply (CC Docket Nos. 98-11, 98-26, 98-32) at 4-9; SBC Reply (RM 9244) at 1-9; U S WEST Reply (CC Docket No. 98-26) at 8.

¹⁴⁵ See, e.g., ALTS Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 1; MCI Comments (CC Docket No. 98-32) at 13; TRA Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 7; Level 3 Communications Reply (CC Docket Nos. 98-11, 98-26, 98-32) at 5; NTIA July 17 *Ex Parte* at 6.

that Congress carved out in limiting the Commission's otherwise broad forbearance authority under section 10. We find it unreasonable to conclude that Congress would have intended that section 706 allow the Commission to eviscerate those forbearance exclusions after having expressly singled out sections 251(c) and 271 for different treatment in section 10.¹⁴⁶

74. We are not persuaded by Bell Atlantic's argument that a conclusion that section 706(a) confers no independent authority would make that section redundant.¹⁴⁷ On the contrary, we conclude that section 706(a) gives this Commission an affirmative obligation to encourage the deployment of advanced services, relying on our authority established elsewhere in the Act. Our actions and proposals in this Order and NPRM make clear that this obligation has substance.

75. Furthermore, we find nothing in the legislative history of section 706 to indicate that Congress gave us independent authority in section 706(a) to forbear from provisions of the Act. Section 706 was adopted contemporaneously with the forbearance authority in section 10, with section 706 contained in section 304 of the Senate version of the Communications Act of 1996, and the forbearance authority that was later included in section 10 contained in section 303 of that bill.¹⁴⁸ Thus, when enacting section 706, Congress was well aware of the explicit exclusions of our forbearance authority in section 10(d). Congress presumably would have stated explicitly that those exclusions would not apply to forbearance under section 706 had it so intended. We are not persuaded by Ameritech's argument that the statement in the Senate Commerce Committee's Report that section 706 is intended as a "fail-safe" indicates that Congress provided independent forbearance authority in section 706(a).¹⁴⁹ The Senate Commerce Committee's Report makes clear that section 706 "ensures that advanced telecommunications capability is promptly deployed by requiring the [Commission] to initiate and complete regular inquiries," and then take immediate action if it determines that such capability is not being deployed to all Americans.¹⁵⁰ The Report does not clarify, however, whether section 706 is an

¹⁴⁶ See, e.g., ALTS Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 3 (arguing that "[t]he only way the Telecommunications Act can be interpreted as a whole is [to] make the meaning of 'forbearance' in section 706 consistent with the . . . limitation of the same term as used in section 10"); MCI Comments (CC Docket No. 98-11) at 21-22 (stating that it is hard to imagine that Congress intended section 706 to override the specific limitations on forbearance in section 10).

¹⁴⁷ Bell Atlantic Reply (CC Docket Nos. 98-11, 98-26, 98-32) at 5.

¹⁴⁸ 141 Cong. Rec. H9954, H9970-71 (Oct. 12, 1995) (text of S. 652 as read in Senate); S. 652, 104th Cong., 1st Sess. 150-53 (1995) (S. 652 as passed by the Senate).

¹⁴⁹ Ameritech Reply (CC Docket No. 98-32) at 4, citing S. Rep. No. 104-23, 104th Cong., 1st Sess. 115 (1995) (1995 Senate Report).

¹⁵⁰ 1995 Senate Report, *supra*, at 114.

independent grant of regulatory authority or directs the Commission to use regulatory measures granted in other provisions of the Act.¹⁵¹

76. Moreover, as a matter of policy, we believe that interpreting section 706, not as an independent grant of authority, but rather, as a direction to the Commission to use the forbearance authority granted elsewhere in the Act, will further Congress' objective of opening all telecommunications markets to competition, including the market for advanced services.¹⁵² As discussed above, because of the central importance of the requirements in sections 251(c) and 271 to opening local markets to competition, we consider these sections to be cornerstones of the framework Congress established in the 1996 Act. We find that this conclusion that section 706 does not provide the statutory authority to forbear from sections 251(c) and 271 will better promote Congress' objectives in the Act.

77. For the foregoing reasons, we conclude that, in light of the statutory language, the framework of the 1996 Act, its legislative history, and Congress' policy objectives, the most logical statutory interpretation is that section 706 does not constitute an independent grant of authority. Rather, the better interpretation of section 706 is that it directs us to use, among other authority, our forbearance authority under section 10(a) to encourage the deployment of advanced services. Under section 10(d), we may not use that authority to forbear from applying the requirements of section 251(c) and 271 prior to their full implementation. Petitioners do not suggest that either section 251(c) or section 271 has been fully implemented, and we have no record on which to determine that either has been fully implemented. We, therefore, deny the BOC requests that we forbear from applying the requirements of sections 251(c) and 271. We seek comment in the NPRM below on whether there are avenues other than forbearance that might allow us to lessen the obligations of these sections in appropriate circumstances.¹⁵³

78. Ameritech also requests forbearance pursuant to section 706 from application of section 272's requirements if we grant its request to forbear from applying section 271's

¹⁵¹ *Id.* at 113-15. Bell Atlantic also points to a floor statement that it claims supports its view that section 706 grants independent forbearance authority. Bell Atlantic Reply (CC Docket Nos. 98-11, 98-26, 98-32) at 7 (*citing* 141 Cong. Rec. S699-90 (daily ed. Feb. 1, 1996)). As with the statement in the Senate Commerce Committee Report, this statement does not indicate whether section 706(a) gives the Commission independent forbearance authority or whether it directs the Commission to use regulatory measures granted elsewhere in the Act to achieve the objectives stated in section 706. Even if that statement were interpreted to indicate that section 706 gives the Commission independent forbearance authority, we conclude that statements of an individual member of Congress does not overcome the other evidence discussed in this section that indicates Congress' intention that the Commission not forbear from sections 251(c) and 271 until those sections are fully implemented. *See Bath Iron Works Corp. v. Office of Workers Compensation Programs*, 506 U.S. 153, 166 (1993); *Pappas v. Buck Consultants, Inc.*, 923 F.2d 531, 536-37 (7th Cir. 1991).

¹⁵² *See Joint Explanatory Statement, supra* at 1, 113.

¹⁵³ *See infra* ¶¶ 178-196.

requirements. Because we deny that request for section 271 forbearance, we also deny Ameritech's request for section 272 forbearance.

79. In addition, SBC requests forbearance, under section 10: (1) from the dominant treatment of ADSL service to the extent that treatment results in the imposition of tariff filing requirements and other obligations under the Act and under parts 61 and 69 of the Commission's rules; and (2) from the obligations of section 252(i).¹⁵⁴ Section 10(a) requires us to forbear from the application of a statutory provision or regulation if we determine that specific criteria are met.¹⁵⁵ We conclude, on the record before us, that SBC has not demonstrated that the relief it requests pursuant to section 10 meets these criteria. In particular, to the extent that advanced services are offered by an incumbent LEC, we find, on the record before us, that it is consistent with the public interest to subject such incumbents to full incumbent LEC regulation.¹⁵⁶ We therefore deny SBC's requests for forbearance under section 10. We note, however, that, in the NPRM below, we address the regulatory status of an advanced services affiliate that competes without any unfair advantages derived from its affiliation with the incumbent. In particular, we tentatively conclude below that such an affiliate, to the extent it provides interstate exchange access services, should, under existing Commission precedent, be presumed to be nondominant and should not be required to file tariffs for its provision of any interstate services that are exchange access.¹⁵⁷

b. LATA Boundary Modifications

80. As an alternative to forbearance from enforcing section 271, Ameritech, Bell Atlantic and U S WEST request that the Commission permit them to change LATA boundaries pursuant to section 3(25) of the Communications Act in order to create a large-scale "LATA" for packet-switched services.¹⁵⁸ We decline to grant petitioners' requests for large-scale changes in LATA boundaries.

81. Although section 3(25)(B) of the Act permits a BOC to modify LATA boundaries upon Commission approval, we conclude that petitioners' requests for large-scale changes in LATA boundaries amount to more than requests for "modified" LATAs as that term is used in

¹⁵⁴ SBC Petition at 5-6.

¹⁵⁵ 47 U.S.C. § 160(a).

¹⁵⁶ 47 U.S.C. § 160(a)(3); *see generally* AT&T Comments (CC Docket No. 98-11) at 17; CIEA Comments (CC Docket No. 98-11) at 17-18; Hyperion Comments (CC Docket No. 98-11) at 10; Sprint Comments (CC Docket No. 98-11) at 5.

¹⁵⁷ *See infra* ¶ 48.

¹⁵⁸ 47 U.S.C. § 3(25). *See supra* n.135, for a description of the individual petitioners' requests.

section 3(25)(B).¹⁵⁹ In *MCI v. AT&T*,¹⁶⁰ the Supreme Court held that the Commission's authority to "modify" portions of the Communications Act means "moderate change" and not "basic and fundamental changes in the scheme created by [the section at issue]"¹⁶¹ We conclude that such large-scale changes in LATA boundaries for packet-switched services as proposed by petitioners would effectively eliminate LATA boundaries for such services.¹⁶²

82. Such far-reaching and unprecedented relief could effectively eviscerate section 271 and circumvent the procompetitive incentives for opening the local market to competition that Congress sought to achieve in enacting section 271 of the Act.¹⁶³ We conclude, therefore, that the requests for large-scale changes in LATA boundaries, such as Ameritech's request for a global, "data LATA," are functionally no different than petitioners' requests that we forbear from applying section 271 to their provision of these services. It would exalt form over substance if we were to grant the requested large-scale changes in LATA boundaries. In the NPRM below, we seek comment on whether the Commission should, in certain circumstances, modify LATA boundaries to provide targeted relief.¹⁶⁴

VI. NOTICE OF PROPOSED RULEMAKING

¹⁵⁹ 47 U.S.C. § 3(25)(B); *see, e.g.*, AT&T Comments (CC Docket No. 98-11) at 12; ITA Comments (CC Docket No. 98-11) at 6-7.

¹⁶⁰ *MCI Telecommunications Corp. v. AT&T*, 512 U.S. 218 (1994) (*MCI v. AT&T*).

¹⁶¹ *Id.* at 225, 228 (holding that the Commission's decision to forbear from statutory tariff filing requirements exceeded the Commission's authority to modify section 203(a) of the 1934 Act); *see also* AT&T Comments (CC Docket No. 98-11) at 11-12; CIEA Comments (CC Docket No. 98-11) at 26-27; ITAA Comments (CC Docket No. 98-11) at 6-7. Section 3(25)(B) appears to have been crafted to give the Commission the same authority that the district court exercised in adjusting LATA boundaries under the AT&T Consent Decree. *See, e.g., Western Electric Co. v. United States*, 578 F. Supp. 643 (D.C.C. 1983) (modifying LATA boundaries for mobile radio services in selected areas).

¹⁶² The United States Court of Appeals for the District of Columbia Circuit has held that the ability of the Commission to modify a requirement does not permit the Commission to adopt a "wholesale abandonment or elimination of a requirement." *MCI Telecommunications v. FCC*, 765 F.2d 1186, 1192 (D.C. Cir. 1985); *see also AT&T v. FCC*, 978 F.2d 727, 736 (D.C. Cir. 1992), *cert. denied* 509 U.S. 913 (1993); ITAA Comments (CC Docket No. 98-11) at 7; MCI Comments (CC Docket No. 98-11) at 28-29; TCG Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 5-9 (changing LATA boundaries as the BOCs propose would thwart Congress' objectives in section 271 and therefore are beyond the Commission's authority); WorldCom Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 29 (section 3(25) at most allows modification, not elimination, of existing LATA boundaries).

¹⁶³ *See, e.g.*, Cablevision Lightpath Comments (CC Docket No. 98-11) at 9; CIEA Comments (CC Docket No. 98-32) at 24-25; CTA Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 14-15; LCI Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 19-20; Level 3 Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 8; MCI Comments (CC Docket No. 98-11) at 29-30; Transwire Comments (CC Docket No. 98-32) at 16; WorldCom Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 29.

¹⁶⁴ *See infra* ¶¶ 192-196.

A. Introduction

83. In this NPRM, we propose an optional alternative pathway for incumbent LECs that would allow separate affiliates to provide advanced services free from incumbent LEC regulation. In particular, if an incumbent LEC chooses to offer advanced services through an affiliate that is truly separate from the incumbent, that affiliate would not be deemed an incumbent LEC and therefore would not be subject to incumbent LEC regulation, including the obligations under section 251(c). On the other hand, if the advanced services affiliate derives an unfair advantage from its relationship with the incumbent, that affiliate should be viewed as stepping into the shoes of the incumbent LEC and would be subject to all the requirements that Congress established for incumbent LECs. We propose in this NPRM specific structural separation and nondiscrimination requirements that we would require be in place in order for an affiliate to be deemed a non-incumbent LEC, and thus not subject to section 251(c). We also offer guidance on various factors that the Commission should consider in determining when an advanced services affiliate would be an "assign" of the incumbent LEC, and, therefore, subject to the obligations of section 251(c).

84. In this NPRM, we also propose additional rule changes that would apply whether or not incumbent LECs choose to establish a separate affiliate to provide advanced services.¹⁶⁵ We propose rules to ensure that all entities seeking to offer advanced services have adequate access to collocation and loops, which is critical to promote competition in the marketplace for advanced services. We then seek comment on ways to modify the section 251(c) unbundling requirements, once companies are in compliance with the rule changes we propose regarding collocation and access to loops. Finally, we seek comment on measures that would provide BOCs with targeted interLATA relief to ensure that all consumers, even those in rural areas, are able to reap the benefits of advanced telecommunications capability.

B. Provision of Advanced Services through a Separate Affiliate

85. A number of parties have raised the question of whether incumbent LECs may provide advanced services through separate affiliates that would not be subject to incumbent LEC regulation. For example, APT suggests in its petition that the Commission explore the possibility of requiring incumbent LECs to form separate subsidiaries, which would not be subject to rate regulation because of their lack of market power.¹⁶⁶ Ameritech asks that the Commission clarify that a BOC "data affiliate" that complies with the separation requirements in the *Competitive*

¹⁶⁵ As noted above, we recognize that the corporate holding company may be the entity that would establish the affiliate, rather than the incumbent LEC per se. See *supra* n.17.

¹⁶⁶ APT Petition at 17.

Carrier Fifth Report and Order, as modified by the *LEC Classification Order*,¹⁶⁷ should be deemed a non-incumbent LEC, and thus not subject to section 251(c) obligations, and nondominant in its provision of interstate advanced services.¹⁶⁸ SBC has requested that the Commission "confirm that an affiliate of an incumbent LEC that satisfies applicable structural separation requirements is not itself an incumbent LEC for purpose of section 251(c)."¹⁶⁹ Rhythms Net suggests that incumbent LEC separate affiliates can be "a meaningful tool in assuring parity of treatment if the separate subsidiary is required to be a [competitive LEC] that functions like any other [competitive LEC] . . ."¹⁷⁰ The Commission also explored the separate affiliate issue with many industry representatives during an en banc hearing on bandwidth issues.¹⁷¹

86. We are committed to ensuring that an optional alternative pathway is available for incumbent LECs that are willing to offer advanced services on the same footing as any of their competitors. As described more fully below, we believe that, if advanced services are offered by an affiliate that is truly separate from the incumbent LEC (an "advanced services affiliate"), that affiliate should not be deemed an incumbent LEC and, therefore, should not be subject to the incumbent LEC regime established by Congress in section 251(c). In addition, we tentatively conclude below that such an advanced services affiliate, to the extent it provides interstate exchange access services, should, under existing Commission precedent, be presumed to be nondominant (and, therefore, not be subject to price cap regulation or rate of return regulation for its provision of such services). We also tentatively conclude below that such an affiliate, as a non-incumbent, also should not be required to file tariffs for its provision of any interstate services that are exchange access. We emphasize that we are not proposing that incumbent LECs be required to establish affiliates to provide advanced services. Any incumbent LEC is free to provide

¹⁶⁷ *Competitive Carrier Fifth Report and Order*, 98 F.C.C. 2d 1191; *Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area and Policy and Rules Concerning the Interstate, Interexchange Market Place*, CC Docket No. 96-149, Second Report and Order, CC Docket No. 96-61, Third Report and Order, 12 FCC Rcd 15756, 15802 (*LEC Classification Order*), Order on Reconsideration, 12 FCC Rcd 8730 (1997); Order, 13 FCC Rcd 6427 (Comm. Car. Bur. 1998), *further recon. pending*. Hereafter, we will refer to these requirements as the *Competitive Carrier Fifth Report and Order* requirements.

¹⁶⁸ Ameritech Petition at 22-27.

¹⁶⁹ See SBC Comments (CC Docket No. 98-11, 98-26, 98-32) at 4.

¹⁷⁰ Letter from Jeffrey Blumenfeld, Rhythms Net, to Kathryn C. Brown, Chief, Common Carrier Bureau, Federal Communications Commission, CC Docket Nos. 98-11, 98-26, 98-32, 98-91, at 1 (filed July 24, 1998) (Rhythms Net July 24 *Ex Parte*).

¹⁷¹ See, e.g., Statement of Chuck McMinn, Chairman of the Board, Covad Communications Company, before the Federal Communications Commission, En Banc Hearing on Bandwidth, July 9, 1998, at 2 (stating that, "if [incumbent LECs] wish to provide DSL services in-region, they should be required to provide these services through a separate entity . . . [that] would have to obtain the inputs essential to provide DSL service in exactly the same manner as Covad or any other competitor.").

advanced services on an integrated basis, but, in those circumstances, is subject to section 251(c) requirements. Simply put, each incumbent LEC seeking to provide advanced services must make a business decision as to whether it wishes to provide such services free of section 251(c) requirements.

87. In this NPRM we lay out a framework that will guide incumbent LECs that choose to pursue this alternative. The proposals in this NPRM are based on the underlying assumption that, to be free of incumbent LEC regulation, an advanced services affiliate must function just like any other competitive LEC and not derive unfair advantages from the incumbent LEC.

88. We recognize that many states have significant practical experience in dealing with LEC affiliates in a variety of contexts. We therefore welcome input from the states on each of the issues raised below regarding provision of advanced services through a separate affiliate.

1. Background

89. The obligations set out in section 251(c) of the Act are imposed only on incumbent LECs.¹⁷² In the *Non-Accounting Safeguards Order*, the Commission concluded that a BOC affiliate that satisfies appropriate structural separation requirements is not deemed an incumbent LEC for purposes of section 251 merely because it is engaged in local exchange activities.¹⁷³ Consistent with the reasoning in the *Non-Accounting Safeguards Order*, a determination as to whether a carrier is an incumbent LEC is not based on the nature of the service the carrier provides. Rather, in order to be deemed an incumbent LEC, a carrier must meet the definition in section 251(h).

90. Section 251(h)(1), in turn, defines an incumbent LEC as either a member of NECA as of the date of the enactment of the 1996 Act, or a "successor or assign" of such a member.¹⁷⁴ When applying the definition in section 251(h)(1)(B)(i) to separate affiliates in the *Non-Accounting Safeguards Order*, the Commission concluded that "[n]o BOC affiliate was a member of NECA when the 1996 Act was enacted."¹⁷⁵ The Commission determined that an affiliate can, however, be a "successor or assign" of a BOC. The Commission concluded that, if a BOC transfers to its affiliate ownership of any network elements that must be provided on an unbundled basis pursuant to section 251(c)(3), the affiliate would be deemed an assign of the BOC under section 3(4) of the Act with respect to those network elements.¹⁷⁶

¹⁷² 47 U.S.C. § 251(c).

¹⁷³ See *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22055, ¶ 312.

¹⁷⁴ 47 U.S.C. § 251(h)(1).

¹⁷⁵ *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22055-22056, ¶ 312.

¹⁷⁶ See *id.*, 11 FCC Rcd at 22054, ¶ 309; see also 47 C.F.R. § 53.207.

91. In addition, we note that the Commission, under section 251(h)(2), may, by rule, treat as an incumbent a LEC (or a class or category of LECs) that occupies a position in the market for telephone exchange service within an area that is comparable to the position occupied by the incumbent LEC, and such carrier has substantially replaced an incumbent LEC.¹⁷⁷ The Commission stated in the *Local Competition Order* that it "will not impose incumbent LEC obligations on non-incumbent LECs absent a clear and convincing showing that the LEC occupies a position in the telephone exchange market comparable to the position held by an incumbent LEC, has substantially replaced an incumbent LEC, and that such treatment would serve the public interest, convenience, and necessity and the purposes of section 251."¹⁷⁸ In the *Non-Accounting Safeguards Order*, the Commission determined that a BOC affiliate is not "comparable" to an incumbent LEC under section 251(h)(2) merely because it is engaged in local exchange activities.¹⁷⁹

2. Advanced Services Affiliates

92. Building upon the reasoning in this existing precedent, we believe that an advanced services affiliate of an incumbent LEC that (1) satisfies adequate structural separation requirements (*i.e.*, is "truly" separate); and (2) acquires, on its own, facilities used to provide advanced services (or leases such facilities from an unaffiliated entity) is generally not an incumbent LEC, and, therefore, is not subject to section 251(c) obligations with respect to those facilities. We also note that, although we believe an advanced services affiliate that is structured in accordance with rules we adopt in this proceeding would not be an incumbent LEC, the affiliate would remain subject to the general duties of telecommunications carriers in section 251(a)¹⁸⁰ and the obligations of all local exchange carriers in section 251(b).¹⁸¹ Thus, for example, under

¹⁷⁷ 47 U.S.C. § 251(h)(2); *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22060, ¶ 321.

¹⁷⁸ *Local Competition Order*, 11 FCC Rcd at 16110, ¶ 1248, *citing* 47 U.S.C. § 251(h)(2). The Commission recently adopted a rule treating Guam Telephone Authority (GTA) as an incumbent LEC for purposes of section 251. *See Treatment of Guam Telephone Authority and Similarly Situated Carriers as Incumbent Local Exchange Carriers under Section 251(h)(2) of the Communications Act*, CC Docket No. 97-134, Report and Order, FCC 98-163 (rel. Jul. 20, 1998). The Competitive Telecommunications Association recently filed a petition asking the Commission to issue a declaratory ruling determining that certain affiliates of incumbent LECs should be treated as "successors or assigns" of the incumbent LECs. CompTel asks, in the alternative, that the Commission initiate a rulemaking under section 251(h)(2). *See Commission Seeks Comment on Petition Regarding Regulatory Treatment of Affiliates of ILECs*, CC Docket No. 98-39, Public Notice, 13 FCC Rcd 6669 (1998). We do not address CompTel's petition in this proceeding, although we seek comment on certain issues raised by CompTel as they relate to the provision of advanced services by an affiliate.

¹⁷⁹ *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22055-22056, ¶ 312.

¹⁸⁰ 47 U.S.C. § 251(a).

¹⁸¹ Section 251(b) imposes on each local exchange carrier the following duties:

OBLIGATIONS OF ALL LOCAL EXCHANGE CARRIERS.--Each local exchange carrier has

section 251(a)(1), such an affiliate must "interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers."¹⁸²

93. In describing what we believe is an alternative pathway by which a truly separate affiliate of an incumbent LEC may provide advanced services free from the obligations of section 251(c), we emphasize that we are not proposing to forbear from section 251(c) requirements. Rather, we are setting forth proposals on the circumstances under which an affiliate is not deemed an incumbent LEC in the first place.

94. Certain competitive LECs argue that, regardless of how a separate affiliate is structured, new entrants should be able to obtain unbundled access to all such facilities used by the affiliate to provide advanced services.¹⁸³ We believe that such an interpretation violates section 251 of the Act. Under section 251(c), obligations to unbundle and to offer resale at wholesale rates apply only to incumbent LECs, as defined in section 251(h). Accordingly, to the extent that an entity is not an "incumbent LEC" within the meaning of section 251(h), that entity will not be subject to the obligations, under section 251(c), to unbundle and to offer resale at wholesale rates.¹⁸⁴ We believe that it would be contrary to congressional intent to impose these obligations under section 251(c) upon entities that do not fall within the definition of an incumbent LEC. We seek comment on this statutory analysis and on our belief that a truly separate affiliate of an incumbent LEC may provide advanced services free from the obligations of section 251(c).

the following duties: (1) RESALE.--The duty not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of its telecommunications services. (2) NUMBER PORTABILITY.--The duty to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission. (3) DIALING PARITY.--The duty to provide dialing parity to competing providers of telephone exchange service and telephone toll service, and the duty to permit all such providers to have nondiscriminatory access to telephone numbers, operator services, directory assistance, and directory listing, with no unreasonable dialing delays. (4) ACCESS TO RIGHTS-OF-WAY.--The duty to afford access to the poles, ducts, conduits, and rights-of-way of such carrier to competing providers of telecommunications services on rates, terms, and conditions that are consistent with section 224. (5) RECIPROCAL COMPENSATION.--The duty to establish reciprocal compensation arrangements for the transport and termination of telecommunications.

47 U.S.C. § 251 (b).

¹⁸² 47 U.S.C. § 251(a)(1). Moreover, we note that in the *Local Competition Order*, the Commission stated that "unlike section 251(c), which applies to incumbent LECs, section 251(a) interconnection applies to all telecommunications carriers including those with no market power." *Local Competition Order*, 11 FCC Rcd at 15991, ¶ 997.

¹⁸³ See, e.g., LCI Comments (CC Docket No. 98-78) at 3-4.

¹⁸⁴ See *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22055, ¶ 312.

a. Circumstances Under Which an Advanced Services Affiliate Would Not Be an Incumbent LEC

95. Separation Requirements for Non-Incumbent LEC Status. We now explore the circumstances under which an advanced services affiliate would not qualify as an "incumbent LEC" under the definition set forth by Congress in section 251(h), and thus would not be subject to section 251(c) obligations. In particular, we explore what structural separation requirements for advanced services affiliates are sufficient for those affiliates to be deemed non-incumbent LECs.

96. We believe that, if an incumbent LEC wishes to establish an advanced services affiliate that would not be deemed an incumbent LEC, it should comply with the following structural separation and nondiscrimination requirements.

- First, the incumbent must "operate independently" from its affiliate.¹⁸⁵ In particular, the incumbent and affiliate may not jointly own switching facilities or the land and buildings on which such facilities are located.¹⁸⁶ In addition, the incumbent may not perform operating, installation, or maintenance functions for the affiliate.¹⁸⁷
- Second, transactions must be on an arm's length basis, reduced to writing, and made available for public inspection.¹⁸⁸ We propose that the affiliate be required to provide a detailed written description of any asset or service transferred and the terms and conditions of the transaction on the Internet, through the company's home page, within ten days of the transaction.¹⁸⁹ This would provide a readily accessible mechanism for new entrants to ensure they are receiving treatment equivalent to that provided to the incumbent LEC's advanced services affiliate. All transactions between the incumbent and its affiliate also must comply with the affiliate transactions rules, as modified in the *Accounting Safeguards*

¹⁸⁵ See *id.* at 21914, ¶ 15.

¹⁸⁶ *Id.*

¹⁸⁷ See *id.* at 21981, ¶ 158.

¹⁸⁸ See *id.* at 21992, ¶ 181.

¹⁸⁹ See *Implementation of the Telecommunications Act of 1996: Accounting Safeguards Under the Telecommunications Act of 1996*, CC Docket No. 96-150, 11 FCC Rcd 17539, 17593 (1996) (*Accounting Safeguards Order*). We note that below we seek comment on the extent to which certain transfers of assets or services may be made without resulting in the affiliate's being considered an incumbent LEC. See, *infra*, subpart 2(b).

proceeding.¹⁹⁰ We believe that these affiliate transactions rules are, in the context of transfers from incumbent LECs to their advanced services affiliates, sufficient to discourage, and facilitate detection of, improper cost allocations in order to prevent incumbent LECs from imposing the costs of their competitive ventures on telephone ratepayers.

- Third, the incumbent and affiliate must maintain separate books, records, and accounts.
- Fourth, the incumbent and advanced services affiliate must have separate officers, directors, and employees.
- Fifth, the affiliate must not obtain credit under any arrangement that would permit a creditor, upon default, to have recourse to the assets of the incumbent.
- Sixth, the incumbent LEC, in dealing with its advanced services affiliate may not discriminate in favor of its affiliate in the provision of any goods, services, facilities or information or in the establishment of standards.¹⁹¹
- Seventh, an advanced services affiliate must interconnect with the incumbent LEC pursuant to tariff or pursuant to an interconnection agreement, and whatever network elements, facilities, interfaces and systems are provided by the incumbent LEC to the affiliate must also be made available to unaffiliated entities.¹⁹²

We seek comment on our proposal.

97. To the extent commenters disagree with our reasoning, we invite them to propose specific modifications to the framework set forth above, and to describe with particularity why such modifications should be adopted. In particular, commenters should address how any proposed modification addresses concerns that incumbent LECs could improperly discriminate against competing providers, for instance, by using control over key facilities and services, in

¹⁹⁰ See *id.*, 11 FCC Rcd at 17686, ¶ 108.

¹⁹¹ 47 U.S.C. § 272(c)(1).

¹⁹² See Letter from Jim Earl, Covad Communications, to Rebecca Dorch, Office of Engineering Technology, and Marcelino Ford-Livene, Office of Plans and Policy, Federal Communications Commission, CC Docket Nos. 98-11, 98-26, 98-32, 98-78, 98-91 (filed July 20, 1998) (arguing that an incumbent LEC's affiliate providing advanced services must use an existing interconnection agreement rather than one that is unique to the affiliate) (July 20 Covad *Ex Parte*); NTIA July 17 *Ex Parte* at 11 (stating that an incumbent LEC's affiliate providing DSL would have to negotiate an interconnection agreement in order to secure unbundled DSL-compatible loops and collocation space on the same terms and conditions as are made available to other DSL providers).

order to gain a competitive advantage for their advanced services affiliates.¹⁹³ Commenters also should address how any proposed modification addresses concerns about cost misallocation.

98. We seek comment on whether the same separation requirements should apply to all advanced services affiliates for them to be deemed not incumbent LECs, regardless of the size of the associated incumbent LECs. We note, for example, that section 251(f) provides exemptions from section 251(c) obligations for certain rural telephone companies and allows a local exchange carrier with fewer than 2 percent of the Nation's subscriber lines to petition a state Commission for suspension or modification of application of a particular requirement.¹⁹⁴ We also note that, to the extent a BOC is authorized to provide advanced services on an interLATA basis pursuant to section 271, it will be required to offer these services through an affiliate that complies with the requirements of section 272. We seek comment on whether, as a practical matter, a BOC would choose to establish two separate affiliates to provide advanced services -- one to provide such services on an interLATA basis and another to provide such services on an intraLATA basis -- if we were to adopt separation requirements less stringent than those in section 272 for advanced services affiliates.

99. We seek comment on whether any separation and other safeguards should sunset after a certain period of time or change in conditions. For example, with respect to the BOCs, we seek comment on whether the safeguards necessary to be deemed a non-incumbent LEC in the provision of advanced services should sunset at the same time that the statutorily-mandated section 272 requirements sunset with respect to the BOCs' provision of in-region interLATA services.¹⁹⁵ We seek comment on what other periods may be appropriate.

100. Non-Dominant Status. We also tentatively conclude that an advanced services affiliate, to the extent it provides interstate exchange access services,¹⁹⁶ should, under existing

¹⁹³ See, e.g., MCI Comments (CC Docket No. 98-11, 98-26, 98-32) at 39; CIX Comments (CC Docket No. 98-78) at 4-5.

¹⁹⁴ See 47 U.S.C. § 251(f).

¹⁹⁵ Section 272(f)(1) provides that the provisions of section 272 (other than subsection (e)) "shall cease to apply with respect to . . . the interLATA telecommunications services of a Bell operating company 3 years after the date such Bell operating company or any Bell operating company affiliate is authorized to provide interLATA telecommunications services under section 271(d), unless the Commission extends such 3-year period by rule or order." 47 U.S.C. § 272(f)(1).

¹⁹⁶ We conclude in the Order above that advanced services offered by incumbent LECs are "telephone exchange service" or "exchange access." See *supra* ¶ 40. As previously noted, the question of whether, or to what extent, specific xDSL-based services offered by incumbent LECs are "telephone exchange service" as opposed to "exchange access" has been raised in other pending proceedings, and the Commission will continue to address this question on a case-by-case basis. See *supra* ¶ 40 and n.69.

Commission precedent, be presumed to be nondominant.¹⁹⁷ Therefore, such affiliate would not be subject to price cap regulation or rate of return regulation for its provision of such services.¹⁹⁸ We tentatively conclude that such an affiliate, as a non-incumbent, also should not be required to file tariffs for its provision of any interstate services that are exchange access.¹⁹⁹ We seek comment on these tentative conclusions.

101. Miscellaneous Issues. We seek comment on whether an advanced services affiliate should be limited in its ability either to resell telecommunications services offered by the incumbent LEC or to purchase unbundled network elements from the incumbent LEC. We also seek comment on whether a virtual collocation arrangement is more practical or attractive to an incumbent's affiliate than to other competitive LECs, and, therefore, creates an unfair competitive advantage for an advanced services affiliate vis-a-vis other entrants. If so, are there ways to make virtual collocation arrangements more equal?

¹⁹⁷ See 47 C.F.R. §§ 61.3(o), 61.3(u) (defining a dominant carrier as one that possesses market power, and a non-dominant carrier as a carrier not found to be dominant); *Hyperion Telecommunications Inc., Petition Requesting Forbearance, Time Warner Communications Petition for Forbearance, Complete Detariffing for Competitive Access Providers and Competitive Local Exchange Carriers*, CCB/CPD No. 96-3, CCB/CPD No. 96-7, CC Docket No. 97-146, Memorandum Opinion and Order, 12 FCC Rcd 8596, 8608, n.71 (1997) (*Hyperion/Time Warner MO&O*) ("our policy since the *Competitive Carrier Proceeding* has consistently been that a carrier is nondominant unless the Commission makes or has made a finding that it is dominant") and ¶¶ 23-24 (finding no demonstration that non-incumbent LEC providers of interstate exchange access services possess market power); *Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing, End User Common Line Charges*, CC Docket Nos. 96-262, 94-1, 91-213, 95-72, First Report and Order, 12 FCC Rcd 15982, 16140-16141, ¶¶ 360-63 (1997) (determining that non-incumbent LECs should be treated as nondominant in their provision of terminating access); *Local Competition Order*, 11 FCC Rcd at 15981, ¶ 976 (stating that non-incumbent LECs definitionally lack the market power possessed by incumbent LECs).

¹⁹⁸ See *Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended*, CC Docket No. 96-61, Second Report and Order, 11 FCC Rcd 20730, 20746 n.29 (1996), *stayed on other grounds pending review sub nom, MCI Telecommunications Corp. v. FCC*, Case No. 96-1459 (D.C. Cir., Feb. 19, 1997), Order on Reconsideration, 12 FCC Rcd 15014 (1997); *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, CC Docket No. 79-252, First Report and Order, 85 FCC 2d 1, 33-35, ¶¶ 97-101 (1980). See also *Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Second Report and Order, 5 FCC Rcd 6786, 6818-19, ¶¶ 262-65 (1990), Erratum, 5 FCC Rcd 7664 (Com. Car. Bur. 1990); *modified on recon.*, 6 FCC Rcd 2637 (1991); *aff'd sub nom. National Rural Telecom Ass'n v. FCC*, 988 F. 2d 174 (D.C. Cir. 1993). U S WEST, while maintaining that a separate affiliate is not necessary to qualify for nondominant status, agrees with Ameritech that an affiliate complying with the requirements in the *Competitive Carrier Fifth Report and Order* should be classified as nondominant. See U S WEST Comments (CC Docket Nos. 98-11, 98-32) at 8-9. *But see* CompTel Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 16-17 (stating that grant of nondominant status to BOCs providing advanced services is inappropriate because new entrants are dependent upon BOC provisioning of local loops and other essential facilities, providing a powerful vehicle for BOCs to exercise market power in data services).

¹⁹⁹ See *Hyperion/Time Warner MO&O*, 12 FCC Rcd at 8596, ¶ 1 (granting petitions seeking permissive detariffing for provision of interstate exchange access services by providers other than incumbent LECs).

102. We also note that some incumbent LECs have formed their own information services providers. Are advanced services affiliates likely to favor such affiliated information services providers, and, if so, in what ways? We also seek comment on whether competing information services providers (such as, for example, Internet services providers) will have the ability to offer service to customers of the advanced services affiliate.²⁰⁰ Could the advanced services affiliate and the incumbent LEC act in concert to engage in a price squeeze on unaffiliated information service providers? Parties arguing that the incentive and ability for affiliates to favor affiliated information services providers should suggest means by which the Commission could address these concerns.²⁰¹

103. Finally, commenters should compare any anticompetitive concerns they have with the operation of an advanced services affiliate to similar concerns they may have with the offering of such services on an integrated basis by the incumbent.

b. Transfers from an Incumbent LEC to an Advanced Services Affiliate

104. In order not to be subject to the requirements of section 251(c), the advanced services affiliate must not be a successor or assign of the incumbent LEC. A determination as to whether an affiliate is a successor or assign is ultimately fact-based.²⁰² In order to provide clarity and regulatory certainty, we make certain proposals below regarding when we would view an affiliate as a successor or assign. We seek to establish principles to guide the conduct of firms that choose to avail themselves of this pathway. We seek comment on how particular transactions between incumbents and their advanced services affiliates should affect the regulatory status of the affiliates. Commenters should consider whether, in a particular situation, the affiliate would be functioning like any other competitive LEC, or more like an assign of the incumbent.²⁰³

²⁰⁰ See, e.g., Letter from George Vradenburg III, Senior Vice President and General Counsel, America Online, to Kathryn C. Brown, Chief, Common Carrier Bureau, Federal Communications Commission, CC Docket Nos. 98-11, 98-32, 98-78, 98-91, at 3 (filed July 30, 1998) (expressing concern that a data services affiliate that is not a successor or assign "would be free to afford preferential treatment to the affiliated ISP, whose operations could even be integrated into the data services affiliate"); but see *Computer II Final Decision*, 77 FCC 2d at 475, ¶ 231; 47 C.F.R. § 64.702(a).

²⁰¹ See generally, NTIA July 17 *Ex Parte* at 17-19.

²⁰² See, e.g., *Howard Johnson Co. v. Detroit Local Joint Executive Board*, 417 U.S. 249, n.9 (1974) (stating that determinations about successorship must be based on "the facts of each case and the particular legal obligation which is at issue" and that "there is and can be no single definition of 'successor' which is applicable in every legal context.").

²⁰³ See *State of Connecticut, Department of Public Utility Control Investigation of the Southern New England Telephone Company Affiliate Matters Associated with the Implementation of Public Act 94-83*, Decision at 37 (June 25, 1997) (determining that SNET America, Inc., is not an assign of the SNET Telco under section 251(h)(1) merely because the latter planned to transfer to the former rights to provide retail services).

105. Transfers of Facilities. Under existing Commission precedent, if a BOC transfers to an affiliated entity ownership of any network elements that must be provided on an unbundled basis pursuant to section 251(c)(3), such an entity would be deemed to be an assign of the BOC under section 3(4) of the Act with respect to those network elements.²⁰⁴ We seek comment on whether the converse is true: should an affiliate not be deemed an assign of the incumbent LEC if the affiliate acquires facilities on its own, and not by transfer from the incumbent LEC?

106. In the Order above, we state that network elements used to provide advanced services must be unbundled pursuant to section 251(c)(3), subject to considerations of technical feasibility.²⁰⁵ We seek comment on the extent to which incumbent LECs already have purchased facilities used to provide advanced services, including, but not limited to DSLAMs and packet switches. We tentatively conclude that, subject to any *de minimis* exception as discussed below, a wholesale transfer of such facilities would make an affiliate the assign of the incumbent LEC.²⁰⁶

107. Moreover, we tentatively conclude that any transfer of local loops from an incumbent LEC to an advanced services affiliate would make that affiliate an assign of the incumbent LEC and subject to section 251(c) with respect to those loops. We seek comment on these tentative conclusions.

108. We seek comment on whether there should be a *de minimis* exception, under which a limited transfer of equipment would not make an advanced services affiliate an assign of the incumbent LEC. We ask commenters to address with specificity what should be deemed a "*de minimis* transfer of equipment." We tentatively conclude that, if we were to adopt a *de minimis* exception, such an exception should apply only to transfers of facilities used specifically to provide advanced services, such as DSLAMs, packet switches, and transport facilities, and not to other network elements, such as loops. We seek comment on this tentative conclusion. We also seek comment on whether a *de minimis* exception should apply only to transfers of equipment that the incumbent LEC purchased and installed, or whether it should apply only to equipment that the incumbent LEC has ordered but not installed.

109. We seek comment on whether, if we adopt a *de minimis* exception, there should be a time limitation on when such transfers may occur, and if so, whether six months would be an appropriate period. We also seek comment on whether there should be any difference in treatment for transfers of equipment ordered and/or installed prior to the release date of this NPRM as opposed to prior to the effective date of any rule adopted in this proceeding.

²⁰⁴ See *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22054, ¶ 309; 47 C.F.R. § 53.207.

²⁰⁵ See *supra* ¶ 58.

²⁰⁶ We note that, to the extent facilities used to provide advanced services remain in the incumbent LEC, such facilities must be unbundled pursuant to section 251(c)(3) where technically feasible. See *supra* ¶ 58.

110. We also seek comment on whether, if we allow any transfer of ownership of equipment from the incumbent LEC to an advanced services equipment, the affiliate should have the right to leave that equipment in its current location on the incumbent's premises. We tentatively conclude that to the extent there are space limitations on the incumbent LEC's premises, either in the central office or remote terminal, an affiliate may not leave such equipment in its current location. We seek comment on this analysis.

111. We also seek comment on whether, if we allow any transfer of equipment between the incumbent LEC and the advanced services affiliate, such transfers should be exempt from the nondiscrimination requirement we propose above, for a limited time. Without such an exception from the nondiscrimination requirement, the incumbent would be required to offer such equipment on a nondiscriminatory basis to all entities. We seek comment on whether six months would be an appropriate period for such exemption. We tentatively conclude that even if we adopt such an exemption from the nondiscrimination requirement, such transfers should remain subject to the affiliate transactions rules.²⁰⁷ We seek comment on this analysis.

112. In addition, we seek comment on whether there are other circumstances under which incumbent LECs should be permitted to transfer facilities to their affiliates. For example, should the transfer of a packet switch used solely for trial purposes make the advanced services affiliate an assign of the incumbent LEC with respect to that packet switch? Commenters should suggest other situations in which transfers of network elements from an incumbent LEC to its advanced services affiliate should not render the affiliate an incumbent LEC.

113. Other Transfers. Incumbent LECs also may seek to transfer to their advanced services affiliates assets other than network elements. In order to provide clarity and regulatory certainty, we ask commenters to provide examples of what types of transfers an incumbent LEC may wish to make to its advanced services affiliate and whether these transfers should make advanced services affiliates assigns of incumbent LECs. Commenters should consider, among other things, transfers of customer accounts, employees, and brand names.²⁰⁸ In addition, we seek comment on whether, and if so to what extent, transfers of funds from an incumbent LEC's corporate parent to the incumbent LEC's advanced services affiliate should affect the affiliate's regulatory status as a non-incumbent LEC. We also seek comment on whether use by an affiliate of customer proprietary network information (CPNI) gathered by the incumbent LEC is one

²⁰⁷ See 47 C.F.R. § 32.27. In the *Non-Accounting Safeguards Order*, the Commission concluded that, if a BOC seeks to transfer to its section 272 affiliate ownership of a unique facility (such as its official services network), the BOC must ensure that the transfer takes place in a non-discriminatory manner, and must comport with the Commission's affiliate transactions rules. See *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22034, ¶ 266, citing 47 C.F.R. § 32.27(b).

²⁰⁸ See Letter from Russell Frisby, President, Competitive Telecommunications Association, and Heather Burnett Gold, President, Association for Local Telecommunications Services, to William E. Kennard, Chairman, Federal Communications Commission, CC Docket Nos. 98-11, 98-26, 98-32, 98-91, at 3 (filed July 29, 1998) (CompTel/ALTS July 29 *Ex Parte*).

factor among many that might be relevant in making the determination that an affiliate is an assign of the incumbent LEC.²⁰⁹ In addition, we tentatively conclude that, if an incumbent sells or conveys central offices or other real estate in which equipment used to provide telecommunications services is located to an advanced services affiliate, that would make the affiliate an assign of the incumbent. We seek comment on this analysis.

114. We tentatively conclude that, if we adopt a *de minimis* exception for transfers of network elements, we should adopt an analogous exception for any transfers of other assets. We also tentatively conclude that if we adopt any exception from the nondiscrimination requirement for transfers of network elements, we should adopt an analogous exception for transfers of other assets. We seek comment on these tentative conclusions.

115. Other Issues. We also seek comment on whether the network disclosure requirements in section 251(c)(5)²¹⁰ are sufficient to notify competitive LECs who might be using, or planning to use, facilities of the incumbent LEC that those facilities are being transferred to the advanced services affiliate. Parties arguing that the existing network disclosure requirements are not sufficient should suggest alternative disclosure rules, including suggestions regarding how soon prior to the transfer the incumbent LEC must notify competing carriers.

3. State Regulation

116. We note that, to the extent that an advanced services affiliate provides interstate exchange access services, the Commission has clear authority to regulate the separate affiliate's provision of those services.²¹¹ To the extent that an advanced services affiliate provides advanced services on an intrastate basis, we encourage states to treat the affiliate equivalently to any other competing carrier offering advanced services. We believe that, if states regulate advanced

²⁰⁹ The Commission previously has concluded that customers do not expect that carriers will need their approval to use CPNI for offerings within the existing total service arrangement to which they subscribe. *See Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information; Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended*, CC Docket Nos. 96-115, 96-149, Second Report and Order and Further Notice of Proposed Rulemaking, 13 FCC Rcd 8061, 8102-07, ¶¶ 55-59 (1998), *recon. pending; clarified*, Order, DA 98-971 (Com. Car. Bur. rel. May 21, 1998). In this proceeding, we consider only the competitive consequences of an advanced services affiliate's use of CPNI, rather than any privacy issues.

²¹⁰ 47 U.S.C. § 251(c)(5) (imposing on incumbent LECs "the duty to provide reasonable public notice of changes in the information necessary for the transmission and routing of services using that local exchange carrier's facilities or networks, as well as of any other changes that would affect the interoperability of those facilities and networks").

²¹¹ *See* 47 U.S.C. § 151 (creating Commission for "purpose of regulating interstate and foreign commerce in communication by wire and radio . . ."). We conclude in the Order above that advanced services offered by incumbent LECs are "telephone exchange service" or "exchange access." *See supra* ¶ 40.

services affiliates equivalently to other competitive LECs, incumbents are more likely to offer such services through separate affiliates. On the other hand, if states impose incumbent LEC regulation on such affiliates, incumbent LECs are not likely to incur the expense of establishing such affiliates. We encourage the states, therefore, to the extent they require certification for competitive carriers, to certify such advanced services affiliates within their jurisdictions in the same manner as they certify other entities to provide advanced services. Moreover, we encourage states to apply regulatory policies in a nondiscriminatory fashion to all entities seeking to provide such services, including advanced services affiliates that qualify for non-incumbent LEC treatment under the rules we adopt in this NPRM. We believe that such nondiscriminatory treatment is essential in order to encourage innovation and investment in these new technologies. Congress has determined that state actions should not "prohibit, or have the effect of prohibiting, the ability of any entity to provide interstate or intrastate telecommunications service."²¹² We seek comment on whether, if we adopt safeguards less stringent than those proposed in this NPRM, states might have a legitimate interest in regulating an incumbent LEC's advanced services affiliate differently than other competitive LECs offering advanced services, due to increased entanglement of the incumbent LEC and its advanced services affiliate.

117. We note, however, that our discussion here is limited to state regulation of the provision by advanced services affiliates of advanced services. We do not address state regulation of an advanced services affiliate's provision of other services, such as circuit-switched voice services. In addition, we note that some states have expressed concerns about an incumbent LEC's incentive to continue to innovate and invest in the public switched network.²¹³ We are sensitive to these concerns, and we seek comment on how we and the states can work together to ensure that the incumbent LECs who choose to offer advanced services through affiliates do not allow their existing incumbent LEC networks to degrade.

C. Measures to Promote Competition in the Local Market

1. Collocation Requirements

a. Background

118. In 1992, in the *Expanded Interconnection* proceeding, the Commission adopted rules pursuant to section 201 of the Act that required large incumbent LECs to offer physical and virtual collocation²¹⁴ for parties that want to locate interstate special access and switched

²¹² 47 U.S.C. § 253(a).

²¹³ See, e.g., Public Service Commission of Wisconsin and the Indiana Utility Regulatory Commission Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 4.

²¹⁴ In a physical collocation arrangement, a competitor leases space at a LEC premises for its equipment. The competing provider has physical access to this space to install, maintain, and repair its equipment. See *Local Competition Order*, 11 FCC Rcd at 15784, n.1361; *Special Access Order*, 7 FCC Rcd at 7391, ¶ 42. In a virtual

transport transmission facilities at LEC premises.²¹⁵ In that proceeding, the Commission adopted rules governing, among other things, space allocation and exhaustion, types of equipment that could be collocated, and LEC premises where parties could collocate equipment.

119. In 1994, the United States Court of Appeals for the District of Columbia Circuit concluded that the Commission lacked the authority under section 201 of the Act to require physical collocation and remanded all other issues to the Commission.²¹⁶ On remand, the Commission adopted rules, which remain in place today, for both special access and switched transport that required LECs to provide either virtual or physical collocation.²¹⁷

120. As part of the 1996 Act, Congress adopted section 251(c)(6). This provision requires incumbent LECs to provide "for the physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier, except that the carrier may provide for virtual collocation if the local exchange carrier demonstrates to the State commission that physical collocation is not practical for technical reasons or because of space limitations."²¹⁸ In the *Local Competition Order*, the Commission adopted specific rules to implement the collocation requirements of section 251(c)(6).²¹⁹

collocation arrangement, the competitor designates the equipment to be placed at the incumbent LECs' premises. The competing provider, however, does not have physical access to the incumbent's premises. Instead, the equipment is under the physical control of the incumbent LEC, and the incumbent is responsible for installing, maintaining, and repairing the competing provider's equipment. See *Local Competition Order*, 11 FCC Rcd at 15785, ¶ 559; *Virtual Collocation Order*, 9 FCC Rcd at 5158, ¶ 7.

²¹⁵ *Special Access Order*, *supra*, 7 FCC Rcd 7369. Interstate access is a service traditionally provided by local telephone companies and enables interexchange carriers and other customers to originate and terminate interstate telephone traffic. Special access is a form of interstate access that uses dedicated transmission lines between two points, without switching the traffic on those lines. Switched transport is another form of interstate access comprising the transmission of traffic between interexchange carriers' (or other customers') points of presence and local telephone companies' end offices, where the traffic is switched and routed to end users. *Local Competition Order*, 11 FCC Rcd at 15784, n.1359.

²¹⁶ *Bell Atlantic v. FCC*, 24 F.3d 1441 (D.C. Cir. 1994).

²¹⁷ *Virtual Collocation Order*, *supra*, 9 FCC Rcd 5154; see also *Pacific Bell v. FCC*, 81 F.3d at 1147 (remanding the *Virtual Collocation Order* to the Commission to consider the impact of the 1996 Act on the collocation rules).

²¹⁸ 47 U.S.C. § 251(c)(6).

²¹⁹ 47 C.F.R. §§ 51.321, 51.323; see also *Local Competition Order*, 11 FCC Rcd at 15782-15811, ¶¶ 555-617. These rules were specifically upheld by the Eighth Circuit in *Iowa Utilities Board v. FCC*, 120 F.3d 753, 818 (8th Cir. 1997) (*Iowa Utilities Board*), cert. granted sub nom, *AT&T Corp. v. Iowa Utils. Bd.*, 118 S.Ct. 879 (1998).

121. ALTS, in its petition, argues that the rules adopted in the *Local Competition Order* do not go far enough.²²⁰ ALTS contends that incumbent LECs offer physical collocation, but impede competition by: (1) restricting equipment that can be placed in collocation spaces;²²¹ and (2) imposing substantial costs and delays on competing carriers for space and construction of collocation cages.²²² In addition, ALTS contends that the space available for physical collocation at many LEC premises is extremely limited, and in an increasing number of cases, altogether unavailable.²²³ ALTS, therefore, urges the Commission to adopt additional collocation rules to ensure that competing providers have access to physical collocation space so that they are able to provide advanced services using their equipment.²²⁴

²²⁰ ALTS Petition at 20-22; *see also* e.spire Comments (CC Docket No. 98-78) at 6-7; NTIA July 17 *Ex Parte* at 14-17.

²²¹ ALTS Petition at 21; *see also* Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 17; e.spire Comments (CC Docket No. 98-78) at 7.

²²² ALTS Petition at 18-22; *see also* Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 13-16; DATA Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 7-8, Att. 1; LCI Comments (CC Docket No. 98-78), Attach. at 22-27.

²²³ ALTS Petition at 20; *see also* Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 14; DATA Comments (CC Docket Nos. 98-11, 98-26, 98-32), Attach. 1 at 4-5; e.spire Comments (CC Docket No. 98-78) at 6.

²²⁴ ALTS Petition at 18-22; *see also* CIX Comments (CC Docket No. 98-78) at 5-6 (collocation is a necessity for competitors because xDSL services can only be offered to customers in close proximity of the incumbent LEC central office; Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 13-16; DATA Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 7-8, Attach. 1; e.spire Comments (CC Docket No. 98-78) at 6-8 (the accomplishment of the purposes of Section 706 requires that the Commission revise its collocation rules to increase available collocation space, broaden the use that may be made of such collocation space, and dramatically reduce the expense of physical collocation); Intermedia Comments (CC Docket No. 98-78) at 5-6 (Commission should revisit the existing collocation rules and include cageless collocation, cage sharing, cross-connection, and removal of equipment limitations in the collocation rules); LCI Comments (CC Docket No. 98-78), Attach. at 22-27; MCI Comments (CC Docket No. 98-78) at 6 (competitive LECs need to be able to collocate xDSL equipment); NAS Comments (CC Docket No. 98-78) at 4-5 (Commission should update central office collocation rules to require that incumbent LECs provide xDSL access providers with a right to small collocation cages or cageless collocation; to permit shared collocation cages and establish cross-connections to cages of other collocated carriers; to permit collocation of xDSL line cards, Internet routers, and remote switching modules); NEXTLINK Comments (CC Docket No. 98-78) at 5-6 (Commission should reopen its proceeding to revise the collocation rules, because the rules were developed before the development of xDSL-based services); CIX *Ex Parte*, CC Docket Nos. 98-11, 98-26, 98-32, 98-78, RM 9244, at 2 (filed July 30, 1998) (CIX July 30 *Ex Parte*) (a competitive Internet industry requires competitive LEC collocation at incumbent LEC offices on terms that are more efficient and flexible); NTIA July 17 *Ex Parte* at 14-17.

b. Adoption of National Standards**(1) Background**

122. In the *Local Competition Order*, the Commission adopted minimum requirements for nondiscriminatory collocation arrangements.²²⁵ The Commission adopted rules for, among other things, space allocation and exhaustion, types of equipment that could be collocated, and LEC premises where parties could collocate equipment.²²⁶ The Commission also concluded that state commissions should have the flexibility to adopt additional collocation requirements that are otherwise consistent with the Act and the Commission's regulations.²²⁷

(2) Discussion

123. We seek comment on the extent to which we should establish additional national rules for collocation pursuant to sections 201 and 251 in order to remove barriers to entry and speed the deployment of advanced services.²²⁸ Parties should address whether adoption of additional uniform standards would encourage the deployment of advanced services by increasing predictability and certainty, and by facilitating entry by competitors providing advanced services in multiple states. We also ask commenters to address how any collocation requirements they suggest would affect investment in, and deployment of, advanced services.²²⁹

124. We tentatively conclude that any standards we adopt in this proceeding should serve as minimum requirements and that states should continue to have flexibility to adopt additional requirements that respond to issues specific to that state or region. In the past two years, a number of states have adopted collocation requirements that go beyond the minimum requirements the Commission adopted in the *Local Competition* proceeding.²³⁰ With respect to

²²⁵ *Local Competition Order*, 11 FCC Rcd at 15782-15811, ¶¶ 555-617. The relevant collocation requirements are summarized in the following sections dealing with specific collocation issues.

²²⁶ *Id.*

²²⁷ *Id.* at 15783-84, ¶ 558.

²²⁸ See ALTS Petition at 18-22; MCI July 30 *Ex Parte* at 24; NTIA July 17 *Ex Parte* at 14-17.

²²⁹ See Letter from Lawrence Chimerine, Senior VP and Chief Economist, Erik Olbeter, Director, Advanced Telecom and Information Technology Program, and Larry C. Darby, Visiting Fellow, Economic Strategy Institute, to William E. Kennard, Chairman, Federal Communications Commission, regarding Section 706 of the Telecommunications Act of 1996, at 5-6 (dated July 30, 1998) (ESI July 30 *Ex Parte*).

²³⁰ See, e.g., *Joint Complaint of AT&T Communications of New York, Inc., et. al. Against New York Telephone Company Concerning Wholesale Provisioning of Local Exchange Service by New York Telephone Company and Sections of New York Telephone's Tariff No. 900*, Case 95-C-0657, *Proceeding on Motion of the Commission to Examine Issues Related to the Continuing Provision of Universal Service and to Develop a*

each subsection that follows, we encourage commenters to address whether any state approach to collocation might provide useful guidelines for additional national standards to facilitate deployment of advanced services. We welcome input from the states on each of these issues.

125. We note that competitive LECs can pursue remedies for violations of our collocation requirements before the Commission and the appropriate state commissions.²³¹ We seek comment on any measures we could take to aid enforcement of our collocation requirements.²³²

c. Collocation Equipment

(1) Background

126. Section 251(c)(6) requires incumbent LECs to allow collocation of "equipment necessary for interconnection or access to unbundled network elements"²³³ In the *Local Competition Order*, the Commission concluded that section 251(c)(6) requires collocation only of equipment used for: (1) interconnection for "the transmission and routing of telephone exchange service and exchange access" pursuant to section 251(c)(2); and (2) access to unbundled network elements for "the provision of a telecommunications service" pursuant to section 251(c)(3).²³⁴

127. The Commission concluded in the *Local Competition Order* that new entrants may collocate transmission equipment, including optical terminating equipment and multiplexers, on incumbent LEC premises.²³⁵ The Commission further concluded, at the time, that incumbent

Regulatory Framework for the Transition to Competition in the Local Exchange Market, Case 94-C-0095, *Proceeding on Motion of the Commission Regarding Comparably Efficient Interconnection Arrangements for Residential and Business Links*, Case 91-C-1174, *Complaint of AT&T Communications of New York, Inc. Against New York Telephone Company Concerning AT&T's Request for Four Collocated "Cages" to be Provided by New York Telephone Pursuant to its Optical Transport Interconnection Service II Tariff*, Case 96-C-0036, Order Directing Tariff Changes for Non-Pricing Terms and Conditions for Collocation (N.Y.P.S.C. Mar. 2, 1998).

²³¹ See *supra* ¶ 55 (discussing the Commission's expedited complaint process to resolve competitive issues in an accelerated fashion).

²³² See, e.g., NorthPoint July 29 *Ex Parte* at 4 (Commission should ensure that competitors actually receive critical services and facilities such as cageless collocation); CIX July 30 *Ex Parte* at 2 (a competitive Internet industry requires swift and effective enforcement of collocation requirements).

²³³ 47 U.S.C. § 251(c)(6).

²³⁴ *Local Competition Order*, 11 FCC Rcd at 15795, ¶ 581.

²³⁵ *Id.* 15794, ¶ 580.

LECs need not permit the collocation of other types of equipment, including switching equipment and equipment used to provide enhanced services.²³⁶

128. With respect to switching equipment, however, the Commission recognized that "modern technology has tended to blur the line between switching equipment and multiplexing equipment."²³⁷ A current trend in manufacturing appears to be to integrate multiple functions into telecommunications equipment.²³⁸ This trend has benefited service providers and their customers by reducing costs, promoting efficient network design, and expanding the range of possible service offerings.²³⁹ As a consequence of this integration, certain facilities that competing carriers need to collocate to provide advanced services efficiently may also perform switching functions.²⁴⁰ Because incumbent LECs are currently not required by our rules to permit collocation of switching equipment, competing providers argue that incumbent LECs may delay competitive entry by contesting, on a case-by-case basis, the functionality of a particular piece of equipment (which may perform switching functions in addition to its other functions) and whether it may be collocated.²⁴¹

(2) Discussion

129. We tentatively conclude that incumbent LECs should not be permitted to impede competing carriers from offering advanced services by imposing unnecessary restrictions on the type of equipment that competing carriers may collocate.²⁴² We seek comment on whether we

²³⁶ *Id.* at 15795, ¶ 581; 47 U.S.C. § 51.323(c). The Commission noted that switching equipment generally performs functions other than providing interconnection or access to unbundled network elements. *Local Competition Order*, 11 FCC Rcd at 15795, n.1417. The Commission indicated that it might reexamine the issue of collocation of switching equipment if it appeared that "such action would further achievement of the 1996 Act's procompetitive goals." *Id.* at 15795, ¶ 581.

²³⁷ *Local Competition Order*, 11 FCC Rcd at 15795, ¶ 581; *see also* NTIA July 17 *Ex Parte* at 15.

²³⁸ *See* NTIA July 17 *Ex Parte* at 15.

²³⁹ *See id.*

²⁴⁰ *See* ALTS Petition at 21; Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 17; e.spire Comments (CC Docket No. 98-78) at 7; NTIA July 17 *Ex Parte* at 15.

²⁴¹ Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 17; *see also* ALTS Petition at 21.

²⁴² ALTS Petition at 21 (Commission should eliminate restrictions on competitive LECs' ability to collocate remote switching modules, xDSL electronics, Internet routers and other advanced data equipment); *see also* CIX July 30 *Ex Parte* at 2 (a competitive Internet industry requires that incumbent LECs permit competitive LECs to collocate a range of equipment and technologies demanded by end users); Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 17; e.spire Comments (CC Docket No. 98-78) at 7; Letter from Steven Gorosh, Vice President and General Counsel, NorthPoint Communications, to Magalie Salas, Secretary, Federal Communications Commission, CC Docket Nos. 98-11, 98-26, 98-32, 98-91, at 6 (filed July 7, 1998) (*NorthPoint July 7 Ex Parte*);

should require incumbent LECs to allow new entrants to collocate equipment that is used for interconnection and access to unbundled network elements even if such equipment also includes switching functionality.²⁴³ Would allowing collocation of equipment that performs both switching and other functions encourage competitive LECs to use integrated equipment as a means to collocate equipment that otherwise would not be allowed in central offices? Would restrictions on placing switching equipment in collocation spaces prevent new entrants from taking advantage of integrated equipment that may be more cost efficient?²⁴⁴ We tentatively conclude that, if an incumbent LEC chooses to establish an advanced services affiliate, the incumbent must allow competitive LECs to collocate equipment to the same extent as the incumbent allows its advanced services affiliate to collocate equipment in order to meet its existing obligation to provide collocation on nondiscriminatory terms and conditions.²⁴⁵

130. If we decide to allow carriers (whether they be new entrants or advanced services affiliates) to collocate equipment that includes switching functionality, should we limit such collocation to equipment that performs both switching and other functions (such as multiplexing), or should we extend such collocation to switching equipment in general? If we allow carriers to collocate switching equipment, should we limit such collocation to packet-switching equipment or should we allow collocation of circuit-switching equipment? Does it make sense to differentiate among technologies? To the extent that parties urge the Commission to permit collocation of switching or other equipment that is not used for interconnection or access to unbundled network elements, as required by section 251(c)(6),²⁴⁶ parties should indicate what sections of the Act authorize the Commission to require collocation of such equipment.

131. We also seek comment on any other specific restrictions that we should adopt for switching equipment, assuming new entrants and advanced services affiliates are permitted to collocate such equipment. For example, given the lack of space in many central offices, we seek comment on whether we should adopt size restrictions on the switching equipment that a competing provider may collocate at a LEC's premises. Parties should address whether failure to impose size or other restrictions could impede competition by, for example, allowing the first competing provider in the market to request all of the available space, thereby potentially depriving other competitors of the opportunity to collocate facilities. We tentatively conclude

NTIA July 17 *Ex Parte* at 15-17.

²⁴³ See, e.g., TRA Comments (CC Docket No. 98-78) at 16) at 8-9; WorldCom Comments (CC Docket No. 98-78) at 13 (incumbent LECs must allow competitive LECs to collocate their own xDSL electronics at the central office).

²⁴⁴ See, e.g., NTIA July 17 *Ex Parte* at 15-17 (ban on collocation of switching equipment could discourage use of multifunction equipment and disadvantage competitive providers of advanced digital services).

²⁴⁵ See *supra* ¶¶ 85-117 (discussing advanced services affiliates).

²⁴⁶ See *Local Competition Order*, 11 FCC Rcd at 15795, ¶ 581 & n.1417.

that an advanced services affiliate should not be permitted to collocate its switching equipment if there is only enough room at the central office for one carrier to collocate such equipment. We seek comment on this tentative conclusion.

132. We further seek comment on whether carriers should be permitted to collocate other equipment on LEC premises. We tentatively conclude that we should continue to decline to require collocation of equipment used to provide enhanced services.²⁴⁷ We seek comment on this tentative conclusion. Parties should address whether provision of other advanced services would only be possible if we allow collocation of enhanced services equipment. Parties should further address whether allowing any other equipment in the collocation space will facilitate new entrants' ability to provide advanced services and thereby encourage widespread deployment of such services.

133. ALTS contends that some incumbent LECs will not allow competitive LECs to interconnect their collocated equipment.²⁴⁸ Under our current rules, an incumbent LEC is required to allow competing carriers to establish cross-connects to the collocated equipment of other competing carriers at the incumbent's premises.²⁴⁹ We seek comment on any additional steps we might take so that competitive LECs are able to establish cross-connects to the equipment of other collocated competitive LECs.

134. Finally, we tentatively conclude that incumbent LECs may require that all equipment that a new entrant places on its premises meet safety requirements to avoid endangering other equipment and the incumbent LECs' networks.²⁵⁰ Some performance and reliability requirements, however, may not be necessary to protect LEC equipment. Such requirements may increase costs unnecessarily, which would lessen the ability of new entrants to serve certain markets and thereby harms competition. We tentatively conclude that, to the extent that incumbent LECs use equipment that does not satisfy the Bellcore Network Equipment and Building Specifications (NEBS) requirements, competitive LECs should be able to collocate the

²⁴⁷ We conclude above that xDSL-based services are telecommunications services, not information services. See *supra* ¶ 35.

²⁴⁸ ALTS Petition at 19-20.

²⁴⁹ See 47 C.F.R. § 51.323(h); *Local Competition Order*, 11 FCC Rcd at 15801-02, ¶¶ 594-95.

²⁵⁰ Incumbent LECs generally require that equipment collocated at their premises complies with Bellcore's Network Equipment and Building Specifications (NEBS). These specifications, which tend to increase the cost of equipment, include both safety requirements, such as fire prevention specifications, and performance requirements. See DATA Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 21, Attach. 1; Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 16-18; NorthPoint July 7 *Ex Parte* at 6-7.

same or equivalent equipment. We further tentatively conclude that incumbent LECs should be required to list all approved equipment and all equipment they use.²⁵¹

135. We seek comment on whether competitive LECs should be required to use NEBS-compliant equipment where the incumbent LEC uses NEBS-compliant equipment for equivalent functions.²⁵² Parties should address whether allowing competitive LECs to collocate non-NEBS-compliant equipment would introduce new vulnerability into the central office. Commenters should distinguish between those NEBS safety requirements, which address the need to protect central office equipment and telecommunications networks, and NEBS performance requirements, which set equipment reliability standards.²⁵³

d. Allocation of Space

(1) Background

136. ALTS contends that, although incumbent LECs offer physical collocation, they impede competition by imposing substantial costs and delays on competing carriers for space and construction of collocation cages.²⁵⁴ In addition, ALTS and many commenters assert that space for physical collocation cages in many LEC premises is extremely limited, and in an increasing number of cases, is unavailable altogether.²⁵⁵

(2) Discussion

137. Given that space in incumbent LEC premises is limited, we tentatively conclude that we should require incumbent LECs to offer collocation arrangements to both new entrants

²⁵¹ See NorthPoint July 7 *Ex Parte* at 7 (asserting that incumbent LECs have refused to allow it to collocate certain equipment (as non-NEBS-compliant), although the incumbent LECs are using the same equipment).

²⁵² See NorthPoint July 7 *Ex Parte* at 6-7 (NEBS performance requirements irrelevant for establishing safety standards).

²⁵³ Equipment reliability standards may be better left to the mutual agreement of the competitive LEC, its customers and its equipment providers. By requiring competitive LECs to satisfy NEBS performance requirements, on top of NEBS safety requirements, competitive LECs may be compelled to engage in unnecessary, costly and lengthy testing which could delay competitive LECs' ability to provide advanced services. See NorthPoint July 7 *Ex Parte* at 6-7.

²⁵⁴ ALTS Petition at 18-22; see also Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 13-16; DATA Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 7-8, Attach. 1; LCI Comments (CC Docket No. 98-78), Attach. at 22-27; NorthPoint July 7 *Ex Parte* at 1-5.

²⁵⁵ ALTS Petition at 20; Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 14; DATA Comments (CC Docket Nos. 98-11, 98-26, 98-32), Attach. 1 at 4-5; e.spire Comments (CC Docket No. 98-78) at 6; NorthPoint July 7 *Ex Parte* at 1-2.

and any advanced services affiliate incumbent LECs establish that minimize the space needed by each competing provider in order to promote the deployment of advanced services to all Americans.²⁵⁶ Such alternative collocation arrangements include: (1) the use of shared collocation cages, within which multiple competing providers' equipment could be either openly accessible or locked within a secure cabinet;²⁵⁷ (2) the option to request collocation cages of any size without any minimum requirement, so that competing providers will not use any more space than is reasonably necessary for their needs;²⁵⁸ and (3) physical collocation that does not require the use of collocation cages ("cageless" collocation).²⁵⁹

138. We anticipate that requiring such alternative collocation arrangements would foster deployment of advanced services by facilitating entry into the market by competing carriers. We tentatively conclude that allowing these alternative collocation arrangements will optimize the space available at a LEC's premises, thereby allowing more competitive LECs to collocate equipment and provide service. Moreover, as ALTS indicates, more cost-effective collocation solutions may spur collocation in residential and less densely populated areas.²⁶⁰ We seek comment on what specific rules we should adopt to ensure that these alternative arrangements are offered in a manner that facilitates deployment of advanced services to the greatest extent possible.

139. We recognize that section 251(c)(6) requires the incumbent LEC to offer physical collocation unless the incumbent demonstrates to the state commission that such an arrangement is not technically feasible.²⁶¹ We note that U S WEST is currently offering a cageless collocation

²⁵⁶ See, e.g., CIX July 30 *Ex Parte* at 2 (a competitive Internet industry requires competitive LEC collocation at incumbent LEC offices on terms that are more efficient and flexible); CompTel Comments (CC Docket No. 98-78) at 3, 7 (Commission should reform collocation to provide competitors the option to collocate through more economical and efficient means, such as through smaller collocation spaces, sharing of collocation space, or "cageless" collocation); WorldCom (CC Docket No. 98-78) at 14, n.26 (incumbent LECs should be required to offer competitive LECs a more efficient use of collocation space, space in smaller increments, and shared space).

²⁵⁷ ALTS Petition at 21; e.spire Comments (CC Docket No. 98-78) at 7.

²⁵⁸ See ALTS Petition at 21 (urging the Commission to require that incumbent LECs offer smaller collocation cages than they currently offer); e.spire Comments (CC Docket No. 98-78) at 7.

²⁵⁹ See ALTS Petition at 21; Covad Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 15-16; e.spire Comments (CC Docket No. 98-78) at 7.

²⁶⁰ ALTS Petition at 21, n.38.

²⁶¹ For the definition of "technically feasible," see 47 C.F.R. § 51.5.

arrangement,²⁶² and SBC is permitting competitive LECs to share collocation space.²⁶³ We seek comment on whether, if an incumbent LEC offers a particular collocation arrangement, such a collocation arrangement should be presumed to be technically feasible at other LEC premises.²⁶⁴

140. In addition, we note that, in the *Local Competition Order*, the Commission concluded that incumbent LECs should be permitted reasonable security arrangements to protect their equipment and ensure network security and reliability.²⁶⁵ We recognize that adequate security for both incumbent LECs and competitive LECs is important to encourage deployment of advanced services. We now seek comment on the security and access issues and any other issues that may arise from a requirement that incumbent LECs provide these alternative collocation arrangements, including cageless collocation. In addressing any security or other issues, parties should identify any safeguards or other measures that would resolve such concerns.

141. With cageless collocation, in particular, we seek comment on whether incumbent LECs should be allowed to require escorts for competitive LEC technicians; whether concealed security cameras or badges with computerized tracking systems would provide sufficient protection; whether security measures should vary, or be allowed to vary, by central office; and what security measures are appropriate for unstaffed offices in remote areas. Given that incumbent LECs currently maintain control over competitive LEC equipment in virtual collocation arrangements, and competitive LECs have access to each other's equipment in shared collocation space, we tentatively conclude that carriers should be able to resolve any security concerns raised by cageless collocation. We ask parties with knowledge of virtual collocation and shared collocation arrangements to address how these arrangements might serve as models for cost-effective cageless collocation arrangements.

142. We further seek comment on any other alternative physical collocation arrangements that we should require to lower the cost of collocation and thereby facilitate competition in the advanced services marketplace. In addition, we seek comment on any other measures that would facilitate the implementation of collocation arrangements and thereby enable firms to enter new markets.²⁶⁶ Given that space preparation and construction times vary greatly

²⁶² See U S WEST Comments (CC Docket No. 98-78) at 32.

²⁶³ See Letter from Thomas Horn, Senior Counsel, SBC, to James Galloway, Clerk, Public Utility Commission of Texas, dated November 3, 1997, transmitting SBC Physical Collocation Tariff (section 7 of the Physical Collocation Tariff provides for sharing of collocation space).

²⁶⁴ See NTIA July 17 *Ex Parte* at 15.

²⁶⁵ *Local Competition Order*, 11 FCC Rcd at 15803, ¶ 598; see also *supra* ¶¶ 134-135.

²⁶⁶ We note that, in another proceeding, we are considering whether 251-type obligations should be extended to information service providers. See *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Review -- Review of Computer III and ONA Safeguards and*

depending on the location, parties should address whether there should be any uniform standards that would apply on a national level. We also ask commenters to address whether we can and should require incumbent LECs to remove obsolete equipment and non-critical offices in central offices to increase the amount of space available for collocation.²⁶⁷

143. We also seek comment on other measures that would reduce the cost of physical collocation arrangements. For example, we seek comment on ALTS' proposal that we establish rules for the allocation of up-front space preparation charges.²⁶⁸ One approach, adopted by Bell Atlantic in its pre-filing statement in the New York Commission's section 271 docket, is that the competing provider would be responsible only for its share of the cost of conditioning the collocation space, whether or not other competing providers are immediately occupying the rest of the space.²⁶⁹ In addition, Bell Atlantic committed to allowing smaller competing providers to pay on an installment basis.²⁷⁰ We seek comment on whether we should adopt Bell Atlantic's approach, or any other approach, as a national standard in order to speed the deployment of advanced telecommunications capability to all Americans. We also seek comment on the ramifications that such a national standard would have on the implementation and enforcement of the requirements of section 251 and 271. We tentatively conclude that any standards we adopt in this proceeding should serve as minimum requirements, and that states should continue to have flexibility to adopt additional collocation requirements, consistent with the Act.

144. Finally, we seek comment on how to address the entry barrier posed by delays between the ordering and provisioning of collocation space.²⁷¹ We seek comment on ALTS' proposal that we should establish presumptive reasonable deployment intervals for new collocation arrangements and expansion of existing arrangements.²⁷² Currently, a new entrant typically must first seek state competitive LEC certification, before it can begin to negotiate an interconnection agreement. In addition, competitive LECs have asserted that some incumbent LECs will not allow a requesting carrier to order collocation space until an interconnection

Requirements, CC Docket Nos. 95-20, 98-10, Further Notice of Proposed Rulemaking, 13 FCC Rcd 6040 (rel. Jan. 30, 1998).

²⁶⁷ See *NorthPoint July 7 Ex Parte* at 2.

²⁶⁸ ALTS Petition at 21.

²⁶⁹ See *Petition of New York Telephone Company for Approval of its Statement of Generally Available Terms and Conditions pursuant to Section 252 of the Telecommunications Act of 1996 and Draft Filing of Petition for InterLATA Entry pursuant to Section 271 of the Telecommunications Act of 1996*, New York Commission Case 97-C-0271, Pre-Filing Statement of Bell Atlantic - New York, at 21-23 (N.Y.P.S.C. filed April 6, 1998).

²⁷⁰ *Id.*

²⁷¹ See *NorthPoint July 7 Ex Parte* at 2-4.

²⁷² ALTS Petition at 21; NAS Comments (CC Docket No. 98-78) at 4-5.

agreement becomes final.²⁷³ If certain issues are taken to arbitration, there can be considerable delay. We seek comment on ways to shorten collocation ordering intervals. We also ask commenters to address whether we should set specific intervals by which time the incumbent LEC must or should be expected to provide the competitive LEC with: (1) information on collocation availability and prices; and (2) collocation space. We also seek comment on what should be done in the event that an incumbent LEC fails to meet a specified interval.²⁷⁴

e. Space Exhaustion

(1) Background

145. One of the major barriers facing new entrants that seek to provide advanced services on a facilities basis is the lack of collocation space in many LEC central offices. Under the Act, incumbent LECs must provide physical collocation unless they demonstrate to the state commission's satisfaction that "physical collocation is not practical for technical reasons or because of space limitations."²⁷⁵ Because incumbent LECs have the incentive and capability to impede competition by reducing the amount of space available for collocation by competitors, the Commission, in the *Local Competition Order*, required incumbent LECs that deny requests for physical collocation on the basis of space limitations to provide the state commission with detailed floor plans or diagrams of their premises.²⁷⁶ The Commission concluded that such submissions would aid the state commission in evaluating whether the denial of physical collocation was justified.²⁷⁷

(2) Discussion

146. We tentatively conclude that an incumbent LEC that denies a request for physical collocation due to space limitations should not only continue to provide the state commission with detailed floor plans, but should also allow any competing provider that is seeking physical collocation at the LEC's premises to tour the premises. Allowing competing providers to walk through a LEC's premise will enable competing providers to identify space that they believe could

²⁷³ See, e.g., NorthPoint July 7 *Ex Parte* at 2-3 (alleging that U S WEST has prevented NorthPoint from ordering collocation for several months by refusing to allow NorthPoint to place an order in any state in which it has not yet been approved as a competitive LEC, signed an interconnection agreement, and obtained state commission approval of the agreement, a process that NorthPoint asserts takes a minimum of six months in most states).

²⁷⁴ See NorthPoint July 7 *Ex Parte* at 2-4.

²⁷⁵ 47 U.S.C. § 251(c)(6).

²⁷⁶ *Local Competition Order*, 11 FCC Rcd at 15805, ¶ 602; see also NorthPoint July 7 *Ex Parte* at 1.

²⁷⁷ *Local Competition Order*, 11 FCC Rcd at 15805, ¶ 602.

be used for physical collocation. If, after the tour of the premise, the incumbent LEC and competing provider disagree about whether space limitations at that premise make collocation impractical, both carriers could present their arguments to the state commission. We tentatively conclude that state commissions will be better able to evaluate whether a refusal to allow physical collocation is justified if competing providers can view the LEC's premises and present their arguments to the state commission. We seek comment on these tentative conclusions.

147. We further tentatively conclude that, upon request from a competitive LEC, an incumbent LEC should submit to the requesting carrier a report indicating the incumbent LEC's available collocation space. This report should specify the amount of collocation space available at each requested premises, the number of collocators, and any modifications in the use of the space since the last report. The report should also include measures that the incumbent LEC is taking to make additional space available for collocation. We seek comment on this tentative conclusion. Parties should address whether the incumbent LEC should be required to include any additional information in such a report.

148. We also seek comment on measures that would facilitate the use of virtual collocation for the provision of advanced services. Although competing providers may prefer physical collocation arrangements that permit their employees to install and repair their own equipment, we seek comment on measures that would make virtual collocation an effective alternative in locations where physical collocation space is unavailable. We tentatively conclude that all competitive LECs must be offered the same virtual collocation arrangements as the incumbent provides to its advanced services affiliate in order to meet its existing obligation to provide collocation on nondiscriminatory terms and conditions.²⁷⁸

149. We seek comment on any other measures that would help ensure that sufficient collocation space will be available in the future. Such measures may include, but are not limited to, modifying our rules on warehousing of space.²⁷⁹ Parties should address how any such measures they propose would affect investment in, and deployment of, advanced services.²⁸⁰

²⁷⁸ See *supra* ¶¶ 85-117 (discussing advanced services affiliates); see also NorthPoint July 29 *Ex Parte* at 1-2 (If the incumbent LEC requires that it perform the installation and maintenance of virtually collocated equipment for the competitive LEC, the requirement also must extend to the incumbent's advanced services affiliate, so that the incumbent's employees (not the affiliate's employees) install the equipment and charge the affiliate. Similarly, if the incumbent allows no one else to perform maintenance functions such as emergency repair in the event of an outage, the incumbent must extend this rule to its affiliate, and must charge the affiliate for maintenance costs, such as training.).

²⁷⁹ In the *Local Competition Order*, the Commission concluded that incumbent LECs may retain a limited amount of floor space for defined future uses, but must allow competing providers to reserve space for future use on terms that are no less favorable. The Commission concluded, however, that incumbent LECs must relinquish any space held for future use prior to denying virtual collocation, but not physical collocation, due to lack of space. *Local Competition Order*, 11 FCC Rcd at 15805-06, ¶¶ 604-06; see also NorthPoint July 7 *Ex Parte* at 2.

²⁸⁰ ESI July 30 *Ex Parte* at 5-6.

f. Effects of Additional Collocation Requirements

150. Although this NPRM addresses ways in which the Commission can promote the deployment of advanced services, a number of our tentative conclusions and rule proposals relating to collocation may affect existing collocation arrangements. We seek comment on whether (and, if so, to what extent) any of our tentative conclusions or proposals might affect existing negotiated and arbitrated interconnection agreements, existing state requirements, or pending state proceedings.²⁸¹

2. Local Loop Requirements

a. Overview

151. In the Order above, we grant ALTS' request for a declaratory ruling that incumbent LECs are required to provide xDSL-compatible loops to requesting carriers pursuant to section 251(c)(3) and our implementing rules.²⁸² We are concerned, however, that our existing rules requiring the unbundling of loops do not fully ensure that competitive providers of advanced services have adequate access to the "last mile," which is critical to ensure that a variety of providers are able to offer the full range of advanced services that consumers may demand. Accordingly, in this section, we seek comment on rule changes that we could adopt pursuant to section 251 that would strengthen the ability of new entrants to gain access to xDSL-compatible loops.

b. Background

152. In the *Local Competition Order*, the Commission identified the local loop as a network element that incumbent LECs must unbundle "at any technically feasible point."²⁸³ It defined the local loop to include "two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide services such as ISDN, ADSL, HDSL, and DS1-level signals."²⁸⁴ To the extent technically feasible, incumbent LECs must "take affirmative steps to condition existing loop facilities to enable requesting carriers to provide services not currently provided over such facilities."²⁸⁵ For example, if a carrier requests an unbundled loop for the provision of ADSL service, and specifies that it requires a loop free of loading coils, bridged taps,

²⁸¹ See ALTS Petition at 38; CIX (CC Docket No. 98-78) at 10-11; e.spire Comments (CC Docket No. 98-78) at 10; Intermedia Comments (CC Docket No. 98-78) at 7; TRA Comments (CC Docket No. 98-78) at 9.

²⁸² See *supra* ¶ 52.

²⁸³ *Local Competition Order*, 11 FCC Rcd at 15689-90, ¶¶ 377-79.

²⁸⁴ *Id.* at 15691, ¶ 380.

²⁸⁵ *Id.* at 15692, ¶ 382. The requesting carrier bears the cost of such conditioning. *Id.*

and other electronic impedances, the incumbent must condition the loop to those specifications, subject only to considerations of technical feasibility. The incumbent may not deny such a request on the ground that it does not itself offer advanced services over the loop, or that other advanced services that the competitive LEC does not intend to offer could be provided over the loop. As the Commission stated in the *Local Competition Order*, "section 251(c)(3) does not limit the types of telecommunications services that competitors may provide over unbundled elements to those offered by the incumbent LEC."²⁸⁶ Under our existing rules, incumbent LECs are also required to provide competing carriers with nondiscriminatory access to the operations support systems functions for pre-ordering, ordering, and provisioning loops.²⁸⁷

153. The Commission also concluded in the *Local Competition Order* that it was "technically feasible" to unbundle loops that pass through integrated digital loop carrier systems or similar remote concentration devices, and required incumbent LECs to unbundle such loops for competitive LECs.²⁸⁸ In the *Local Competition Order*, however, the Commission did not require incumbent LECs to unbundle sub-loop elements, which would allow competitors access to the loop at the remote terminal.²⁸⁹ Even though the Commission determined that parties commenting on the issue of sub-loop unbundling had presented no technical impediments to such unbundling, the Commission concluded that sub-loop unbundling should be addressed by the states "on a case-by-case basis at this time."²⁹⁰ The Commission further concluded that it would revisit the issue of sub-loop unbundling at a later time based on actions taken by states "or other future developments."²⁹¹

c. Adoption of National Standards

154. We seek comment on the extent to which we should establish additional national rules for local loops pursuant to sections 201 and 251 in order to remove barriers to entry and

²⁸⁶ *Id.* at 15691-92, ¶ 381.

²⁸⁷ *Id.* at 15766, ¶ 523.

²⁸⁸ *Id.* at 15692-93, ¶¶ 383-84.

²⁸⁹ *Id.* at 15696, ¶ 391. Sub-loop elements in a digital loop carrier environment typically include the following components: (1) distribution cable, which typically is a two-wire or four-wire copper line that runs from the customer's premises to electronic equipment located at some point between the customer premise and the central office; (2) the feeder/distribution interface or concentration electronics, which generally are housed in underground controlled environmental vaults or above-ground enclosures, and which are used to aggregate distribution cables from individual customers and multiplex them onto a single high-capacity channel; and (3) feeder cable, typically fiber-optic cable that transports the high-capacity signal from the concentration electronics in the field to the incumbent LEC's central office.

²⁹⁰ *Id.* at 15696, ¶ 391.

²⁹¹ *Id.* at 15696, ¶ 391.

speed the deployment of advanced services.²⁹² Parties should address whether adoption of additional uniform standards would encourage the deployment of advanced services by increasing predictability and certainty, and by facilitating entry by competitors providing advanced services in multiple states. We also ask commenters to address how any local loop requirements they suggest would affect investment in, and deployment of, advanced services.²⁹³

155. We tentatively conclude that any standards we adopt in this proceeding should serve as minimum requirements and that states should continue to have flexibility to adopt additional requirements that respond to issues specific to that state or region. In the past two years, a number of states have adopted local loop requirements that go beyond the minimum requirements the Commission adopted in the *Local Competition* proceeding.²⁹⁴ With respect to each subsection that follows, we encourage commenters to address whether any state approach to local loops might provide useful guidelines for additional national standards to facilitate deployment of advanced services. We welcome input from the states on each of these issues.

156. We note that competitive LECs can pursue remedies for violations of our local loop requirements before the Commission and the appropriate state commissions.²⁹⁵ We seek comment on any measures we could take to aid enforcement of our local loop requirements.²⁹⁶

d. Loops and Operations Support Systems

157. We seek comment on whether our existing operations support system rules adequately ensure that competitive LECs have access to necessary information about loops.²⁹⁷ We tentatively conclude that incumbent LECs should provide requesting competitive LECs with sufficient detailed information about the loop so that competitive LECs can make an independent determination about whether the loop is capable of supporting the xDSL equipment they intend to

²⁹² See ALTS Petition at 18-22; MCI July 30 *Ex Parte* at 24; NTIA July 17 *Ex Parte* at 14-17.

²⁹³ ESI July 30 *Ex Parte* at 5-6.

²⁹⁴ See, e.g., *In Re Petitions by AT&T Communications of the Southern States, Inc., MCI Metro Access Transmission Services, Inc., for Arbitration of Certain Terms and Conditions of a Proposed Agreement with GTE Florida Inc., Concerning Interconnection and Resale Under the Telecommunications Act of 1996*, Docket Nos. 960847-TP, 960980-TP, Order No. PSC-97-0064-FOF-TP (Fla. P.S.C. Jan. 17, 1997) (requiring sub-loop unbundling).

²⁹⁵ See *supra* ¶ 55 (discussing the Commission's expedited complaint process to resolve competitive issues in an accelerated fashion).

²⁹⁶ See, e.g., NorthPoint July 29 *Ex Parte* at 1, 4-5 (Commission should ensure that competitors actually receive loop and operations support systems parity); CIX July 30 *Ex Parte*, Att. at 2 (a competitive Internet industry requires swift and effective enforcement of local loop requirements).

²⁹⁷ See, e.g., NAS Comments (CC Docket No.98-78) at 4; NorthPoint July 29 *Ex Parte* at 5.

install. Thus, competitive LECs would need access to such information as whether the loops pass through remote concentration devices, what, if any, electronics are attached to loops, the condition and location of loops, loop length, the electrical parameters that determine the suitability of loops for various xDSL technologies, and other loop quality issues.²⁹⁸ We tentatively conclude that it is important that competitors have the ability to make their own assessments because the parameters for determining whether a loop is xDSL-compatible may differ for different technologies. Such parameters may also change as technology evolves.²⁹⁹ We seek comment on these tentative conclusions and whether other types of information should also be made available. We note that, to the extent that a competitive LEC cannot obtain nondiscriminatory access to operations support systems, competitive LECs can pursue remedies for violations of our requirements before the Commission and the appropriate state commissions.³⁰⁰ We seek comment on any additional measures we could take to ensure that competitive LECs receive nondiscriminatory access to operations support systems.³⁰¹ We tentatively conclude that incumbent LECs must provide competitors with the same access to operations support systems as the incumbent provides to its advanced services affiliate pursuant to its existing obligation to provide nondiscriminatory access to operations support systems.³⁰²

158. We also seek comment on the type of information that is currently available to incumbent LECs. Do incumbent LECs currently have a detailed inventory of existing loops? Do incumbent LECs currently have electronic access to such information? If so, is the same quality of access being made available to new entrants? We tentatively conclude that, in order to satisfy the nondiscrimination requirements of the Act, competitive LECs should have access to the same electronic interfaces that are available to incumbent LECs to obtain loop information.³⁰³ We also tentatively conclude that, as new information becomes available, incumbent LECs should be required to share such information with new entrants immediately. We seek comment on these tentative conclusions.

²⁹⁸ See MCI July 30 *Ex Parte* at 23; NEXTLINK Comments (CC Docket No. 98-78) at 14-15; NorthPoint July 7 *Ex Parte* at 8.

²⁹⁹ Various manufacturers and research and development firms are improving upon and developing new varieties of xDSL technology. Furthermore, these firms may develop new methods to determine whether, and to what extent, loops are xDSL-compatible. See e.g., <http://telecom-info.bellcore.com/site-cgi/ido/index.html>; <http://www.xdsl.com/>.

³⁰⁰ See *supra* ¶ 55 (discussing the Commission's expedited complaint process to resolve competitive issues in an accelerated fashion).

³⁰¹ See, e.g., CompTel/ALTS July 29 *Ex Parte* at 3; see also CIX July 30 *Ex Parte*, Att. at 2 (a competitive Internet industry requires that competitive LECs obtain timely access to conditioned loops and swift and effective enforcement of this requirement).

³⁰² See *supra* ¶¶ 85-117 (discussing advanced services affiliates).

³⁰³ See 47 U.S.C. § 251(c)(3).

e. Loop Spectrum Management

159. We seek comment on the way in which we should address loop spectrum issues. In particular, we ask commenters to address any interference that may result from provision of advanced telecommunications capability using different signal formats on copper pairs in the same bundle.³⁰⁴

160. Twisted copper pairs, used to deliver xDSL-based services and other services, including plain old telephone service, are typically housed within binder groups. Signals from one pair within a binder group can generate noise in other pairs through electromagnetic coupling, commonly termed "crosstalk." Crosstalk can limit service performance.³⁰⁵ We ask parties to suggest ways to determine when a particular service, technology or piece of equipment causes network interference such that use of the particular service, technology, or piece of equipment should be prohibited.³⁰⁶ We also ask commenters to suggest ways to distinguish between legitimate claims that particular services, technologies or equipment create spectrum interference and claims raised simply to impede competition. We seek comment on whether the Commission should adopt any industry standards as the basis for national spectrum management requirements.³⁰⁷ We also seek comment on how any requirements should evolve over time so as to encourage and not stifle innovation. In addition, we seek comment on other approaches to spectrum management that would foster pro-competitive use of the loop plant by incumbent LECs and new entrants, while providing necessary network protection.

161. If we adopt any national standards on spectrum management, we propose to impose the same spectral requirements on both incumbent LECs and new entrants.³⁰⁸ We seek

³⁰⁴ See, e.g., NorthPoint July 7 *Ex Parte* at 8-9.

³⁰⁵ See MCI July 30 *Ex Parte* at 19.

³⁰⁶ See, e.g., *id.*

³⁰⁷ The T1E1.4 working group of the American National Standards Institute (ANSI) is developing standards for xDSL spectrum management. See e.g., Network and Customer Installation Interfaces - Asymmetric Digital Subscriber Line (ADSL) Metallic Interface (ANSI T1.413-1995) (ANSI T1.413 standard presents the electrical characteristics of the ADSL signals appearing at the network interface. The physical interface between the network and the customer installation is also described. The transport medium for the signals is a single twisted-wire pair that supports both Message Telecommunications Service (POTS) and full-duplex (simultaneous two-way) and simplex (from the network to the customer installation) digital services. This interface standard provides the minimal set of requirements for satisfactory transmission between the network and the customer installation. Equipment may be implemented with additional functions and procedures.) <ftp://ftp.t1.org/pub/t1stds/413-95.txt>. See also US West Spectrum Management *Ex Parte*, CC Docket No. 98-26, at 7 (filed July 21, 1998) (U S WEST July 21 *Ex Parte*); NorthPoint July 7 *Ex Parte* at 8-9.

³⁰⁸ See NorthPoint July 7 *Ex Parte* at 8-9.

comment on whether and how to grandfather existing technology that does not satisfy any new requirements. For example, we might adopt a "riparian rights" approach, under which new users could not interfere with technology already deployed, and would tolerate interference from the pre-existing technology. We seek comment on how we might best administer the grandfathering process.

162. We also seek comment on whether two different service providers should be allowed to offer services over the same loop, with each provider utilizing different frequencies to transport voice or data over that loop. xDSL technology, for example, separates a single loop into a POTS channel and a data channel, and can carry both POTS and data traffic over the loop simultaneously.³⁰⁹ A competitive LEC may want to provide only high-speed data service, without voice service, over an unbundled loop. Should the competitive LEC have the right to put a high frequency signal on the same loop as the incumbent LEC's voice signal? If a competitive LEC takes an entire loop, could the competitive LEC sell the voice channel back to the incumbent LEC or to another carrier? Should the competitive LEC be allowed to lease the loop for data services and resell the voice service of the incumbent LEC? Commenters should address with particularity the advantages and disadvantages of these various possibilities, and what practical considerations would arise in each situation. For example, which entity would manage the frequency division multiplexing equipment if two carriers are offering services over the same loop? We tentatively conclude that any voice product that the incumbent LEC provides to its advanced services affiliate would have to be made available to competitive LECs on the same terms and conditions.³¹⁰ For example, if the advanced services affiliate leases the loop and resells the incumbent's voice service, the competitive LEC must be allowed to do likewise.

f. Uniform Standards for Attachment of Electronic Equipment at the Central Office End of a Loop

163. To facilitate competition in the local loop, we tentatively conclude that there should be uniform national standards for attachment of electronic equipment (such as modems and multiplexers) at the central office end of a loop by incumbent LECs and new entrants. The requirements would apply to both incumbent LEC and new entrant equipment. The requirements would serve the same role, for the attachment of equipment to the central office end of a loop, as do the *Part 68 - Connection of Terminal Equipment to the Telephone Network* - rules for the attachment of customer premises equipment. Currently, each incumbent LEC sets its own requirements for central office equipment, and each has its own processes for certifying equipment before it can be connected to loop plant. This increases new entrants' costs and time to market. A simple set of national requirements would reduce new entrants' costs, speed their time

³⁰⁹ See Sprint Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 8; APK Net, Cyber Warrior, Helicon Online, Inforamp, Internet Connect, MTP, and Proaxis Communications Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 14-15; US West Comments (CC Docket Nos. 98-11, 98-32) at 5-6.

³¹⁰ See *supra* ¶¶ 85-117 (discussing advanced services affiliates).

to market, and reduce confusion. We seek comment on the content of these requirements. We also seek comment on whether central office equipment complying with these requirements should be certified, and if so, how.

g. Redefining the Local Loop to Ensure Competitive LEC Access to Loops Capable of Providing Advanced Services

164. In the Order above, we emphasize that, under our existing rules, incumbent LECs are required to make xDSL-compatible loops available to competitors.³¹¹ We seek comment on whether our current definition of the loop is sufficient to ensure that competitive LECs have access to the loop functionalities they need to offer advanced services, such as xDSL-based services, or whether any refinements to that definition are necessary to ensure that incumbent LECs are providing competitive LECs with loops capable of delivering such advanced services.³¹² Commenters should also address whether our current definition is sufficiently flexible and forward-looking to facilitate deployment of new technologies and new services in the future.

h. Unbundling Loops Passing through Remote Terminals

(1) Background

165. xDSL-Based Services over Digital Loop Carrier Technology. A traditional copper loop typically runs from the network interface device at the customer's premises to the LEC's central office. Because of voice transmission quality degradation and maintenance challenges associated with long copper loops, along with the economic efficiencies associated with aggregating individual loops, LECs have begun to deploy remote concentration devices. Remote concentration devices, such as digital loop carrier (DLC) systems,³¹³ are an efficient means of aggregating subscriber traffic on to common transmission facilities, usually fiber, for transmission

³¹¹ See *supra* ¶ 52.

³¹² See, e.g., ALTS Petition at 16-17; e.spire Comments (CC Docket No. 98-78) at 5-6 (if competitive LECs are refused permission to interconnect with xDSL equipment, are refused loops with xDSL electronics, and not given access to loops free of loading coils or bridged taps, competitive LECs will effectively be prevented from providing xDSL-based services on a significant number of loops).

³¹³ The use of DLCs varies by telephone company and typically ranges from almost zero to as much as 30 percent of the local loops within a given LEC's local network. A DLC converts analog signals, from many copper loops that terminate at a remote terminal, into digital signals, multiplexes the signals, and transports them, usually over fiber, to the central office. The two traditional DLC systems are universal DLC (UDLC) and integrated DLC (IDLC). UDLC, the older of the two systems, is not directly integrated with the switch, and converts digital signals back to analog at the central office before delivering the signals to the central office switch. IDLC is integrated with the switch and provides a direct, digital interface to a digital central office switch. It is more difficult to unbundle IDLC traffic, because UDLC traffic is demultiplexed before it reaches the central office switch, while IDLC traffic is not. For a more detailed discussion of IDLC and the methods of unbundling IDLC-delivered loops, see *infra*, Appendix C.

from a remote terminal to the central office, rather than dedicating a separate transmission facility (e.g., a copper loop) for each subscriber's traffic all the way from the customer's premises to the central office.

166. Although many local loops are able to support xDSL technology, some are not. For example, xDSL is distance sensitive, and bandwidth for xDSL-based services decreases as loop length increases.³¹⁴ In addition, loop equipment such as loading coils³¹⁵ and bridged taps,³¹⁶ which are deployed on many local loops, interfere with xDSL transmission. Furthermore, with current xDSL technology, xDSL transmissions can only be supported over continuous copper loops. Thus, in order to provide an xDSL-based service over a loop passing through a remote terminal, the loop must either be reassigned to a physical copper pair connecting the end user's premises to the central office, or the xDSL portion must terminate at the remote terminal, where it can be converted to a format compatible with the digital loop carrier (*i.e.*, through the use of a DSLAM at the remote terminal).

(2) Discussion

167. Unbundling DLC-Delivered Loops. As discussed in the Order above, we grant ALTS' request for a declaratory ruling that incumbent LECs are required to provide loops capable of transporting high-speed digital signals where technically feasible.³¹⁷ This requirement includes the obligation to unbundle high-speed data-compatible loops whether or not a remote concentration device like a digital loop carrier is in place on the loop.³¹⁸ We tentatively conclude that providing an xDSL-compatible loop as an unbundled network element is presumed to be "technically feasible" if the incumbent LEC is capable of providing xDSL-based services over that

³¹⁴ Different variations of xDSL technology have different distance limitations. See "General Introduction to Copper Access Technologies," http://www.adsl.com/general_tutorial.html.

³¹⁵ LECs use loading coils to modify the electrical characteristics of the local loop, allowing better quality voice frequency transmission over extended distances (typically greater than 18,000 feet). In this extended distance scenario, loading coils are placed every 6,000 feet on the line. Loading coils are not compatible with the higher frequency attributes of xDSL transmissions and they must be removed before xDSL-based services can be provisioned. The use of loading coils varies by LEC and typically ranges from virtually zero to as much as 20 percent of the local loops within a given LEC's access network.

³¹⁶ A bridged tap is any portion of a loop that is not in the direct talking path between the central office and the service users' terminating equipment. For example, a bridged tap may be an extension of the circuit beyond the service user's location. In order to provide xDSL, bridged taps generally have to be removed. Incomplete documentation on the physical layout of the network and opening and closing cable splices can make the process of locating and removing bridged taps a time consuming and, therefore, costly process.

³¹⁷ See *supra* ¶ 52.

³¹⁸ See *supra* ¶¶ 54, 153; see also NAS Comments (CC Docket No 98-78) at 2-3 (Commission should affirm that incumbent LECs have a duty to provide xDSL-equipped loops as an unbundled element when those loops are provisioned through a digital loop carrier or similar remote terminal).

loop. Consistent with the pro-competitive goals of the Act, we tentatively conclude that the incumbent LEC shall bear the burden of demonstrating that it is not technically feasible to provide requesting carriers with xDSL-compatible loops. We seek comment on these tentative conclusions.

168. We note that, to the extent that a competitive LEC cannot obtain nondiscriminatory access to xDSL-compatible loops, competitive LECs can pursue remedies for violations of our requirements before the Commission and the appropriate state commissions.³¹⁹ We seek comment on any additional measures we could take to ensure that competitive LECs receive nondiscriminatory access to access to xDSL-compatible loops.³²⁰ We tentatively conclude that if the incumbent chooses to offer xDSL-based services through an advanced services affiliate, whatever loops are provided to the affiliate must also be provided to the other entrants.³²¹

169. We ask commenters to address the technical issues that may arise when local loops pass through digital loop carriers or similar remote concentration devices. For example, we ask commenters to address the issues of loop quality, analog-to-digital translation of signals, electronic equipment attached to loops, loop length, and other issues that arise with remote concentration devices. We ask commenters to address the traffic management issues that may arise when local loops pass through digital loop carrier systems or similar remote concentration devices. We ask commenters to identify and evaluate any concerns that they identify with having the traffic on the digital loop carrier systems managed by the incumbent LEC and to identify feasible alternatives.³²² We encourage commenters to identify other technological problems and to propose concrete solutions to those problems. We also ask commenters to address the extent to which next generation digital loop carrier systems and other new technologies will affect the provision of advanced data services over unbundled loops.

170. We ask commenters to propose methods of unbundling loops passing through remote concentration devices that will enable competitive carriers to provide advanced services. We ask commenters to identify and evaluate the benefits and drawbacks of any proposed methods. For example, migrating a DLC-delivered loop to copper plant, although generally

³¹⁹ See *supra* ¶ 55 (discussing the Commission's expedited complaint process to resolve competitive issues in an accelerated fashion).

³²⁰ See, e.g., CompTel/ALTS July 29 *Ex Parte* at 3; see also CIX July 30 *Ex Parte*, Att. at 2 (a competitive Internet industry requires that competitive LECs obtain timely access to conditioned loops and swift and effective enforcement of this requirement).

³²¹ See *supra* ¶¶ 85-117 (discussing advanced services affiliates); see also NorthPoint July 29 *Ex Parte* at 2 (if the incumbent's advanced services affiliate receives digital loops, competitive LECs should be able to obtain unbundled digital loops).

³²² See, e.g., MCI July 30 *Ex Parte* at 21.

regarded as the means by which DLC-delivered loops can be made xDSL-compatible,³²³ may not always provide an xDSL-compatible loop, because customers served by digital loop carrier may be located far from the central office, and xDSL-based services are distance sensitive. Other methods, such as allowing the competitive LEC to collocate at the remote terminal may pose problems due to space limitations. Other methods may be extraordinarily costly or may require additional research or development before they can be deployed. We ask commenters to evaluate the technical feasibility, legal consequences, and policy ramifications of any proposed unbundling methods. We also ask commenters to consider how any loop requirements we may adopt will affect investment in, and deployment, of advanced services.³²⁴

171. We tentatively conclude that the competitive LEC may request any "technically feasible" method of unbundling the DLC-delivered loop, and the incumbent LEC is obligated to provide the particular method requested. We base this tentative conclusion on the premise that each competitive LEC may have its own business strategy and unique reasons for obtaining loop access in a particular manner or at a specific interconnection point.³²⁵ We tentatively conclude that, in the event that the incumbent LEC demonstrates that the unbundling method requested by the competitive LEC is not technically feasible, the competitive LEC may request other unbundling methods. In the event that the incumbent LEC demonstrates that none of the requested methods are technically feasible, the incumbent LEC may offer another unbundling method, provided that the method would provide the competitive LEC with a loop of equal quality and functionality as the incumbent's loop.³²⁶ We seek comment on these tentative conclusions.

172. We further tentatively conclude that competitive LECs should not be comparatively disadvantaged by incumbent LECs regarding provisioning of DLC-delivered loops. For example, if the technically feasible solution to provide xDSL-based service to a customer presently served by a DLC-delivered loop is bypass by additional copper infrastructure, an

³²³ See, e.g., *BellSouth Ex Parte*, CC Docket Nos. 97-208, 97-231, 97-121, 97-131 (filed April 1, 1998).

³²⁴ ESI July 30 *Ex Parte* at 5-6.

³²⁵ There currently appear to be three general types of competitive LECs that may request unbundled DLC-delivered loops. Each type of requesting carrier may want or need the DLC loop to be unbundled in a different way. First, certain competitive LECs may want to enter the market through a combination of unbundled network elements, such as the DLC-delivered loop and the unbundled switch (including all features, functions, and capabilities). Second, other competitive LECs that have their own switch may want only the functionality of a loop between the customer and the incumbent LEC's central office switch. Such competitive LECs may want to provide high-speed data access via xDSL technologies and may prefer a copper pair from the central office to the customer, provided a properly qualified, and sufficiently short, copper pair is available. Third, other competitive LECs, seeking to provide high-speed data access via xDSL technologies, may want to access the unbundled loop at the remote terminal. Access to the remote terminal implicates the sub-loop unbundling issues considered *infra* at ¶¶ 173-176.

³²⁶ See 47 C.F.R. §§ 51.307, 51.311, 51.313.

incumbent LEC (or its advanced services affiliate) should not be able to avail itself of that option while denying or delaying that option to a competitive LEC. Similarly, if the incumbent LEC (or its advanced services affiliate) provides xDSL-based services through the use of a DSLAM at the remote terminal, the competitive LEC must be able to avail itself of that option, either through the use of the incumbent LEC's DSLAM or its own DSLAM collocated at the remote terminal.³²⁷ Accordingly, we tentatively conclude that incumbent LECs must make available, in a nondiscriminatory manner, to competitive LECs the same methods that the incumbent (or its advanced services affiliate) uses itself to provide advanced telecommunications capability such as xDSL-based services. We further tentatively conclude that deployment intervals for provisioning xDSL-compatible loops should be the same for incumbent LECs and competitive LECs, regardless of whether the loop passes through a remote concentration device.³²⁸ We seek comment on these tentative conclusions. We also ask commenters to address whether we should require incumbent LECs to provision xDSL-compatible loops within a specified interval and, if so, what that interval should be.³²⁹ Again, we tentatively conclude that whatever accommodations are provided to the incumbent's advanced services affiliate must be equally provided to new entrants.³³⁰

173. Sub-Loop Unbundling and Collocation at the Remote Terminal. We seek comment on whether we need to extend the concept of loop unbundling to sub-loop elements in order to further the pro-competitive goals of the 1996 Act and facilitate deployment of advanced services.³³¹ We ask commenters to address whether it is technically feasible to require incumbent LECs to unbundle sub-loop elements and provide competitive LECs access to the remote terminal so that competitive LECs can provide advanced services.

³²⁷ For a discussion of competitive LEC access to remote terminals, *see infra* ¶¶ 173-176.

³²⁸ *See NorthPoint July 7 Ex Parte* at 7.

³²⁹ *See id.*

³³⁰ *See supra* ¶¶ 85-117 (discussing advanced services affiliates); *see also NorthPoint July 29 Ex Parte* at 2 (if the incumbent's advanced services affiliate is permitted to place its DSLAM in remote terminals, competitive LECs should be permitted to do so as well).

³³¹ *See ALTS Petition* at 41-44; *MCI July 30 Ex Parte* at 23 (incumbent LECs must provide access to all network elements encompassing distribution plant, remote terminals, and feeder plant; incumbent LECs must provide collocation options in remote terminals); *CIX July 30 Ex Parte*, Att. at 2 (a competitive Internet industry requires interconnection at points of aggregation, including remote terminal units of digital loop carrier systems); *NAS Comments (CC Docket No. 98-78)* at 3-4 (Commission should require incumbent LECs to permit a competitor's xDSL line cards in the incumbent LEC's remote terminals as part of the existing requirement for incumbent LECs to permit carrier collocation at any technically feasible point. This would allow customers served by loops provisioned through remote terminals to have a choice of any carrier, and would also expand consumer choice, if the competitor's xDSL line card has a potentially wider array of xDSL offerings than the incumbent LEC's); *WorldCom Comments (CC Docket No. 98-78)* at 16 (competitive LEC must have choice of either putting its own electronics in the remote terminal or utilizing incumbent's electronics).

174. We tentatively conclude that incumbent LECs must provide sub-loop unbundling and permit competitive LECs to collocate at remote terminals, unless the incumbent LEC can demonstrate one of the following with respect to the particular remote terminal requested by the competitive LEC: (1) sub-loop unbundling is not "technically feasible;" or (2) there is insufficient space at the remote terminal to accommodate the requesting carrier. We make this tentative conclusion because the use of sub-loop elements and access to the remote terminal may be the only means by which competitive LECs can provide xDSL-based services for those end-users whose connection to the central office is currently provided via digital loop carrier systems. If an incumbent deploys digital loop carriers extensively and refuses to allow competitive LECs access at the remote terminal, the incumbent can effectively deny market entry by such competitive LECs and discourage the deployment of advanced telecommunications capability. We further tentatively conclude that it would be an unreasonable practice for an incumbent LEC to deny competitive LECs collocation at the remote terminal on either of these grounds, while allowing its own affiliate to collocate at the remote terminal. We seek comment on these tentative conclusions. In particular, we seek comment on whether such sub-loop unbundling and remote terminal access are, in fact, necessary in order for competitive LECs to provide high bandwidth services, such as xDSL-based services. We ask commenters to consider whether new technologies, such as next generation digital loop carrier systems, might reduce or eliminate the need for competitive LEC access to sub-loop elements. As an alternative to requiring sub-loop unbundling, or if sub-loop unbundling proves to be technically infeasible or there is insufficient space at the remote terminal, we seek comment on whether the incumbent LEC should be obligated to provide an alternative unbundling method at no greater cost to the competitive LEC. Should the incumbent LEC be obligated to demonstrate that such unbundling method will provide the competitive LEC with a loop of the same quality and functionality as the loop that the competitive LEC would have obtained through access to the sub-loop element(s)?

175. We also ask commenters to address the use to which competitive LECs would put sub-loop elements and what specific sub-loop elements, if any, should be unbundled. We also ask commenters to address the technical issues involved with loops that pass through remote concentration devices, including the ability of competitive providers of advanced services to access the necessary elements of the incumbent LEC networks. Commenters should address the extent to which the incumbent LEC's control over the remote terminal and electronics therein might limit the ability of end users to access a full range of competitive services.³³² We seek comment on the technical issues of customer premises equipment and central office or remote terminal equipment compatibility, and we ask commenters that perceive problems to propose solutions that would ensure that end users have the widest possible access to competitive services. We also ask commenters to address what should be done if more competitive LECs request access to a remote terminal than the remote terminal can accommodate. What would be a fair

³³² For example, the xDSL customer premises equipment must have an electronic match at the carrier's remote terminal or other xDSL termination point. An incumbent LEC's installation of a particular manufacturer's DSLAM at a remote terminal might limit the ability of customers using the xDSL customer premises equipment of another manufacturer to utilize the remote terminal DSLAM.

means of allocating limited space? Should there be a lottery system? Should the space be auctioned? Should the space be made available on a "first come, first served" basis? If we conclude that "first come, first served" is the most appropriate method, how can we ensure that incumbent LECs do not fill up all the available space before competitive LECs have the opportunity to collocate their equipment? We tentatively conclude that an incumbent LEC may not take all the available space in a remote terminal, and then transfer ownership of that equipment in the remote terminal to an advanced services affiliate. We seek comment on this tentative conclusion.

176. We seek comment from those with evidence demonstrating or challenging the proposition that sub-loop unbundling and competitive LEC access to remote terminals may impair network reliability or pose significant technical problems. We seek comment on whether accountability for the network would be lost or compromised if competitive LECs are allowed access to the incumbent LEC's remote terminals or other plant in the field. We seek comment on whether there is a need for operational, administrative, and maintenance procedures for allowing access to the incumbent LEC's plant in the field in order to ensure network quality and reliability. We seek comment on how best to allow such access and ask commenters to propose operational, administrative and maintenance procedures to ensure network quality and reliability in the event that we permit competitive LECs access to incumbent LEC plant in the field. We also seek comment on ways to minimize the cost of providing such access.

i. Effects of Additional Requirements for Local Loops

177. We seek comment on whether (and if so, to what extent) any of our tentative conclusions or proposals might affect existing negotiated or arbitrated interconnection agreements, existing state requirements, or pending state proceedings.³³³

D. Unbundling Obligations Under Section 251(c)(3)

1. Background

178. In the Order, we grant the ALTS petition to the extent that ALTS requests a declaratory ruling that (1) advanced services are telecommunications services, and that the facilities and equipment used to provide advanced services are network elements subject to the obligations in section 251(c),³³⁴ and (2) incumbent LECs are required to unbundle loops capable of transporting high speed digital signals.³³⁵

³³³ See ALTS Petition at 38; CIX (CC Docket No. 98-78) at 10-11; e.spire Comments (CC Docket No. 98-78) at 10; Intermedia Comments (CC Docket No. 98-78) at 7; TRA Comments (CC Docket No. 98-78) at 9.

³³⁴ See *supra* ¶ 29.

³³⁵ See *supra* ¶ 27.

179. Sections 251(c)(3) and 251(d)(2) of the Act set forth the standards that the Commission must consider in identifying unbundled network elements that incumbent LECs must make available to competitors. Section 251(c)(3) requires incumbent LECs to provide requesting carriers with "nondiscriminatory access to network elements on an unbundled basis at any technically feasible point" ³³⁶ The Commission noted in the *Local Competition Order*, however, that section 251(d)(2) gave it authority "to refrain from requiring incumbent LECs to provide all network elements for which it is technically feasible to provide access." ³³⁷ The Commission further concluded that, to identify unbundled elements, the Commission "shall 'consider, at a minimum,' whether access to proprietary elements is necessary (the 'proprietary standard'), and whether requesting carriers' ability to provide services would be impaired if the desired elements were not provided by an incumbent LEC (the 'impairment standard')." ³³⁸ Although section 251(d)(2) provides that the "proprietary standard" and the "impairment standard" serve as "minimum" criteria that the Commission must weigh, the Commission declined, at the time, to adopt any additional criteria under section 251(d)(2) that might affect incumbent LEC unbundling requirements. ³³⁹

2. Discussion

180. We now seek comment on the specific unbundling requirements we should impose on network elements used by incumbent LECs in the provision of advanced services. Parties should address the specific network elements that incumbent LECs should be required to unbundle pursuant to section 251(c)(3). In particular, parties should address the applicability of section 251(d)(2), namely: (1) the extent to which particular network elements are "proprietary" as that term is used in section 251(d)(2)(a), and (2) the extent to which a carrier would be "impair[ed]," as that term is used in section 251(d)(2)(b), in its ability to offer advanced services without unbundled access to a particular network element.

181. We also seek comment on whether there are any additional criteria under section 251(d)(2) that the Commission should consider when identifying those network elements used to provide advanced services that must be made available pursuant to section 251(c)(3). Parties suggesting additional criteria should address the extent to which consideration of those criteria could lead the Commission to remove certain facilities used to provide advanced services from the unbundling obligations of section 251(c)(3). Parties should also address the extent to which consideration of each criterion will promote the deployment of advanced services.

³³⁶ 47 U.S.C. § 251(c)(3); see *Local Competition Order*, 11 FCC Rcd at 15640, ¶ 278.

³³⁷ *Local Competition Order*, 11 FCC Rcd at 15641, ¶ 279.

³³⁸ 47 U.S.C. § 251(d)(2) (emphasis added).

³³⁹ *Local Competition Order*, 11 FCC Rcd at 15644, ¶ 288.

182. In addition, we seek comment on the attributes of particular network elements that may make unbundling of those elements technically infeasible. For example, we note that it may not be technically feasible to offer unbundled access to individual packet switches. If the functionality offered by a single packet switch in the incumbent's network is not available to a competitor using packet switches of a different manufacturer, we seek comment on whether the unbundling of that packet switch would be "technically infeasible." In addition, we ask commenters how an incumbent LEC's claim of technical infeasibility should be verified, such as whether the lack of a standard network interface, for example, should support such a claim.

183. We also seek comment on NTIA's proposal that we find section 251(c) to be fully implemented on a service-by-service basis.³⁴⁰ For example, NTIA suggests that the Commission should determine that section 251(c) is fully implemented with respect to xDSL services only after incumbent LECs "give competitors access to . . . loop facilities capable of supporting DSL services and collocation space on [incumbent] LEC premises."³⁴¹ Parties commenting on this proposal should address whether it provides an appropriate framework for ensuring compliance with section 251(c) by incumbent LECs.

184. In addition, given our objective in this proceeding to encourage deployment of wireline advanced services by all telecommunications carriers, including incumbent LECs, we seek comment in this section on any other specific measures that the Commission should take to provide regulatory relief from the obligations of section 251(c) for incumbent LECs that choose to offer advanced services on an integrated basis. Parties should address the extent to which any measures they propose will give incumbent LECs greater incentive to offer advanced services, promote competition in the advanced services market, and encourage widespread deployment of such services. Parties should also address whether such relief would justify the loss of significant pro-competitive benefits that we expect would accompany a separate affiliate approach.

E. Resale Obligations Under Section 251(c)(4)

a. Background

185. Section 251(c)(4) imposes on incumbent LECs the obligation to offer for resale "any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers."³⁴² In the *Local Competition Order*, the Commission explained that "an incumbent LEC must establish a wholesale rate for each retail service that: (1) meets the statutory definition of a 'telecommunications service'; and (2) is provided at retail to subscribers

³⁴⁰ NTIA July 17 *Ex Parte* at 8, n.23.

³⁴¹ *Id.* at 8.

³⁴² 47 U.S.C. § 251(c)(4).

who are not 'telecommunications carriers.'"³⁴³ The Commission emphasized that the resale obligation extends to *all* such telecommunications services.³⁴⁴

186. The Commission went on to state, though, that "exchange access services are not subject to the resale requirements of section 251(c)(4)."³⁴⁵ Although "end users do occasionally purchase some access services" such as special access, it reasoned, the "vast majority" of purchases of interstate access service are telecommunications carriers.³⁴⁶ The Commission drew a distinction between telecommunications services "targeted to end-user subscribers," which Congress "clearly intended" to be subject to the resale requirement, and those "predominantly offered to, and taken by " interexchange carriers which are not subject to the resale requirement."³⁴⁷ The Commission concluded that exchange access services, as a class, fell in the latter category, and thus, the Commission concluded, outside the bounds of section 251(c)(4).³⁴⁸

b. Discussion

187. In the Order, we conclude that an incumbent LEC has the obligation to offer for resale the advanced services that it generally offers to subscribers who are not telecommunications carriers.³⁴⁹ We further conclude above that, to the extent advanced services are telephone exchange services, incumbent LECs must offer such services for resale.

188. We now seek comment on the applicability of section 251(c)(4) to advanced services to the extent that such services are exchange access services. We tentatively conclude that such advanced services are fundamentally different from the exchange access services that the Commission referenced in the *Local Competition Order* and concluded were not subject to section 251(c)(4). We expect that advanced services will be offered predominantly to ordinary residential or business users or to Internet service providers. None of these purchasers are telecommunications carriers.³⁵⁰

³⁴³ *Local Competition Order*, 11 FCC Rcd at 15934, ¶ 871.

³⁴⁴ *Id.* at 15930, 15931, 15934, ¶¶ 863, 865-66, 871; *see, e.g.*, AT&T Reply Comments (CC Docket Nos. 98-11, 98-26, 98-32) at 11.

³⁴⁵ *Local Competition Order*, 11 FCC Rcd at 15934, ¶ 873.

³⁴⁶ *Id.*

³⁴⁷ *Id.* at 15935, ¶ 874.

³⁴⁸ *Id.*

³⁴⁹ *See supra* ¶ 30.

³⁵⁰ *See Report to Congress on Universal Service* at ¶¶ 73-82 (Internet service providers are not telecommunications carriers).

189. By its terms, section 251(c)(4) applies to "any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers." Advanced services generally offered by incumbent LECs to subscribers who are not telecommunications carriers meet this statutory test.³⁵¹ We thus tentatively conclude that these services fall within the core category of retail services that both Congress and the Commission deemed subject to the resale obligation, and the reasoning that led the Commission in the *Local Competition Order* to exclude exchange access from the section 251(c)(4) resale obligation does not apply. We tentatively conclude, therefore, that advanced services marketed by incumbent LECs generally to residential or business users or to Internet service providers should be deemed subject to the section 251(c)(4) resale obligation, without regard to their classification as telephone exchange service or exchange access.³⁵² We seek comment on these tentative conclusions.

F. Limited InterLATA Relief

1. Background

190. In this section, we seek comment on the scope of section 271(b)(3) of the Act, which permits the BOCs and their affiliates to provide certain "incidental interLATA services."³⁵³ In addition, section 3(25)(B) of the Act permits the BOCs to modify LATA boundaries provided that the Commission approves such modifications.³⁵⁴ Since the 1996 Act became law, both the Commission and the Common Carrier Bureau (acting on delegated authority) have approved a significant number of LATA boundary modifications.³⁵⁵ As a general matter, the Commission, within the discretion granted to it under the Act, weighs the need for the proposed modification against the potential harm from anticompetitive BOC activity, and considers whether the proposed modification will have a significant effect on the BOC's incentive to open its local

³⁵¹ As noted above, advanced services are telecommunications services. *See supra* ¶¶ 35-36.

³⁵² 47 U.S.C. § 251(c)(4). To the extent that specific advanced services are marketed primarily to telecommunications carriers, however, they would remain outside the scope of the resale obligation.

³⁵³ 47 U.S.C. § 271(b)(3).

³⁵⁴ 47 U.S.C. § 3(25)(B).

³⁵⁵ *See, e.g., Petitions for Limited Modifications of LATA Boundaries to Provide Expanded Local Calling Service (ELCS) at Various Locations*, CC Docket No. 96-159, Memorandum Opinion and Order, 12 FCC Rcd 10646 (1997) (*ELCS MO&O*) (granting 23 requests for boundary modifications to permit calls within certain extended local calling service areas that straddle LATA boundaries to be treated as intraLATA); *see also Petitions for LATA Association Changes by Independent Telephone Companies*, Memorandum Opinion and Order, CC Docket No. 96-158, 12 FCC Rcd 11769 (1997) (*Association Order*) (granting requests to modify LATA boundaries to switch three independent telephone company exchanges in Texas from one SBC LATA to another); *Guadalupe Valley Telephone Cooperative Request for LATA Relief Between the Waelder Exchange and Corpus Christi LATA*, Memorandum Opinion and Order, 13 FCC Rcd 4560 (Network Services Div., Com. Car. Bur., 1998).

market pursuant to section 271.³⁵⁶ In the Order above, we deny Ameritech's, Bell Atlantic's, and U S WEST's requests for large-scale changes in LATA boundaries for packet-switched services, because such changes could effectively eviscerate section 271 for those services and circumvent the procompetitive incentives for opening the local market to competition.³⁵⁷ In this section, we seek comment on the criteria we should use in evaluating requests for more targeted LATA boundary changes. We also seek comment on whether there are any other forms of interLATA relief that we should consider.

2 Discussion

191. Incidental InterLATA Services. Section 271(b)(3) permits the BOCs and their affiliates to provide "incidental interLATA services," as defined in section 271(g).³⁵⁸ We seek comment on the scope of this authority as it relates to BOC provision of advanced services. Section 271(g)(2), for example, permits the BOCs to provide "two-way interactive video services or Internet services over dedicated facilities to or for elementary and secondary schools."³⁵⁹ This authority clearly allows the BOCs to provide certain advanced services to or for elementary and secondary schools. We seek comment on whether the ability to provide the other incidental interLATA services defined in section 271(g) affects the BOCs' ability to deploy advanced services on a reasonable and timely basis.

192. LATA Boundary Modifications for Elementary and Secondary Schools and Classrooms. We seek comment on whether additional relief beyond the incidental interLATA authority set forth in section 271(g)(2) would help ensure that elementary and secondary schools and classrooms have adequate access to advanced services.³⁶⁰ We tentatively conclude, for example, that it would be reasonable to approve LATA boundary modifications that allow BOCs to provide advanced services to entire elementary or secondary school districts on an intraLATA basis, when the school districts straddle LATA boundaries. We ask commenters to suggest other types of LATA boundary modifications that would encourage deployment of advanced telecommunications capability to elementary and secondary schools and classrooms. Parties

³⁵⁶ *ELECs MO&O* at 12 FCC Rcd at 10657-57, ¶ 23; *see also Petition for Declaratory Ruling Regarding US West Petitions to Consolidate LATAs in Minnesota and Arizona*, Order, 12 FCC Rcd 4738 (Com. Car. Bur. 1997) (*LATA Modification Order*), *petition for recon. and application for review or stay pending* (determining, in regard to U S WEST requests to create single LATAs within each of Arizona and Minnesota, that the Commission could not have, and did not, delegate its authority over LATA boundary changes to the states).

³⁵⁷ *See supra* ¶¶ 39-82.

³⁵⁸ 47 U.S.C. § 271(b)(3).

³⁵⁹ 47 U.S.C. § 271(g)(2).

³⁶⁰ We note that section 706(a) directs us "to encourage the deployment . . . of advanced telecommunications capability to . . . elementary and secondary schools and classrooms . . ." 47 U.S.C. § 157 note.

should address, with particularity, the criteria that we should use to evaluate these requests. We seek comment, for example, on whether we should adopt the same criteria used in the expanded local calling service proceedings.³⁶¹ Parties should also address whether we should take such actions only to the extent that advanced services are provided by BOC advanced services affiliates, rather than by the BOCs.

193. Network Access Points. We seek comment on the criteria that we should use to evaluate LATA boundary modification requests that would allow BOCs to carry packet-switched traffic across current LATA boundaries for the purpose of providing their subscribers with high-speed connections to nearby network access points, which are points of access to the Internet.³⁶² U S WEST contends that many rural areas do not have high-capacity network access points.³⁶³ We seek comment on the criteria we should use to determine whether a LATA has high-speed access to the Internet. Commenters should provide empirical data on the number and location of LATAs that do not contain high-speed network access points.

194. We tentatively conclude that some modification of LATA boundaries may be necessary to provide subscribers in rural areas with the same type of access to the Internet that other subscribers throughout the nation enjoy. We also tentatively conclude that modification of those boundaries for the purpose of facilitating high-speed access to the Internet would further Congress' goal of ensuring that advanced services are deployed to all Americans.³⁶⁴ Furthermore, we tentatively conclude that such boundary modifications would be consistent with the Common Carrier Bureau's decision that, under certain circumstances, a limited LATA boundary modification for integrated services digital network (ISDN) services is appropriate where such a modification is necessary to accommodate a demonstrated need and would have only a small impact on competition.³⁶⁵ We seek comment on these tentative conclusions. We also seek comment on whether LATA modifications to facilitate high-speed access to the Internet for rural subscribers would be consistent with the requirement under section 10(d) of the Act that the Commission must ensure that the requirements of section 271 are fully implemented before a BOC may offer interLATA services.³⁶⁶

³⁶¹ See, e.g., *ELCS MO&O*, 12 FCC Rcd 10646.

³⁶² Harry Newton, *Newton's Telecom Dictionary* at 477 (14th ed. 1998).

³⁶³ U S WEST Petition at 8-24.

³⁶⁴ 47 U.S.C. § 157 note.

³⁶⁵ *Southwestern Bell Telephone Company Petition for Limited Modification of LATA Boundaries to Provide ISDN at Hearne, Texas*, Memorandum Opinion and Order, NSD No. NSD-LM-97-26, DA 98-923 (Com. Car. Bur. rel. May 18, 1998) (granting SBC's request for a limited LATA boundary modification for the purpose of providing ISDN services in one LATA through facilities in a different LATA).

³⁶⁶ See *supra* ¶¶ 80-82; *LATA Modification Order*, 12 FCC Rcd at 4751, ¶ 25 (concluding that section 10(d) limits the manner in which the Commission may exercise its sole and exclusive authority to approve the

195. In addition, we seek comment on the type of documentation that BOCs should submit in order to qualify for such a LATA boundary modification. We note that in a July 23, 1998 petition, Bell Atlantic asks that we modify LATA boundaries for the limited purpose of allowing Bell Atlantic to provide high-speed connections between West Virginia's two LATAs and between West Virginia and the nearest Internet access points located in other states.³⁶⁷ We ask parties to address whether the information in Bell Atlantic's petition is the appropriate type of documentation that a BOC should submit. We also seek comment on whether the LATA boundary modification should be withdrawn if a high-speed network access point is established in the LATA or whether it should expire at a certain date. We further seek comment on the competitive impact of permitting LATA boundary modifications in this limited context. Parties should address whether the BOCs are the only carriers likely to serve areas that do not currently contain high-speed network access points.³⁶⁸ Parties should also address whether we should take such action only to the extent that advanced services are provided by BOC advanced services affiliates, rather than by the BOCs.

196. Additional Targeted InterLATA Relief. We seek comment on whether we have authority to take other actions to facilitate deployment of advanced services and, if so, the criteria we should use in evaluating such requests. For example, we seek comment on the criteria we should use in evaluating requests to permit BOCs and/or BOC affiliates to provide corporate intranet and extranet services or to serve institutions such as universities or health care facilities. Parties should address any safeguards that we should adopt to ensure that these services are provided in a pro-competitive manner and that any targeted interLATA relief does not undermine the incentives for opening the local market to competition. Such safeguards may include, but not be limited to, taking such actions only to the extent they are provided by BOC advanced services affiliates, rather than by the BOCs.

VII. PROCEDURAL MATTERS

A. Ex Parte Presentations

modification of LATA boundaries).

³⁶⁷ Emergency Request of Bell Atlantic-West Virginia for Authorization to End West Virginia's Bandwidth Crisis, CC Docket No. 98-11 (filed July 23, 1998). *See Request by Bell Atlantic-West Virginia for Interim Relief Under Section 706, or, in the Alternative, a LATA Boundary Modification - Pleading Cycle Established*, DA-98-1506, Public Notice (rel. July 28, 1998). We do not act upon this petition at this time.

³⁶⁸ We note that several parties support the BOCs' Petitions for LATA boundary relief on the ground that the BOCs are in the best position to provide the advanced telecommunications capabilities needed by their communities. *See, e.g.*, Cheyenne Leads Comments (CC Docket No. 98-26) at 1; Laramie Economic Development Corporation Comments (CC Docket No. 98-26) at 1; St. George Area Chamber of Commerce Comments (CC Docket No. 98-26) at 1; Washington County, Utah, Economic Development Council Comments (CC Docket No. 98-26) at 1.

197. The matter in Docket No. 98-147, initiated by the NPRM portion of this item, shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.³⁶⁹ Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required.³⁷⁰ Other rules pertaining to oral and written presentations are set forth in Section 1.1206(b) as well.

B. Initial Paperwork Reduction Act Analysis

198. The NPRM contains either a proposed or modified information collection. As part of its continuing effort to reduce paperwork burdens, we invite the general public and the Office of Management and Budget (OMB) to take this opportunity to comment on the information collections contained in this Notice, as required by the Paperwork Reduction Act of 1995, Public Law No. 104-13. Public and agency comments are due at the same time as other comments on this Notice; OMB comments are due 60 days from date of publication of this Notice in the Federal Register. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

C. Initial Regulatory Flexibility Analysis

199. As required by the Regulatory Flexibility Act, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible impact on small entities of the proposals suggested in this document. The IRFA is set forth as Appendix D. Written public comments are requested with respect to the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the rest of the NPRM, but they must have a separate and distinct heading, designating the comments as responses to the IRFA. The Office of Public Affairs, Reference Operations Division, will send a copy of this NPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act.

³⁶⁹ *See Amendment of 47 C.F.R. § 1.1200 et seq. Concerning Ex Parte Presentations in Commission Proceedings*, GC Docket No. 95-21, Report and Order, 12 FCC Rcd 7348, 7356-57, ¶ 27 citing 47 C.F.R. § 1.1204(b)(1) (1997).

³⁷⁰ *See* 47 C.F.R. § 1.1206(b)(2), as revised.

D. Comment Filing Procedures

200. The proceeding, Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, is initiated by the NPRM portion of this item. Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before September 21, 1998 and reply comments on or before October 13, 1998. All filings should refer only to Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24,121 (1998). Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number, which in this instance is CC Docket No. 98-147. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address.>" A sample form and directions will be sent in reply.

201. Parties who choose to file by paper must file an original and four copies of each filing. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 1919 M St. N.W., Room 222, Washington, D.C. 20554.

202. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to Janice Myles, Common Carrier Bureau, Policy and Program Planning Division, 1919 M Street, N.W., Room 544, Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using WordPerfect 5.1 for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labelled with the commenter's name, proceeding (including the docket number, in this case, CC Docket No. 98-147), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th Street, N.W., Washington, D.C. 20037.

203. Regardless of whether parties choose to file electronically or by paper, parties should also file one copy of any documents filed in this docket with the Commission's copy contractor, International Transcription Services, Inc., 1231 20th Street, N.W., Washington, D.C., 20036. Comments and reply comments will be available for public inspection during regular

business hours in the FCC Reference Center, 1919 M Street, N.W., Room 239, Washington, D.C., 20554.

204. Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also comply with section 1.49 and all other applicable sections of the Commission's rules.³⁷¹ We also direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to utilize a table of contents, regardless of the length of their submission. We also strongly encourage that parties track the organization set forth in this NPRM in order to facilitate our internal review process.

205. Written comments by the public on the proposed and/or modified information collections are due on or before September 21, 1998 and reply comments on or before October 13, 1998. Written comments must be submitted by the OMB on the proposed and/or modified information collections on or before 60 days after date of publication in the Federal Register. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 234, 1919 M Street, N.W., Washington, DC 20554, or via the Internet to jboley@fcc.gov and to Timothy Fain, OMB Desk Officer, 10236 NEOB, 725 - 17th Street, N.W., Washington, DC 20503 or via the Internet to fain_t@al.eop.gov.

E. Further Information

206. For further information regarding this proceeding, contact Linda Kinney, Assistant Division Chief, Policy and Program Planning Division, Common Carrier Bureau, at 202-418-1580 or lkinney@fcc.gov or Jordan Goldstein, Attorney, Policy and Program Planning Division, Common Carrier Bureau, at 202-418-1580 or jgoldste@fcc.gov. Further information may also be obtained by calling the Common Carrier Bureau's TTY number: 202-418-0484.

VIII. ORDERING CLAUSES

207. Accordingly, IT IS ORDERED that, pursuant to sections 1-4, 10, 201, 202, 251-254, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, 251-254, 271, and 303(r), the ORDER is hereby ADOPTED. The requirements adopted in this Order shall be effective 30 days after publication of a summary thereof in the Federal Register.

208. IT IS FURTHER ORDERED that, pursuant to sections 1-4, 10, 201, 202, 251-254, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, 251-254, 271, and 303(r), the NOTICE OF PROPOSED RULEMAKING is hereby ADOPTED.

³⁷¹ See 47 C.F.R. § 1.49.

209. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this NOTICE OF PROPOSED RULEMAKING, including the Initial Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the Regulatory Flexibility Act, *see* 5 U.S.C. § 605(b).

210. IT IS FURTHER ORDERED that, pursuant to sections 1-4, 10, 201, 202, 251-254, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, 251-254, 271, 272, and 303(r), the Petitions filed by ALTS, Ameritech, SBC, U S WEST, and Bell Atlantic are GRANTED to the extent described herein and otherwise DENIED.

211. IT IS FURTHER ORDERED that, pursuant to sections 1-4, 10, 201, 202, 251-254, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, 251-254, 271, and 303(r), the Petition filed by the Alliance for Public Technology IS GRANTED to the extent described herein.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

APPENDIX A

CC Docket Nos. 98-11, 98-26, 98-32

Comments

Alliance for Public Technology
America Online, Inc.
American Communications Services, Inc. (ACSI)
Ameritech
APK Net, Ltd.; Cyber Warrior, Inc.; Helicon On-Line, L.P.; InfoRamp; Internet Connect Company; MTP, LLC, dba JavaNet; and ProAxis Communications, Inc.
Association for Local Telecommunications Services (ALTS)
AT&T Corp.
Aurora Chamber of Commerce
BellSouth Corporation
Bismarck/Mandan Development Association
Cablevision Lightpath, Inc.
Cedar City/Iron County Economic Development
Cheyenne Leads
Commercial Internet Exchange Association
Compaq Computer Corporation
Competition Policy Institute
Competitive Telecommunications Association (CompTel)
Computer & Communications Industry Association
Council of Chief State School Officers
Covad Communications Company
Division of the Ratepayer Advocate, State of New Jersey
DSL Access Telecommunications Alliance
Economic Strategy Institute
Electric Lightwave, Inc.
Excel Telecommunications, Inc.
Focal Communications Corporation; Hyperion Telecommunications, Inc.; KMC Telecom Inc.;
and McLeodUSA Incorporated
Global NAPs, Inc.
GTE Service Corporation
ICG Telecom Group, Inc.
Information Technology Association of America
Intermedia Communications Inc.
Internet Access Coalition
Laramie Economic Development Corporation
LCI International Telecom Corp.
Level 3 Communications, Inc.

MCI Telecommunications Corporation
Minnesota Department of Public Service
Montana Rural Development Partners
National Association of the Deaf
National Association of Development Organizations
National Association of Regulatory Utility Commissioners
National Black Chamber of Commerce, et al.
Network Access Solutions, Inc.
Next Level Communications
Omnipoint Communications Inc.
Organizations Concerned About Rural Education, American Association of School Administrators, National Association of Secondary School Principals, and National Association of Partners in Education, Inc.
Pennsylvania Public Utility Commission
Public Service Commission of Wisconsin and the Indiana Utility Regulatory Commission
St. George Area Chamber of Commerce
SBC Communications Inc.
Sprint Corporation
State of Utah House of Representatives
Sun Microsystems, Inc.
Telecommunications Resellers Association
Teleport Communications Group Inc.
Transwire Communications, L.L.C.
United Homeowners Association, et al.
United States Telephone Association
University of North Dakota
U S WEST, Inc.
Utah Rural Development Council
Washington County, Utah Economic Development Council
WorldCom, Inc.
Wyoming State Legislature
XCOM Technologies, Inc.

Reply Comments

AT&T Corp.
Bell Atlantic
CAI Wireless Systems, Inc.
Cisco Systems, Inc.
Commercial Internet Exchange Association
Comcast Corporation
DSL Access Telecommunications Alliance
Economic Strategy Institute

Focal Communications Corporation; Hyperion Telecommunications, Inc.; KMC Telecom Inc.;
and McLeodUSA Incorporated
Intermedia Communications Inc.
Issue Dynamics, Inc.
LCI International Telecom Corp.
Level 3 Communications, Inc.
MCI Telecommunications Corporation
New York Department of Public Service
NEXTLINK Communications, Inc.
NYSERNet
Pennsylvania Public Utility Commission
PSINet, Inc.
SBC Communications Inc.
Sprint Corporation
United States Telephone Association
U S WEST Communications, Inc.
WorldCom, Inc.

CC Docket No. 98-78

Comments

AT&T Corp.
Bell Atlantic
BellSouth Corporation
Commercial Internet Exchange Association
Competitive Telecommunications Association (CompTel)
e.spire Communications, Inc.
GTE Service Corporation
Hyperion Telecommunications, Inc.
Independent Telephone & Telecommunications Alliance
Intermedia Communications Inc.
KMC Telecom Inc.
LCI International Telecom Corp.
Level 3 Communications, Inc.
MCI Telecommunications Corporation
Network Access Solutions, Inc.
New York Department of Public Service
NEXTLINK Communications, Inc.
SBC Communications Inc.
Sprint Corporation
Telecommunications Resellers Association
Teleport Communications Group Inc.
United States Telephone Association
U S WEST, Inc.
WorldCom, Inc.

Reply Comments

Association for Local Telecommunications Services (ALTS)
AT&T Corp.
GTE Service Corporation
KMC Telecom Inc.
LCI International Telecom Corp.
Level 3 Communications, Inc.
MCI Telecommunications Corporation
NEXTLINK Communications, Inc.
SBC Communications Inc.
Teleport Communications Group Inc.
United States Telephone Association

CC Docket No. 98-91

Comments

Allegiance Telecom, Inc.
AT&T Corp. and Teleport Communications Group Inc.
BellSouth Corporation
Campaign for Telecommunications Access
Coalition Representing Internet Service Providers
Commercial Internet Exchange Association
Competitive Telecommunications Association (CompTel)
Covad Communications Company
DSL Access Telecommunications Alliance
e.spire Communications, Inc.
GTE Service Corporation
Hyperion Telecommunications, Inc.
ICG Telecom Group, Inc.
Intermedia Communications Inc.
KMC Telecom Inc.
LCI International Telecom Corp.
McCullough and Associates, P. C.
MCI Telecommunications Corporation
Sprint Corporation
Telecommunications Resellers Association
United States Telephone Association
WorldCom, Inc.

Reply Comments

Allegiance Telecom, Inc.
AT&T Corp. and Teleport Communications Group Inc.
Comcast Corporation
KMC Telecom Inc.
MCI Telecommunications Corporation
New York Department of Public Service
SBC Communications Inc.

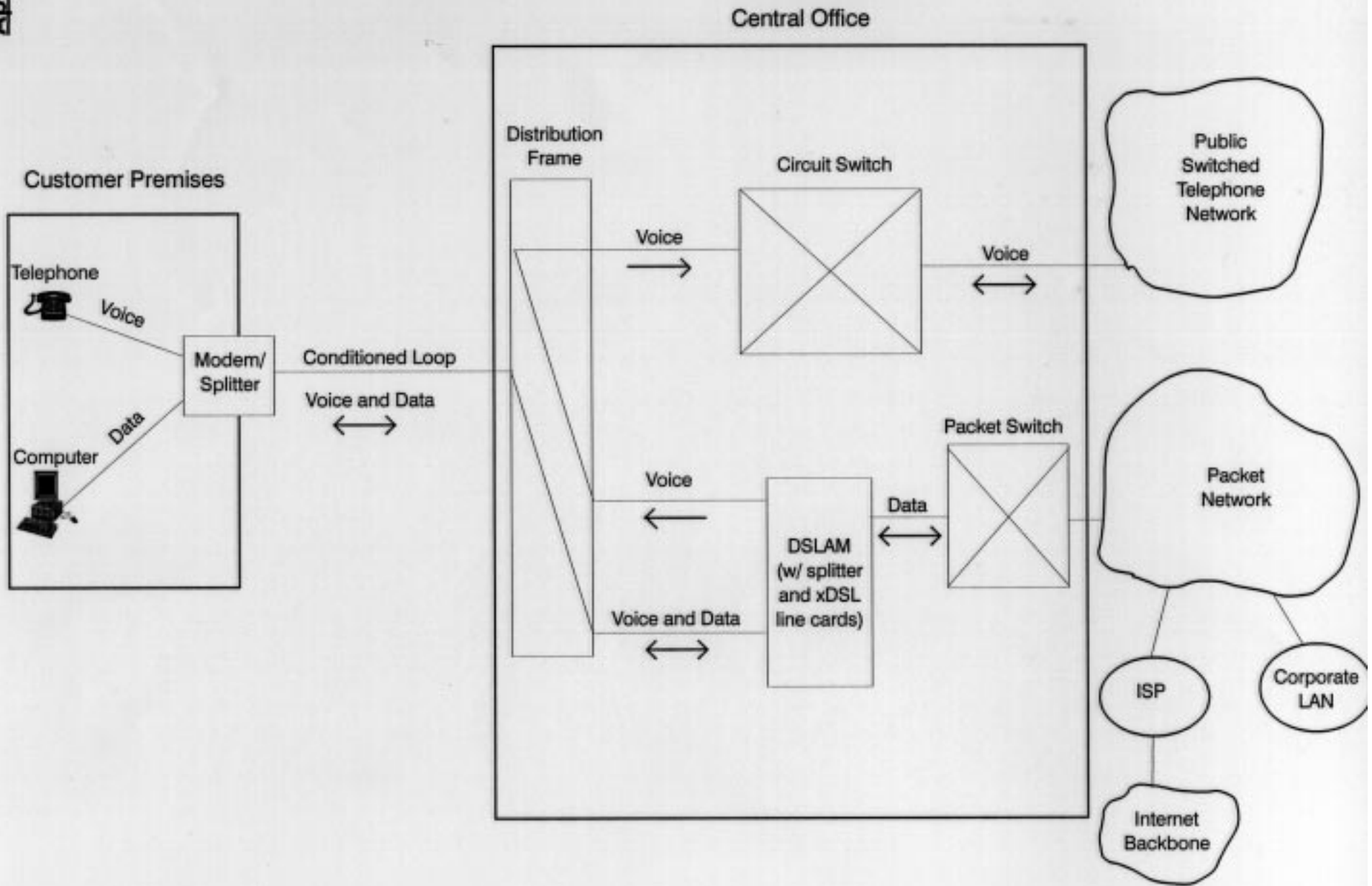
RM-9244
Comments

Alliance for Public Technology
Association for Local Telecommunications Services (ALTS)
AT&T Corp.
Commercial Internet Exchange Association
Janet Poley, et al.
Keep America Connected!
LCI International Telecom Corp.
MCI Telecommunications Corporation
National Association of the Deaf
Sprint Corporation

Reply Comments

Alliance for Public Technology
AT&T Corp.
BellSouth Corporation
Competitive Telecommunications Association (CompTel)
MCI Telecommunications Corporation
National Association of Community Action Agencies
Next Level Communications
SBC Communications Inc.
Sprint Corporation
TransWire Communications, L.L.C.
United States Telephone Association
Worldcom, Inc.

xDSL: General Configuration



APPENDIX C

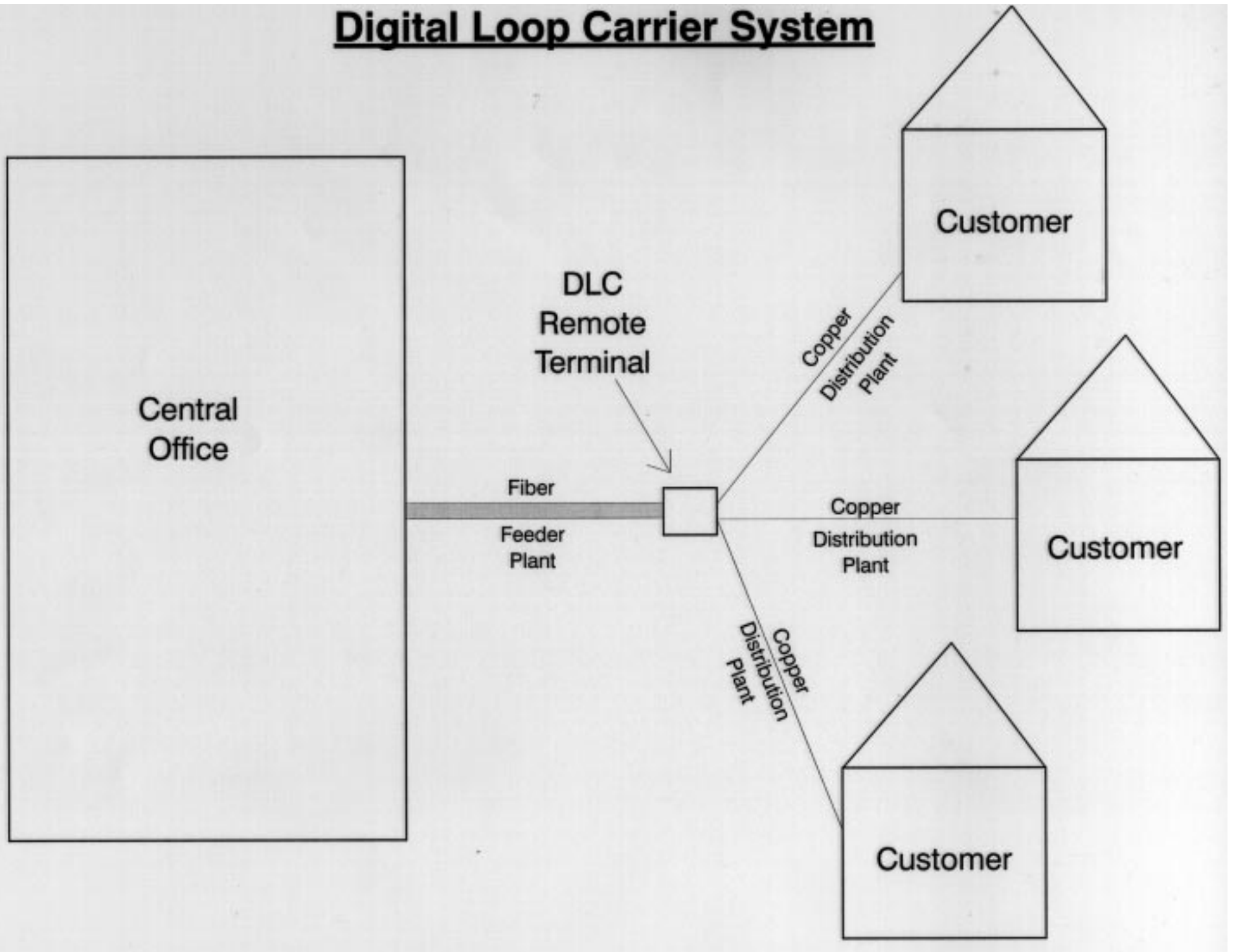
Digital Loop Carrier Systems

212. Digital loop carriers (DLCs) digitally encode and multiplex subscriber loop channels into DS1³⁷² signals (or higher) for more efficient transmission or extended range than traditionally allowed for by copper loops. With DLC, analog signals, carried from the customer's premises to a remote terminal, are converted to digital signals, multiplexed with other signals and transported, generally over fiber, to the LEC central office. The two traditional digital loop carrier systems are universal digital loop carrier (UDLC) and integrated digital loop carrier (IDLC). UDLC, the older version of DLC technology is not directly integrated into the switch, and the digital signals must be routed through a central office terminal and converted back to analog signals before reaching the central office switch. Accordingly, UDLC technology is capable of interfacing with any analog or digital central office switch. In contrast, IDLC eliminates the need to perform this digital-to-analog signal conversion and the demultiplexing of loop circuits before the signals reach the switch, because IDLC technology establishes a direct, digital interface to a digital central office switch. IDLC technology can operate only with a digital switch.

213. DLC technology provides significant economies. By concentrating loops in the field and sending digitized signals to the central office over fiber strands, incumbent LECs reduce loop costs and improve the performance and quality of the loop. Terminating loops at the DLC remote terminal reduces the effective length of the copper line, generally improving the quality and reliability of the service. Another benefit of DLC is that individual signals can be multiplexed into a higher speed DS1 format for transmission to a central office over a single fiber optic or 4-wire circuit. While the remote terminal architecture solves many problems for POTS, it makes provisioning of xDSL-based services more complicated. For example, xDSL-based services require that a clean copper pair connect the customer premises to the DSLAM. The transmission facility between the remote terminal and the central office in a DLC environment, however, is typically fiber. As a result, xDSL-based services generally cannot be deployed unless the remote terminal is equipped with a DSLAM or the loop is migrated to copper.

³⁷² A DS1 is the 1.544 Mbps first-level signal in the digital transmission hierarchy. Traditionally, 24 64-kbps DS0 channels have been multiplexed up to the 1.544 Mbps DS1 rate, with each DS0 channel carrying the digital representation of an analog voice channel.

Digital Loop Carrier System



APPENDIX D**INITIAL REGULATORY FLEXIBILITY ANALYSIS**

214. As required by the Regulatory Flexibility Act (RFA),³⁷³ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this Notice of Proposed Rulemaking (NPRM).³⁷⁴ Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for submitting comments in this proceeding. The Commission will send a copy of the NPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.³⁷⁵ In addition, the NPRM and IRFA (or summaries thereof) will be published in the Federal Register.³⁷⁶

I. Need for and Objectives of this NPRM

215. In this NPRM, we propose an optional alternative pathway for incumbent LECs that would allow separate affiliates to provide advanced services free from incumbent LEC regulation. In particular, if an incumbent LEC chooses to offer advanced services through an affiliate that is truly separate from the incumbent, that affiliate would not be deemed an incumbent LEC and therefore would not be subject to incumbent LEC regulation, including the obligations under section 251(c). On the other hand, if the advanced services affiliate derives an unfair advantage from its relationship with the incumbent, that affiliate should be viewed as stepping into the shoes of the incumbent LEC and would be subject to all the requirements that Congress established for incumbent LECs. We propose in this NPRM specific structural separation and

³⁷³ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

³⁷⁴ The NPRM is in the matter of Petition of Bell Atlantic Corporation For Relief from Barriers to Deployment of Advanced Telecommunications Services, CC Docket No. 98-11; Petition of U S West Communications, Inc. For Relief from Barriers to Deployment of Advanced Telecommunications Services, CC Docket No. 98-26; Petition of Ameritech Corporation to Remove Barriers to Investment in Advanced Telecommunications Technology, CC Docket No. 98-32; Petition of the Alliance for Public Technology Requesting Issuance of Notice of Inquiry and Notice of Proposed Rulemaking to Implement Section 706 of the 1996 Telecommunications Act, RM-9244, Petition of the Association for Local Telecommunications Services (ALTS) for a Declaratory Ruling Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability Under Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-78; Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell Petition for Relief from Regulation Pursuant to Section 706 of the Telecommunications Act of 1996 and 47 U.S.C. § 160 for ADSL Infrastructure and Service, CC Docket No.98-91; Deployment of Wireline Services Offering Advanced Telecommunications Capability Pursuant to Section 706(a) of the Telecommunications Act of 1996, CC Docket No. 98-XX.

³⁷⁵ See 5 U.S.C. § 603(a).

³⁷⁶ See *id.*

nondiscrimination requirements that need to be in place in order for an affiliate to be deemed a non-incumbent LEC, and thus not subject to section 251(c). We also offer guidance on various factors that the Commission should consider in determining when an advanced services affiliate would be an "assign" of the incumbent LEC, and, therefore, subject to the obligations of section 251(c).

216. In this NPRM, we also propose additional rule changes that would apply whether or not incumbent LECs choose to establish a separate affiliate to provide advanced services. We propose rules to ensure that all entities seeking to offer advanced services have adequate access to collocation and loops, which is critical to promote competition in the marketplace for advanced services. We then seek comment on ways to modify the section 251(c) unbundling requirements, once companies are in compliance with the rule changes we propose regarding collocation and access to loops. Finally, we seek comment on measures that would provide BOCs with targeted interLATA relief to ensure that all consumers, even those in rural areas, are able to reap the benefits of advanced telecommunications capability.

II. Legal Basis

217. The legal basis for any action that may be taken pursuant to the NPRM is contained in sections 1-4, 10, 201, 202, 251-254, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, 251-254, 271, and 303(r).

III. Description and Estimate of the Number of Small Entities to which the Proposals, if Adopted, Would Apply

218. 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 proposals in this NPRM, if adopted.³⁷⁷ The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."³⁷⁸ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.³⁷⁹ A small business concern is one which: (1) is independently

³⁷⁷ See 47 U.S.C. § 603(b)(3).

³⁷⁸ See 47 U.S.C. § 601(6).

³⁷⁹ 47 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to the RFA, 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." 5 U.S.C. § 601(3).

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).³⁸⁰

219. Below, we further describe and estimate the number of small entities that may be affected by the proposals in this NPRM, if adopted.

220. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its *Telecommunications Industry Revenue* report, regarding the Telecommunications Relay Service (TRS).³⁸¹ According to data in the most recent report, there are 3,459 interstate carriers.³⁸² These carriers include, *inter alia*, local exchange carriers (LECs), wireline carriers and service providers, interexchange carriers, competitive access providers, operator service providers, pay telephone operators, providers of telephone toll service, providers of telephone exchange service, and resellers.

221. The SBA has defined establishments engaged in providing "Telephone Communications, Except Radiotelephone" to be small businesses when they have no more than 1,500 employees.³⁸³ Below, we discuss the total estimated number of telephone companies and small businesses in this category, and we then attempt to refine further those estimates.

222. Although some affected incumbent LEC may have 1,500 or fewer employees, we do not believe that such entities should be considered small entities within the meaning of the RFA because they are either dominant in their field of operations or are not independently owned and operated, and therefore by definition not "small entities" or "small business concerns" under the RFA. Accordingly, our use of the terms "small entities" and "small businesses" does not encompass small incumbent LECs. Out of an abundance of caution, however, for regulatory flexibility analysis purposes, we will separately consider small incumbent LECs within this analysis and use the term "small incumbent LECs" to refer to any incumbent LECs that arguably might be defined by the SBA as "small business concerns."³⁸⁴

³⁸⁰ Small Business Act, 15 U.S.C. § 632 (1996).

³⁸¹ FCC, Telecommunications Industry Revenue: TRS Fund Worksheet Data, Figure 2 (Number of Carriers Paying Into the TRS Fund by Type of Carrier) (Nov. 1997) (*Telecommunications Industry Revenue*).

³⁸² *Id.*

³⁸³ 13 C.F.R. § 121.201, SIC codes 4812 and 4813. See Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual* (1987).

³⁸⁴ See 13 C.F.R. § 121.201, SIC code 4813. Since the time of the Commission's 1996 decision, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order*, 11 FCC Rcd 15499, 16144-45 (1996), 61 FR 45476 (August 29, 1996), the Commission has consistently addressed in its regulatory flexibility analyses the impact of its rules on such incumbent LECs.

223. Local Exchange Carriers. Neither the Commission nor the SBA has developed a definition for small LECs. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.³⁸⁵ According to the most recent *Telecommunications Industry Revenue* data, 1,371 carriers reported that they were engaged in the provision of local exchange services.³⁸⁶ We do not have data specifying the number of these carriers that are either dominant in their field of operations, are not independently owned and operated, or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that fewer than 1,371 providers of local exchange service are small entities or small incumbent LECs that may be affected by the proposed rules, if adopted.

224. Competitive LECs. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of competitive LECs. The closest applicable definition under the SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of competitive LECs nationwide is the data that we collect annually in connection with the TRS Worksheet. According the most recent *Telecommunications Industry Revenue* data, 109 companies reported that they were engaged in the provision of either competitive local exchange service or competitive access service, which are placed together in the data.³⁸⁷ We do not have information on the number of carriers that are not independently owned and operated, nor have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of competitive LECs that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are fewer than 109 small competitive LECs or competitive access providers.

³⁸⁵ *Id.*

³⁸⁶ *Telecommunications Industry Revenue*, Figure 2.

³⁸⁷ *Id.*

IV. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

225. The collocation and loops sections of the NPRM include proposed reporting requirements. With regard to collocation, the NPRM tentatively concludes that incumbent LECs should be required to list all equipment approved for use in a central office. The NPRM also tentatively concludes that, upon request from a competitive LEC, an incumbent LEC should submit to the requesting competitor a report indicating the incumbent LEC's available collocation space. The NPRM indicates that this report should: (1) specify the amount of collocation space available at each requested premises, the number of collocators, and any modifications in the use of the space since the last report; and (2) include measures that the incumbent LEC is taking to make additional space available for collocation. With regard to loops, the NPRM tentatively concludes that incumbent LECs should be required to share information about loops with new entrants.

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

226. The proposals in this NPRM seek to ensure that competing carriers, including small entity carriers, obtain access to inputs necessary to the provision of advanced services. The proposals seek to encourage the deployment of advanced services to all Americans, including those in remote, rural areas. To gather relevant information from all interested parties, including small business entities, the NPRM seeks comment on a wide array of issues and asks that commenters suggest alternatives to our proposals. We tentatively conclude that our proposals in the NPRM would impose minimum burdens on small entities. We seek comment on these proposals and the impact they may have on small entities.

VI. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposals in the NPRM

227. None.

August 6, 1998

Separate Statement of Commissioner Susan Ness

Re: Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-146; Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147.

In Section 706(a) of the Telecommunications Act, Congress directed the FCC to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans." This provision of the law is an explicit direction to anticipate and prepare for the future. Fulfilling the hopes and needs of citizens in the 21st Century will require widespread availability of much greater bandwidth than has traditionally been available through "plain old telephone service."

Today we begin the task of ascertaining the progress of, and prospects for, deployment of broadband capabilities throughout this country. We must ensure that high-bandwidth services roll out as quickly as the technology and the economics allow. Progress must not be impeded by inadequate competition or excessive regulation.

I hope to learn in this proceeding what we can do not only to promote the deployment of advanced telecommunications capability but also to facilitate consumer choice among broadband service suppliers. Although we have several pending petitions filed by incumbent telephone companies or their would-be competitors, we need to take a broader view. In the deployment of advanced telecommunications capability, multiple industry sectors can play a role.

Our notice of inquiry properly recognizes the multiplicity of potential bandwidth suppliers -- ILECs, CLECs, cable, wireless, and satellite companies, digital broadcasters, etc. The notice asks questions that will permit us to understand better how each industry sector can participate effectively in the bandwidth race, what advantages and disadvantages the various participants bring to the contest, and which barrier-reducing and competition-promoting steps the Commission can and should take. It also explores what special measures may be needed to meet the special needs of rural areas or to serve elementary and secondary schools and classrooms. I will welcome the development of a full record on these issues.

In our companion order and notice of proposed rulemaking, we demonstrate that we are prepared to do more than just ask questions. On certain issues, we have

already developed a considerable record, as a result of various pending petitions, and this enables us to render certain threshold decisions and to tender several concrete proposals.

As I see it, the key issue we address today is whether advanced telecommunications capability is subject to the competitive framework so carefully established by Congress in Sections 251 and 271 of the Communications Act. The answer is yes. I don't believe that Congress wrote detailed amendments to the Communications Act only to address voice, but not data, services. To the contrary, I believe a forward-looking and increasingly Internet-savvy Congress crafted a framework to promote competition and deregulation throughout all telecommunications markets as we enter a new chronological and technological millennium.

The Telecommunications Act is rooted in a strong belief in the power of competition, and in a recognition that the networks constructed over the past century by the incumbent LECs need to be "opened up" to enable competitive entry. What I like most about this order and notice of proposed rulemaking is that it both (1) requires incumbent LECs to open their networks in ways that allow multiple providers to offer high-bandwidth services and (2) provides a path for ILEC affiliates who are willing to compete on their merits, rather than on the basis of affiliation, to avoid regulation to the same degree as do their competitors. The goal is to expedite full and fair competition between a multiplicity of bandwidth providers, including ILEC affiliates, and thereby speed the availability of high-quality, reasonably priced, advanced telecommunications capability throughout the nation.

August 6, 1998

SEPARATE STATEMENT OF COMMISSIONER MICHAEL K. POWELL

Re: Memorandum Opinion and Order and Notice of Proposed Rulemaking, Deployment of Wireline Services Offering Advanced Telecommunications Capability et al. (CC Docket Nos. 98-147 et al.).

Re: Notice of Inquiry, Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996 (CC Docket No. 98-146).

In this combined statement, I write separately to explain the bases upon which I support this *Order/NPRM* and *Notice of Inquiry*.

I am very pleased to support the *Order/NPRM*. First, I think the item evidences our desire to devise ways that *all* interested firms can participate in the deployment of advanced services -- even incumbents that possess market power in certain communications markets. Make no mistake: as a strong proponent of vigorous antitrust enforcement, I believe that government must continue and intensify its efforts to contain and ameliorate the negative effects of such market power where warranted. We should, in particular, be sensitive to the power such companies have over truly essential facilities. We should not fail, however, to recognize that these companies also may be well-positioned to provide services of enormous value to consumers. Simply put, we cannot relegate BOCs or other big companies to the sidelines in the data services "race" unless we are prepared to deny the economy and consumers of the benefits of these companies' expertise and capital.

Second, and relatedly, I applaud the *Order/NPRM* for what it signals. In particular, it signals that the Commission is willing to allow incumbent LECs to provide some services through a separate affiliate on a relatively unencumbered basis, subject primarily to our enforcement mechanisms. I am committed, personally and firmly, to ensuring that this alternative, "deregulatory pathway" is available to the extent permitted under the law.

As I have noted on many occasions, communications policy historically has emphasized prospective, prophylactic regulation. Yet such regulation tends to stifle innovation and impede the beneficial operation of market forces. We should look to performance measurement and vigorous enforcement, more often than prospective regulation, as a means to protect the public against certain identifiable harms. This approach will avoid hindering companies from improving their existing offerings and entering new markets that lie outside their traditional regulatory boundaries, and will usher in a more effective and efficient regulatory process.

The separate affiliate approach, if carefully implemented, offers the prospect of allowing us to police potential anticompetitive conduct more easily. As such, I believe this approach takes

the Commission another step away from the traditional regulatory model toward one that is more consistent with a rapidly evolving competitive marketplace. I applaud the Common Carrier Bureau and my colleagues for taking this important, deregulatory step with respect to encouraging the development of competition in advanced services.

Third, I believe the separate affiliate pathway will serve as a good example of how the Commission can promote congruence between our policy goals and private firms' self-interest. There is an unfortunate tendency in communications policy to rely on policies that depend for their implementation upon a company or an industry acting against its self-interest. This reliance is entirely misplaced. Firms are economic actors, not moral beings. Indeed, the market depends for its effectiveness on firms pursuing their economic self-interest. We must accept these premises and craft policies consistent with them. I am committed to pursuing the idea of a separate affiliate pathway because I believe it constitutes an important move in this direction. As the *Order/NPRM* notes, the requirement that an incumbent treat its advanced services affiliate only as well as it treats its competitors should give the incumbent a greater incentive to improve its processes and provide unbundled elements and collocation space as quickly and cheaply as possible to all competitors.

I should add that I am very cognizant of some of the fears expressed regarding the separate affiliate approach, particularly fears about the continued soundness of universal service support and new entrants' fears that allowing incumbents to use separate affiliates will somehow allow incumbent LECs to leverage their dominance in the local telephone market to control the market for advanced services. These fears are not unfounded. With respect to universal service, however, I would point out that it is my understanding that an incumbent's advanced services affiliate would have the same obligation to contribute to universal service as any other telecommunications carrier. With respect to new entrants' fears, I would urge us to consider the alternative to establishing a separate affiliate pathway. The dynamism and demand in the advanced services market is such that incumbents that do not provide these services through separate affiliates will surely do so on a highly integrated basis. If that happens, our ability to enforce interconnection, unbundling and other requirements with respect to advanced services will be as difficult and, I fear, as uphill a battle, as our enforcement of these requirements for traditional circuit-switched services. Thus, I submit that even if the separate affiliate approach may involve risks -- which I am committed to addressing -- the alternative may not put us in any better position to promote competition in advanced services.

I also support the adoption of this *Notice of Inquiry*. Encouraging deployment of advanced telecommunications services promises both to challenge our conventional understanding of technology within the existing statutory and regulatory framework and to usher in exciting new communications capabilities for average Americans. The trick is getting from here to there; that is, we must overcome the various technological, legal and economic impediments to deployment in order to let consumers and organizations appreciate fully the possibilities advanced communications services offer. Indeed, section 706 requires not only that these services be deployed, but that the Commission and each state Commission encourage such deployment on a

reasonable and timely basis to all Americans. Moreover, we must do so consistent with the deregulatory, market emphasis of the Act.

I invite parties commenting on the *Notice* to help us conduct a thorough review of where we have been, where we are, and where we need to be in order to encourage the deployment of advanced services. I hope that, in using this information, we will be sensitive to the fact that requiring certain firms to provide access to their facilities or services to other firms or even to end users may have some negative consequences. In particular, I think we should search for ways to promote innovation and competition in the provision of "last mile" transmission to homes and businesses. While mandating access is a useful tool and can bring about short-term gains in retail competition, it also may undermine incentives for developing new ways to circumvent the power of incumbents over distribution.

Both the *Order/NPRM* and the *Notice of Inquiry* offer evidence that the Commission understands that neither competition nor innovation is the product of the well-meaning regulatory policies we adopt, even if our policies create the appearance of competition in the short-term; rather, competition and innovation are the result of self-interested actors struggling in the marketplace to provide consumers with new and better products and services. I firmly believe that our policies should continue to take account of this fact. I believe we also must focus more on the longer-term future in carrying out Congress' instruction that we encourage the deployment of advanced communications. I wish to underscore my personal commitment to following this instruction at the same time we seek to promote the deregulatory and pro-competitive goals of the Act.

I praise the Bureau's efforts, as well as those of my colleagues, on this critical and challenging subject. And I look forward to working with everyone at the Commission, in the States and in Congress to help make our effort to encourage the deployment of advanced communications a success.

August 6, 1998

Statement of Commissioner Gloria Tristani

Re: In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, Memorandum Opinion and Order and Notice of Proposed Rulemaking, CC Docket No. 98-147

I support today's action to provide incentives for all wireline carriers to deploy high bandwidth services more quickly than they would otherwise. That is what Congress directed us to do in section 706, and I hope the proceedings we open today will allow us to fulfill this obligation expeditiously.

I wish to indicate my preliminary support for the basic idea of separate affiliates as a way for incumbent LECs to provide high speed data service with minimal regulation. The separate affiliate model would properly align incentives for incumbent LECs to take pro-competitive, pro-consumer, actions in the area of advanced services. I am well aware that separate affiliates impose costs on incumbent LECs, and that absent those costs, incumbent LECs could be more efficient providers of advanced data service. But at what price to competition? If we have learned one lesson in the 30 months since the Act passed, it is that pro-competitive regulations work best when incumbents have an incentive to make them work. Using separate affiliates would encourage incumbent LECs to improve their ordering and provisioning methods for competitors because their affiliates won't tap into the lucrative high bandwidth market unless they can obtain critical inputs to its product, such as efficient collocation and DSL-capable loops, in a timely and efficient fashion. In return, incumbent LECs' affiliates would be freed of the unbundling obligations for data equipment that will apply if DSL service is provided on an integrated basis.

Section 706 makes states and the FCC partners in encouraging carriers to deploy advanced telecommunications capabilities. It is clear that states will play a major role in this effort, just as Congress intended. The FCC can do its part by establishing, in close consultation with states, a pro-competitive framework for data services that will bring consumers the bandwidth services they want. State commissions, in turn, set the rates competitors pay for DSL-capable loops and collocation. Without fair and efficient access to these building blocks, DSL service will remain a niche service rather than a mass market phenomenon. In the coming months, the FCC will do its best to write effective loop and collocation rules. After that, it will be up to state commissions to make high bandwidth services a reality for their citizens.

Since the rapid deployment of advanced services will be greatly affected by both federal and state policies, it is important that the Commission work closely with state commissions in designing an advanced services framework that serves our needs and their needs. My recent

participation in NARUC's summer meeting afforded me the opportunity to hear first hand the views of state commissioners. What I learned is that state commissions have not had a full opportunity to evaluate the idea of separate affiliates and to advise us of their views. Our decision to adopt only a tentative framework for separate affiliates reflects this Commission's desire to work cooperatively with state commissions in this critical area of communications policy. In response to the NPRM adopted today, I expect state commissions will furnish us with valuable advice and guidance. I hope the specific proposals in the NPRM will encourage focused discussion on the key issues surrounding separate affiliates and allow us to move forward expeditiously with final rules.

The Order portion of today's item rejects Bell Company requests for wholesale waivers of section 271. I believe that is the correct decision as a matter of policy. Some say the elegant design of section 271 has been weakened because increased competition has made the long distance market less attractive than it once was for Bell Companies, and hence, no longer a sufficient incentive to comply with Congress's plan for local competition. Assuming for the moment that is true, it may well be that the booming market for data communications, including interLATA connections, will pick up where standard long distance has left off. If that is correct, this Commission's denial of wholesale LATA relief is entirely consistent with Congress's vision for section 271.

That does not mean all LATA relief for Bell Companies should be off the table. At least in the near term, Bell Companies may well be the most likely supplier of advanced services in parts of their territories. I think there are potentially significant actions we could take regarding LATA modifications for Bell Companies to reach under-served parts of their territories. Targeted LATA modifications could allow Bell Companies to configure their data networks in ways that makes advanced service feasible in areas that otherwise would be ignored by the free market.

I also wish to register my particular interest in two matters related to separate affiliates for data services. The first is my interest in seeing that Internet service providers unaffiliated with incumbent LECs can compete fairly in the world of DSL-delivered Internet access service with ISPs affiliated with incumbent LECs. An incumbent LEC's data affiliate presumably has an incentive to favor its affiliated ISP over unaffiliated ISPs. I will be particularly interested in parties' views on whether the creation of advanced services affiliates is truly a risk to the high-speed Internet access market, or whether this danger is too speculative for immediate Commission action.

The second issue is collocation space at incumbent LECs' remote terminals. Collocation of all types is a threshold issue for competitors to provide DSL service. No collocation means no competition. And with collocation space apparently quite limited not only in many central offices but also in remote terminals, I will be particularly interested in learning how we can level the playing field regarding access to collocation space. It is important to me that, beginning today, there be no opportunity for incumbent LECs to foreclose DSL competition in certain areas by gaming the collocation process.

Finally, I would acknowledge the efforts of the incumbent and competitive local carriers in pressing their case at the FCC. They understood better than us that telecommunications technology was advancing at light speed, and that our regulations needed to better accommodate carriers' needs in responding to the explosive demand for high speed data communications. Rather than waiting for the FCC to open its inquiry under section 706, the carriers sought faster resolution of their concerns through petitions relating to sections 251 and 271 of the 1996 Act. Today's actions by the Commission moves us closer to policies that reflect what consumers are demanding and what carriers want to provide.

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