

- Workshop agendas.
- Discussion of exhibits.
- Panelists' information.
- Photos and biographies of speakers/ special guests.

• Facility layout and list of services available.

- Identify designated smoking areas.
- Special events.
- Message center information.
- Area map.
- Other pertinent material.

Note: Use of agency seal and conference logo may be considered for the conference package. However, the decision to use such items is strictly the judgment of agency officials.

Miscellaneous

Suggested Room Coordination

Plan ahead to setup:

- Staff room to handle core of activities;
- Meal functions;
- Exhibit rooms, and
- Meeting rooms—

Theatre or auditorium for lectures; Facing speaker when note taking is important; Square or U-shaped style for discussion/ interaction; and Banquet or roundtable for discussion.

Keeping in Touch

Plan for:

- A message center to be set up in a central location for special announcements and telephone messages.
- How to reach whomever at all times use beepers and walkie-talkies.
- Clear identification of conference staff.
- Accommodation of physically impaired attendees with sign language or other special needs.

Mementos

Appropriations are not available to purchase memento items for distribution to conference attendees as a remembrance of an event. Two notable exceptions to the memento or gift prohibition are under training and awards. Work closely with appropriate agency officials to make final determinations.

Resources

The following resources may be of assistance in planning a conference:

- An agency contracting officer;
- Travel Management Centers;
- Interagency Travel Management Committee members (a forum of agency travel policy managers—for member identification, contact your agency's administrative or financial office);
- State chambers of Commerce or Visitors Bureaus;
- Local chapters of the Society of Government Meeting Professionals; and
- Private industry conference planners.

Conclusion

Process:

- Questionnaires, which may provide invaluable feedback about the success of your conference.
- Training certificates.

- Thank you notes to participants, facility personnel, speakers, printers, photographers, and other special contributors.

• Summary to acknowledge the accomplishments, and to convey the information discussed to a wider audience, may be an excellent promotional tool.

Note to Appendix E: Use of pronouns "we", "you", and their variants throughout this appendix refers to the agency.

Dated: December 27, 1999.

David J. Barram,

Administrator of General Services.

[FR Doc. 00-440 Filed 1-7-00; 8:45 am]

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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 51

[CC Dockets No. 98-147 and 96-98; FCC 99-355]

Deployment of Wireline Services Offering Advanced Telecommunications Capability

AGENCY: Federal Communications Commission

ACTION: Final rule

SUMMARY: This document adopts measures to promote the availability of competitive broadband xDSL-based services, especially to residential and small business customers. This document amends the Commission's unbundling rules to require incumbent LECs to provide unbundled access to a new network element, the high frequency portion of the local loop. This will enable competitive LECs to compete with incumbent LECs to provide to consumers xDSL-based services through telephone lines that the competitive LECs can share with incumbent LECs. In addition, the document adopts spectrum management policies and rules to facilitate the competitive deployment of advanced services. These rules will significantly benefit the rapid and efficient deployment of xDSL-based technologies.

DATES: Effective February 9, 2000.

FOR FURTHER INFORMATION CONTACT:

Staci Pies, (202) 418-1580. For further information concerning the information collection contained in this document, contact Les Smith, Federal Communications Commission, Room 1A-804, 445 12th Street, S.W., Washington, D.C. 20554, or via Internet at lesmith@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC

Docket 96-98, adopted on November 18, 1999, and released on December 9, 1999. The complete text of the order is available for inspection and copying during normal business hours in the FCC Reference Information Center, Courtyard Level, 445 12th Street S.W., Washington, D.C., and also may be purchased from the Commission's copy contractor, International Transcription Services (ITS, Inc.), CY-B4000, 445 12th Street, S.W., Washington, D.C. It is also available via the Internet at the Commission's home page, http://www.fcc.gov/Common_Carrier/Orders/1999/fcc99355.doc.

Synopsis of the Third Report and Order and Fourth Report and Order

I. Introduction

1. The Commission adopts a Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98, (collectively "Third R&O") to promote the availability of competitive broadband xDSL-based services, especially to residential and small business customers. Specifically, the Commission amends the unbundling rules to require incumbent LECs to provide unbundled access to a new network element, the high frequency portion of the local loop. This will enable competitive LECs to compete with incumbent LECs to provide to consumers xDSL-based services through telephone lines that the competitive LECs can share with incumbent LECs. The provision of xDSL-based service by a competitive LEC and voiceband service by an incumbent LEC on the same loop is frequently called "line sharing."

2. In addition, the Commission adopts rules in this Order that apply to spectrum compatibility and management. These rules will significantly benefit the rapid and efficient deployment of xDSL-based technologies. Specifically, the Commission seeks to encourage the voluntary development of industry standards while limiting the ability of any one class of carriers to impose unilateral and potentially anti-competitive spectrum management or compatibility rules on other xDSL providers. The spectrum policies adopted in this Order will ensure the compatibility of technologies and minimize the risk of harmful spectrum interference among transmission services. As such, these policies will ensure that American consumers will not face undue delay in receiving the benefits of technological innovation.

II. Line Sharing

3. The Third R&O concludes that the Commission has authority to require incumbent LECs to provide unbundled access to the high frequency spectrum of a local loop pursuant to our authority to identify a minimum list of network elements that must be unbundled on a nationwide basis. Section 251(c)(3) imposes a duty on all incumbent LECs to provide to competitors access to network elements on an unbundled basis. The standard for unbundling is set out in section 251(d)(2). Section 251(d)(2) provides that, in determining which network elements should be unbundled under section 251(c)(3), the Commission shall consider, "at a minimum, whether—(A) access to such network elements as are proprietary in nature is necessary; and (B) the failure to provide access to such network element would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer." Based on this language the Third R&O concludes that the high frequency portion of the loop is a network element that must be unbundled pursuant to section 251(c)(3) and section 251(d)(2).

4. Line sharing generally describes the ability of two different service providers to offer two services over the same line, with each provider employing different frequencies to transport voice or data over that line. Section 3(29) of the Act defines a network element as "a facility or equipment used in the provision of telecommunications services" including "features, functions, and capabilities, that are provided by means of such facility or equipment." The frequencies above those used for analog voice services on any loop are a capability of that loop. Therefore, those otherwise unused frequencies that can be used for xDSL or other applications meet the definition of a "network element."

5. Specifically, §§ 51.307(d) and 51.309(c) of the Commission's rules address the requesting carrier's right to loop access. These rules provide, respectively, that an incumbent LEC must provide competitors with "access to the facility or functionality of a requested network element separate from access to the facility or functionality of other network elements." The rules also state that a requesting carrier is "entitled to exclusive use" of an "unbundled network facility." Consequently, although the Third R&O concludes that to the extent section 251(d) is satisfied requesting carriers may access unbundled loop functionalities, such as non-voiceband transmission

frequencies, separate from other loop functions, they are also "entitled," at their option, to exclusive use of the entire unbundled loop facility.

6. *High Frequency Loop Spectrum.* The Third R&O concludes that access to the high frequency spectrum of a local loop meets the statutory definition of a network element and satisfies the requirements of sections 251(d)(2) and (c)(3). It is technically feasible for an incumbent LEC to provide a competitive LEC with access to the high frequency portion of the local loop as an unbundled network element. An incumbent LEC's failure to provide access impairs the ability of a competitive LEC to offer, on a competitive basis, certain forms of xDSL-based service that are capable of line sharing with voice services. The Third R&O finds that lack of access to the high frequency portion of the local loop would materially raise competitive LECs' cost of providing xDSL-based service to residential and small business users, delaying broad facilities-based market entry, and materially limiting the scope and quality of competitors' service offerings. It finds that access to the high frequency portion of the loop encourages the deployment of advanced telecommunications capability to all Americans as mandated by section 706 of the 1996 Act. Because some residential and small business markets may lack the economic characteristics that would support competitive entry in the absence of access to the high frequency spectrum of a local loop, it is clear that spectrum unbundling is crucial for the deployment of broadband services to the mass consumer market.

7. The Third R&O defines the high frequency spectrum network element to be the frequency range above the voiceband on a copper loop facility used to carry analog circuit-switched voiceband transmissions. The Third R&O does not mandate a particular technological approach to the use of a line for multiple services. Line sharing relies on rapidly evolving technology and our requirement that incumbent LECs provide the high frequency spectrum of a local loop as an unbundled network element should stimulate technological innovation. The Third R&O does not set a specific dividing line between the low frequency channel and a high frequency channel on the loop.

8. The Third R&O supports the use of any transmission technology that is presumed acceptable for shared-line deployment with analog voice service according to the criteria already identified in the First R&O 14 FR Rcd

4761 (1999), 63 FR 44220 August 18, 1998, and codified in the Third R&O.

9. The Third R&O finds that there are no proprietary concerns associated with unbundled access to the high frequency spectrum of the local loop. It finds that there are no copyright, patent, or trade secrecy implications to unbundled access to the high frequency spectrum UNE. Carriers do not generally rely upon loop spectrum to differentiate themselves from their competitors. Thus, the high frequency spectrum is not proprietary.

10. The Third R&O concludes that a lack of access to high frequency spectrum of a local loop impairs a competitive carrier's ability to offer certain forms of xDSL-based service. Just as the loop itself remains a facility available only from an incumbent LEC, so too is a competitor seeking to offer certain xDSL-based services impaired if it does not have access to the high frequency spectrum of the local loop available from an incumbent LEC.

11. Section 251 requires incumbent LECs to provide unbundled access to a network element where lack of access impairs the ability of the requesting carrier to provide the services that it seeks to offer. The Third R&O finds that most xDSL lines have been deployed to residential or small business consumers, and incumbent LECs provide service on the vast majority of these lines where their xDSL-based service shares the line with their voice service. Incumbent LECs generally deploy forms of xDSL-based services that can coexist with voice service on a single line. This enables incumbent LECs to utilize the full capacity of the copper local loop to efficiently provide both voice and data service to a customer. Competitive LECs seeking to deploy xDSL-based service to customers subscribing to the incumbent LEC's voice telephone service cannot deploy their xDSL with the same efficiency or at the same cost. Incumbent LECs currently do not permit competitive LECs to access the high frequency portion of the loop to provide xDSL-based services, even though the incumbent LECs utilize the high frequency portion of the loop to deploy their own services. This situation materially diminishes the competitive LEC's ability to provide the particular type of xDSL-based service that it seeks to offer.

12. In contrast, the Third R&O finds that competitors are not impaired where they seek to deploy those versions of xDSL-based services that require a dedicated local loop, such as SDSL or HDSL, because they can procure unbundled loops to deploy such service. For larger business users, competitive

and incumbent LECs have to date maintained a degree of competitive parity, acquiring similar customer volumes. The larger business market tends to favor robust, high-capacity, symmetrical forms of xDSL, such as SDSL. These types of xDSL are not compatible with voice service provided over the same line in a line sharing arrangement, because they utilize the whole loop frequency spectrum. Thus, both incumbent and competitive LECs must deploy these forms of xDSL over dedicated loops. Comparable levels of market penetration between incumbent and competitive LECs indicates that competitive LECs are not impaired where they can procure unbundled loops to provide these services.

13. The Third R&O concludes that carriers seeking to deploy voice-compatible xDSL-based services cannot self-provision loops. The Third R&O also concludes purchasing or self-provisioning a second loop is not possible as a practical, operational or economic matter. First, second loops are not ubiquitously available. Refusing to unbundle the high frequency portion of the loop in this situation forecloses competitive access to the segment of consumers that lack additional copper pairs to their homes or small businesses. Where a customer premises is only addressed by one copper loop, or where end users have exhausted the facilities that serve them by installing multiple phone, modem, and fax lines, end users will have no additional facilities available at their premises which a competitive xDSL service provider could use to provide service. In those situations, competitive xDSL service providers are precluded from providing the services they seek to offer, and consumers are deprived of the benefits of competition. This is particularly a problem in rural areas, where spare copper facilities are less common. Without a requirement that the incumbent LEC must provide competitors with access to the high frequency portion of these loops, only the voice service provider that already controls the entire loop can provide xDSL-based service to that customer. In virtually all cases, this provider will be the incumbent LEC. Thus, lack of access to the high frequency portion of the loop reduces the efficient use of existing loop plant and diminishes the scope of potential customers to whom competitive LECs can market xDSL-based service, thereby limiting the competitive choices available to consumers for whom additional copper loops are not available. In addition, such lack of access can accelerate the

depletion of copper loops in entire communities, necessitating inefficient capital expenditures that will increase costs imposed on consumers and competitors alike. Even if there are spare pairs in the "drop" to a home or business, there are not corresponding pairs in the feeder plant connecting the neighborhood to the central office.

14. Second, the Third R&O concludes that if competitive LECs were to purchase or self-provision a second unbundled loop to provide voice-compatible xDSL-based services, their provisioning of service would be materially more costly, and coincidentally less efficient, than purchasing the unbundled high-frequency portion of the loop. The inability of competing carriers to provide xDSL-based services over the same loop facilities that the incumbents use to provide local exchange service makes the provision of competitive xDSL-based services to customers that want a single line for both voice and data applications—typically small businesses and mass market residential consumers—not just marginally more expensive, but so prohibitively expensive that competitive LECs will not be able to provide such services on a sustained economic basis. Accordingly, a requesting carrier providing voice-compatible xDSL-based services is impaired without access to the unbundled high frequency portion of the loop.

15. Specifically, incumbent LECs refuse to permit competitive LECs to deploy xDSL-based service to their customers on the same customer loops through which incumbents provide voice services, although incumbents regularly deploy both services on the same loop. As a result, a competitive LEC providing xDSL to a customer subscribing to an incumbent LEC's voice service must provide a second customer loop for the customer's xDSL service, effectively doubling the line access charges for that customer's voice and xDSL services, and providing a distinct cost advantage to incumbent LEC-provided xDSL products. The Third R&O finds that the combined collocation and unbundled loop costs, exclusive of incremental and fixed network, equipment, and overhead costs, incurred by a competitive LEC seeking to deploy xDSL service can exceed 100% of the retail price for the comparable shared-line xDSL that the incumbent offers to the same customer that the competitor is vying for. It also finds that incumbents charge requesting carriers almost as much or more, on a monthly basis, for an unbundled, conditioned loop, as the incumbent

charges its retail customers for xDSL service. This price discrepancy between what an incumbent can charge its customer for its own shared-line xDSL and what a competitor must pay to the incumbent just to gain access to that customer materially diminishes the ability of the competitive carrier to offer voice-compatible xDSL-based services in competition with incumbent LEC.

16. The Third R&O finds that it is not economical for competitive LECs to self-provision or purchase the entire loop as a second line just to obtain access to the high frequency portion of the loop. Incumbent LECs generally allocate virtually all loop costs to their voice services, then deploy a voice-compatible xDSL service such as ADSL on the same loop, allocating little or no incremental loop costs to the new resulting service. In contrast, when the competitive LEC procures a second loop, it must pay the incumbent LEC the full price of that unbundled loop as an unbundled network element. The cost of that additional loop often accounts for 30 to 50% of the competitor's total cost of providing service. Thus, the incumbent LEC's voice-compatible xDSL service enjoys substantial cost advantages over a competitive LEC's xDSL offerings.

17. Third, the Order finds that a competitive carrier faces a competitive disadvantage in providing xDSL over a second line when competing against the incumbent's single line offering. The incumbent is able to market its own service to customers as a quick and convenient add-on service, while the competitive carrier must persuade the customer to purchase a second line. In comparison, consumers that desire to obtain xDSL service from competitive LECs must encounter complications and expenses, including the need to arrange for a technician to install service, that do not arise if they procure the exact same service from the incumbent LEC. Providing competitive LECs with access to the high frequency portion of the loop would remove that additional burden from consumers that prefer to obtain xDSL service from competitors.

18. The Third R&O is not inconsistent with the Commission's decision to decline to unbundle packet switching. Self-provisioning switches is vastly easier, less expensive, less time consuming, less complicated, and less risky than self-provisioning the outside plant that constitutes the ubiquitous loop network. There can be little dispute that requesting carriers have not duplicated the incumbent LEC's ubiquitous loop plant and generally are not providing service with competitive loop facilities.

19. The Third R&O concludes that if competitive LECs were to provide voice service in addition to xDSL-based service, they would be impaired in their ability to provide the data services they seek to offer. First, concluding that competitive LECs should be able to provide voice service on the customer's first line would impose on requesting carriers all of the cost and operational issues associated with providing circuit-switched voice services. To the extent the competitive carrier invests in its own switching facilities, it would face cost and operational impairments associated with collocation and the coordinated cutover process. Competitive carriers providing voice service would also incur the costs of providing E911 service and number portability.

20. Furthermore, the Third R&O finds that requiring competitive LECs to provide voice services could require large investments in circuit switching network architectures that may have little to do with a requesting carrier's intention to offer advanced data services. Investments in circuit switched networks may only be justified by carriers that have attained sufficient scale and scope economies to justify deploying large-scale circuit switched networks. For other entrants, requiring this investment diverts financial resources and management focus away from competitive LECs' ability to offer advanced services and frustrates a requesting carrier's plan to migrate telecommunication services from circuit switched to packet switched networks. Frustrating the development of packet switched networks capable of bringing advanced telecommunications capability to all Americans is wholly inconsistent with the goals of section 706 of the 1996 Act and the deployment of efficient networks.

21. The Third R&O finds that despite its ability to purchase transmission facilities from the incumbent to provide voice service, a competitor is still impaired if it must provide analog voice service in order to enter the market for voice-compatible xDSL services. There are additional costs associated with being a provider of voice service than the cost of the circuit switches. In particular, a competitive carrier would need to develop marketing, billing, and customer care infrastructure designed to service the needs of its voice customers. In addition, competitive LECs seeking to enter the traditional voice services market must deploy sales and marketing forces, and invest in creating a recognizable brand. To compete against incumbent LECs that have a long history providing voice services, competitors

must overcome the substantial goodwill, experience and market power of the incumbent LECs. These factors make it a considerable challenge for competitive LECs to motivate a consumer to adopt a new local exchange provider that offers much the same service that the consumer already receives from the incumbent LEC.

22. The Third R&O finds that competitive LECs would be impaired even if they attempted to provide multi-service offerings including voice-compatible xDSL services. In addition, it is likely that competitive market entry would take longer to accomplish because competitors would need to develop all of these additional capabilities. To be sure, competitive LECs may well decide to diversify their offerings at some point in the future. But such action should occur in response to marketplace forces, not regulatory fiat. To conclude otherwise would be to ignore the statutory directive in section 251(d)(2) that requires the Commission to consider whether a requesting carrier is impaired "to provide the services that it seeks to offer."

23. The Third R&O's unbundling analysis acknowledges that requesting carriers may address the impairment they face in the absence of line sharing by capturing their own efficiencies and offering integrated or innovative product offerings to customers. For example, in the absence of line sharing, requesting carriers could offer multiple services, such as voice and data, over a single loop to capture the additional revenues associated with local and long distance voice services. Alternatively, requesting carriers could offer innovative bundles of services to customers to counter an incumbent LEC who provides voice and data services on a single loop. The unbundling analysis, however, favors an analytical approach that considers the totality of the circumstances a requesting carrier will face, rather than a specific business case analysis, to determine whether lack of access to particular network elements materially diminishes a requesting carrier's ability to provide the services it seeks to offer. The Third R&O does not rely upon the presence of a particular innovative business plan as a response to whether a requesting carrier is impaired because of the variety and difficulty of predicting the success of such a plan. The Third R&O concludes that a requesting carrier's ability to spread the costs of a loop between multiple services fully addresses a requesting carrier's impairment without access to line sharing.

24. The Third R&O concludes that requesting carriers are not presently

obtaining the high frequency portion of the loop from third-party sources rather than from an incumbent LEC under the section 251(c) unbundling obligation.

25. The Third R&O states that the Commission will reexamine the national list of network elements that are subject to the unbundling obligations of the Act every three years.

26. The Third R&O concludes that there are no *bona fide* issues of technical feasibility with regard to line sharing. The local loop can support transmissions on a wide range of frequencies. Analog voice service occurs on the lower "voiceband" frequency range, at least between 300 Hertz and 3,000 Hertz, and possibly up to 3,400 Hertz depending on equipment and facilities. Some forms of xDSL, such as ADSL use a higher frequency range, generally above 20,000 Hertz, that does not interfere with voiceband transmissions. xDSL services that do not use the voiceband frequency range can "share" a copper loop with voiceband services, such as POTS, without impairing the performance of either service. Therefore, the customer purchasing the xDSL service may continue to receive analog circuit-switched POTS from the incumbent LEC.

27. xDSL service can be added to a local loop that is being used for "traditional" voice service by deploying special equipment at each end of the subscribing customer's local loop. Specifically, passive signal filters, or "splitters," are installed at each end of the customer's loop to accomplish this operation. One splitter is installed at the customer's premises, and another at the central office or remote terminal. A splitter bifurcates the digital and voiceband signals concurrently traversing the local loop, directing the voiceband signals through a pair of copper wires to the Class 5 switch, and directing the digital traffic through another pair of copper wires to a DSLAM attached to the packet-switched network.

28. The Third R&O finds that incumbents that provide their own xDSL services on the same line that they are providing analog voice service are utilizing the single copper pair in the same manner as if the incumbent's voice service shared the line with a competitive carrier's data service. Accordingly, the Third R&O requires incumbent LECs to provide access to the high frequency portion of the loop based on the criteria for presumed acceptability for deployment on shared lines. By requiring conformance with this criteria, the Third R&O ensures that competitive LECs utilize technology that

does not interfere with analog voice frequencies.

29. *Voice-Compatible Forms of xDSL.* The Third R&O requires incumbent LECs to provide unbundled access to the high frequency portion of the loop to any carrier that seeks to deploy any version of xDSL that is presumed to be acceptable for shared-line deployment in accordance with Commission rules. xDSL technologies that meet this presumption include ADSL, as well as Rate-Adaptive DSL and Multiple Virtual Lines (MVL) transmission systems, all of which reserve the voiceband frequency range for non-DSL traffic. Among these, ADSL is the most widely deployed version of xDSL that is currently presumed acceptable for deployment on a shared line. Because line sharing as contemplated in the Third R&O can occur only on lines that carry traditional analog voiceband service, lines that are not used for these services could not be shared.

30. *Incumbent Remains the Voice Carrier.* The Third R&O does not require incumbents to provide unbundled access to carriers seeking just the data portion of an otherwise unoccupied loop (often referred to as a "dry loop.") In the event that the customer terminates its incumbent LEC provided voice service, for whatever reason, the competitive data LEC is required to purchase the full stand-alone loop network element if it wishes to continue providing xDSL service. Similarly, incumbent carriers are not required to provide line sharing to requesting carriers that are purchasing a combination of network elements known as the platform. In that circumstance, the incumbent no longer is the voice provider to the customer.

31. *Single Requesting Carrier, One Customer Per Loop.* The Third R&O defines the unbundling obligations to permit only a single competitor to share the line with the incumbent. Moreover, the Third R&O does not establish multiple customer line sharing requirements.

32. *Control of the Loop and Splitter Functionality.* The Third R&O concludes that, subject to certain obligations, incumbent LECs may maintain control over the loop and splitter equipment and functions. Incumbent LEC seeking to maintain control of the splitter must promptly accommodate, in response to a competitive LEC request to do so, any line sharing technology that meets the deployment criteria established in this proceeding. It finds that incumbent LECs will not delay their actions to procure the necessary equipment, and will inform the requesting carrier of

what action it takes, and when the equipment can be installed. It should take no longer to obtain and install such equipment in response to a competitive LEC's request than it would take the incumbent to procure and install the same equipment for itself. Any failure to make this accommodation in a reasonably prompt manner would constitute a violation of the incumbent LEC's section 251 unbundling obligations.

33. The Third R&O finds that if a state commission finds that an incumbent has unreasonably refused to accommodate the competitive LEC's preferred technology or requested equipment upgrades in a prompt fashion, the state commission may authorize the competitive LEC to purchase and collocate its own splitter, whether or not incorporated into the DSLAM. The incumbent LEC would then receive the voiceband signal by connecting to the competitive LEC's collocated splitter. Alternatively, the state commission may authorize the competitive LEC to purchase a splitter that complies with the deployment standards we adopt in this Order, and transfer that splitter to the incumbent. Where the competitive LEC obtains some degree of control over the splitter, the state commission should ensure that the integrity of the incumbent LEC's voice transmission's passing through the competitive LEC's equipment and do not interfere with the performance of the incumbent LEC's central office and network equipment.

34. *Line Sharing Does Not Impede Incumbent LECs' Ability to Manage the Loop Plant.* The findings in the Third R&O do not restrain the incumbent LEC, in the course of normal loop plant maintenance and improvement activities, from migrating customers from copper to fiber loop facilities. Where such activity takes place, however, the competitor may be required to forego access to only the high frequency portion of the loop serving that customer, and may have to obtain access to the entire unbundled copper loop or find another alternative to maintain service.

35. The Third R&O concludes that, except in specific circumstances, incumbent LECs must condition loops to enable requesting carriers to provide xDSL-based services on the same loops the incumbent is providing analog voice service, regardless of loop length. Specifically, the incumbent LEC is required to remove bridge taps, filters, range extenders, and similar devices where a competitive carrier requests unbundled access to the high frequency portion of the local loop. Incumbent LECs are required to condition loops of

any length for which competing carriers have requested line sharing, unless conditioning of that loop will significantly degrade the incumbent's voice service as described below. It concludes, however, that if conditioning a particular loop for shared-line xDSL will significantly degrade that customer's analog voice service, incumbent LECs are not required to condition that loop for shared-line xDSL.

36. The Third R&O requires that the incumbent refusing a competitive carrier's request to condition a loop make an affirmative showing to the relevant state commission that conditioning the specific loop in question will significantly degrade voiceband services. The incumbent LEC must also show that there is no adjacent or alternative loop available that can be conditioned or to which the customer's service can be moved to enable line sharing.

37. The Third R&O concludes that incumbent LECs should be able to charge for conditioning loops when competitors request the high frequency portion of the loop. The conditioning charges for shared lines, however, should never exceed the charges incumbent LECs are permitted to recover for similar conditioning on stand-alone loops for xDSL services. Accordingly, the Third R&O concludes that if the incumbent LEC seeks compensation from the requesting carrier for line conditioning activities, or such activity will cause substantial loop provisioning delays, the requesting carrier has the option of refusing, in whole, or in part, to have the line conditioned. A requesting carrier refusing some or all aspects of line conditioning will not, however, lose its right of access to the high frequency portion of the loop.

38. The Third R&O concludes that incumbents must provide unbundled access to the high frequency portion of the loop at the remote terminal as well as the central office. It applies a rebuttable presumption that for carriers requesting unbundled access to the high frequency portion of the loop, the subloop can be unbundled at any accessible terminal in the outside loop plant. Where the parties are unable to forge an agreement to facilitate line sharing where the customer is served by a loop passing through a DLC, the incumbent carrier bears the burden of demonstrating to the relevant state commission, in the course of a section 252 proceeding, that it is not technically feasible to unbundle the subloop to provide access to the high frequency portion of the loop.

39. The Third R&O concludes that incumbent LECs have the capability to accommodate the provisioning of the high frequency portion of the loop as a network element. Where incumbent LECs provide shared-loop xDSL services to their voice customers, either through their own subsidiaries or in cooperation with an unaffiliated ISP, the incumbent must resolve many of the same problems that they claim stand in the way of providing competitors with access to the high frequency portion of the loop.

40. *Service Ordering.* The Third R&O concludes that the type of effort required for incumbent LECs to establish appropriate line sharing ordering practices is incremental in nature, and does not require a major development initiative. The OSS capabilities required for incumbent LEC provision of shared-line xDSL services are substantially similar to the OSS capabilities required for competitive LEC provision of shared-line xDSL services, and could be easily adapted to support unbundled access to the high frequency portion of the loop network element.

41. The record shows that while changes to the existing fields on the UNE order form/electronic order formats may appropriately involve the OBF for coordination and standardization, incumbents already have made interim modifications to accommodate their own ADSL products. Thus, we conclude that the interim arrangements that the incumbents use for themselves can be extended to competitive carriers as well.

42. A key ordering system function is establishing the records necessary for customer service, trouble management, billing, and inventory functions. The Third R&O observes that the incumbent LECs already use two circuit or service numbers to track their own shared-line xDSL services: (1) the existing telephone number to identify the voice service; and (2) a circuit number to identify the xDSL service sharing the line. It concludes that incumbent LECs can extend this practice to accommodate two-carrier shared line access to the high frequency portion of the loop network element. Specifically, incumbent LECs can identify a line shared with a competitive LEC by cross-referencing a circuit number with the POTS telephone number. Possible methods for establishing this cross-reference include embedding the telephone number in the incumbent-assigned circuit number or the customer-assigned circuit number, adding it as a cross-reference to the existing account number, making a

notation in the remarks field, or by establishing a new field and field identifier (FID). An incumbent LEC could create two internal orders from a competitive LEC's order for access to the high frequency portion of the local loop submitted using the incumbent's UNE ordering process. In that case, one order would be used to establish the requesting carrier's access to the high frequency loop spectrum, and the other would be a record-type order to add line sharing indicators to the customer's analog voice service account and records. This system resembles those used for "from" and "to" orders to accommodate customers that change their address but want to retain the same telephone number, as well as the system that incumbents employ to respond to a customer's change to a competitive local service provider.

43. *Provisioning.* The Third R&O does not require incumbents to provide access to the high frequency portion of the loop for multiple competitive carriers. It finds that incumbents will use much the same inventory functionality to inventory unbundled access to the high frequency portion of the loop whether for the purposes of providing access to that network element to their competitors, or for themselves. Otherwise, incumbents would have to undertake substantial rebuilds to accommodate their own shared-line xDSL service offerings.

44. The Third R&O concludes that the capabilities already exist in the Loop Facilities and Assignment Control System (LFACS) to inventory and assign two services on one loop, and that with minor modifications, incumbent LECs can easily use existing capabilities to inventory services on a shared line. In light of the apparent availability of OSS modifications that will satisfy incumbent LEC inventory needs, there is no justification to withhold requesting carrier's access to the high frequency portion of the loop while OSS modifications are implemented to allow carriers to order line sharing through electronic interfaces. The Third R&O urges the state commissions not to permit incumbent LECs to delay the availability of access to the high frequency portion of the loop while they implement automated OSS solutions, or to attribute an unreasonable portion of incumbent LEC OSS development costs to our spectrum unbundling requirements. The Third R&O expressly makes no judgment, however, that such non-automated measures would constitute nondiscriminatory access to OSS interfaces for the purposes of section 271 of the Act. It notes that a failure to implement OSS modifications

within the time frame we contemplate in this Order could be grounds for finding that a BOC is not providing nondiscriminatory access to unbundled network elements under section 271 of the Act.

45. *Billing.* The Third R&O finds that there is likely to be little, if any, billing system impact resulting from the provision of unbundled access to the high frequency portion of the loop.

46. *Maintenance, Repair, and Testing.* The Third R&O concludes that current industry methods and procedures for customer service, line maintenance, and service quality assurance can largely accommodate the demands of line sharing between competitive LECs and incumbent LECs.

47. First, the Third R&O finds that the customer must be informed that testing on one of their services will impact the other service sharing the customer's line. The Third R&O finds that either the incumbent or competitive LEC's customer service operations can provide sufficient customer education on this issue.

48. The second loop testing issue, however, is more complex. Specifically, both the incumbent and competitive LEC must have access to the shared loop facility for testing, maintenance, and repair activities. Assuming that the competitive LEC owns the DSLAM and installs it in its collocation space in the incumbent LEC end office or remote terminal, a splitter is required to isolate and direct the voice service to the incumbent LEC voice switch and the xDSL service to the competitive LEC's DSLAM. This splitter will likely be installed between the MDF and the other central office equipment. In this configuration, the incumbent LEC retains testing access to the outside part of the loop through the voice switch. The competitive LEC, however, can only access the high frequency portion of the loop at its DSLAM. This precludes the competitive LEC from engaging in certain important types of loop testing that require the competitive LEC to access the loop's whole frequency range. The ability to perform this type of loop testing is important for installation, maintenance, and repair activities in both shared and non-shared line situations.

49. The Third R&O requires that incumbent LECs must provide requesting carriers with access to the loop facility for testing, maintenance, and repair activities. We require that, at a minimum, incumbents must provide requesting carriers with loop access either through a cross-connection at the competitor's collocation space, or through a standardized interface

designed for to provide physical access for testing purposes. Such access must be provided in a reasonable and nondiscriminatory manner. An incumbent seeking to utilize an alternative physical access methodology may request approval to do so from the state commission, but must show that the proposed alternative method is reasonable, nondiscriminatory, and will not disadvantage a requesting carrier's ability to perform loop or service testing, maintenance, or repair. We stress that incumbents may not use their control over loop testing access points and mechanisms for anti-competitive or discriminatory purposes, and that we will remain attentive and ready to respond to any reported anti-competitive incidents relating to competitive LEC access to loop testing mechanisms.

50. *Customer Service, Troubleshooting, and Repair.* The Third R&O finds that maintenance, repair, and testing concerns can be handled by utilizing similar methods and procedures to those that incumbent LECs are implementing for the ordering and provisioning of other unbundled network elements. Specifically, it finds that incumbent LECs already have methods and procedures in place for the cooperative resolution of trouble and testing problems that arise with competitive LECs, and that these methods and procedures can easily be modified to include provisions for escalating shared line trouble issues in a manner that minimizes customer confusion.

51. *Resolution of Operational Issues.* The Third R&O finds that incumbent LECs have already modified their OSS systems to accommodate their own xDSL products, and that those modifications and those required for line sharing are substantially similar. Incumbent LECs can adapt expediently existing incumbent OSS systems to handle line sharing with a single requesting carrier. The Third R&O also finds that incumbent LECs can perform the incremental modifications to the existing ordering processes required to provide competitive LECs with access to the high frequency portion of the loop in an expedient manner and at modest expense. It finds that in the absence of fully automated OSS interfaces, incumbent LECs have a variety of means available with which they can accommodate competitive LEC orders for the unbundled high frequency portion of the local loop, including the use of manual overrides of their current UNE ordering methods and procedures. Accordingly, the Third R&O urges requesting carriers and incumbent LECs

to engage in a collaborative process at the regional level to develop solutions to incumbent LEC provision of shared line access.

52. The Third R&O does not identify or require incumbent LECs to make specific OSS methods and procedures, or facilities changes, and it does not prejudice whether specific OSS functionalities are necessary to fulfill an incumbent LEC's nondiscrimination duty. The Third R&O finds that incumbent LECs should be able to develop and implement the majority of systems modifications necessary to provide access to the higher frequency portion of the loop 180 days from release of this order. There are alternatives, to those system modifications that can not be implemented in 180 days, and these alternatives can be deployed in six months. Thus, the Third R&O concludes that incumbent LECs should be able to implement system changes necessary to provide requesting carriers with nondiscriminatory access to the high frequency portion of the local loop within 180 days from release of the order.

53. The Third R&O finds that there are five types of direct costs that an incumbent LEC potentially could incur to provide access to line sharing: (1) loops; (2) OSS; (3) cross connects; (4) splitters; and (5) line conditioning.

54. *Local Loop.* The Third R&O concludes that in arbitrations and in setting interim prices, states may require that incumbent LECs charge no more to competitive LECs for access to shared local loops than the amount of loop costs the incumbent LEC allocated to ADSL services when it established its interstate retail rates for those services.

55. *OSS.* The Third R&O finds that incumbent LECs should recover in their line sharing charges those reasonable incremental costs of OSS modification that are caused by the obligation to provide line sharing as an unbundled network element. It also reaffirms that the states may require incumbent LECs in an arbitrated agreement to recover such nonrecurring costs such as these incremental OSS modification costs through recurring charges over a reasonable period of time; and that nonrecurring charges must be imposed in an equitable manner among entrants.

56. *Cross Connects.* The Third R&O finds it reasonable for the states to establish a presumption that, where the splitter is located within the incumbent LECs' MDF, the cost for a cross connect for entire loops and for the high frequency portions of loops should be the same. It states that the states should examine carefully any assessment of

costs for cross connections for xDSL services that are in excess of the costs of connecting loops to a competitive LECs' collocated facilities where the splitter is located within the MDF. If the splitter is not located within the incumbent LEC's MDF, however, then the states should allow the incumbent LEC to adjust the charge for cross connecting the competitive LEC's xDSL equipment to the incumbent LECs' facilities to reflect any cost differences arising from the different location of the splitter, compared to the MDF.

57. *Splitters.* The Third R&O concludes that if the incumbent LEC purchases for a competitive LEC the same splitter that it uses itself for providing xDSL services, then a state may require that it only assess the competitive LEC the same amount that it itself pays for a delivered splitter. The Third R&O further concludes that a competitive LEC, at its option, should be allowed to purchase a splitter that complies with industry standards, and transfer it to the incumbent LEC, in the event that the competitive LEC can complete the transaction more expeditiously or cost effectively than the incumbent LEC. A state may also allow the incumbent LEC to include in its rate structure a charge to recover the cost of installing the splitters.

58. *Line Conditioning.* In order to prevent incumbent LECs from charging an excessive price for line conditioning, the Third R&O finds that states may require that the conditioning charges for shared lines not exceed the charges the incumbent LECs are permitted to recover for similar conditioning of stand-alone loops for xDSL services. Furthermore, if the incumbent LEC is providing, or has already provided, xDSL service over a particular shared loop, a competitive LEC should not be charged with any line conditioning costs if it wins that customer and seeks access to that shared loop for providing xDSL service. Thus, the Third R&O concludes that requiring line sharing and pricing it on the basis of TELRIC should not affect the ability of the incumbent LEC to recover costs associated with providing voice service.

59. *Effective Date of New Rules.* The rules established in the Third R&O require that the unbundling of the high frequency portion of the loop becomes effective February 9, 2000.

60. *States' Role in Fostering Local Competition Under Sections 251 and 252.* The Third R&O strongly encourages states to issue binding interim arbitration awards that would require the incumbent to begin provisioning this unbundled network element on interim arbitration terms and conditions

within 180 days of release of the Third R&O. The state interim arbitration award would remain in effect until such time as the state issues a final award. The Third R&O states that in the event that a state commission fails to take action in an arbitration proceeding within the nine months prescribed by Congress, the Commission is prepared to act promptly, pursuant to section 252(e)(5) and the Commission's implementing rules, to issue an order "preempting the State commission's jurisdiction of that proceeding or matter" and thereafter to bring the arbitration to an orderly, expeditious conclusion. Furthermore, noting that a few states already have taken significant steps toward requiring incumbent LECs in their jurisdiction to offer line sharing, the Third R&O emphasizes that the timetable it outlines for implementing line sharing on a nationwide basis should be viewed as a maximum period for states that have not yet taken any actions to make line sharing available, and that the intention is not to delay or constrain states that already have undertaken such initiatives.

61. The Third R&O contemplates that such interim arbitration awards would incorporate the rules adopted in the Third R&O and be sufficiently detailed to permit the incumbent LECs to begin providing this new unbundled network element immediately upon the effective date of the interim order. The interim arbitration awards, like final arbitration awards, should include the price of the high frequency portion of the loop based on the pricing guidelines set out in the Third R&O. The Third R&O encourages the states, when issuing their interim arbitration awards, to set the price for the unbundled high frequency portion of the loop at the amount that the incumbent assesses in establishing interstate rates for its own competing services.

62. In addition to arrangements reached through section 252-negotiation and arbitration procedures, Bell Operating Companies (BOCs) may prepare and file with a state commission a statement of generally available terms and conditions (SGAT) that they offer to comply with the requirements of section 251. Pursuant to section 252(i), competitive carriers will be able to obtain access to the high frequency portion of the loop at the same rates, terms, and conditions offered in any approved interconnection agreement, as well as the BOCs' SGATs.

63. *Duty to Negotiate in Good Faith.* The Third R&O concludes that as part of the incumbent LEC's duty to negotiate in good faith, upon commencement of the negotiation

process the incumbent LEC immediately should make available a representative who has region-wide decision-making authority to meet with the requesting carrier and any other competitive carriers seeking shared line access in the incumbent LEC's region at issue.

64. *Guidelines for State Arbitration Awards.* The Third R&O encourages states to require, in arbitration proceedings, incumbent LECs to fulfill requests for line sharing within the same interval the incumbent provisions xDSL to its own retail or wholesale customers, regardless of whether the incumbent uses an automated or manual process. The Third R&O further urges states to adopt provisioning intervals for this unbundled network element as part of any arbitration award, whether interim or final. Because there are currently no state-required provisioning intervals for the high frequency portion of the loop network element, the Third R&O recommends that states consider a standard based on the time required to provision xDSL capable loops. Where the incumbent LEC is already providing shared line xDSL service to a particular customer, however, the provisioning interval should be significantly shorter.

65. The Third R&O strongly urges the states to adopt an implementation schedule that requires an incumbent to begin provisioning this network element to requesting carriers no later than 45 days after the issuance of an arbitration award. Finally, the Third R&O encourages states to establish penalties for failure to meet provisioning intervals as part of any arbitration award.

III. Spectrum Policy

66. *Standards-Setting Entities.* The Third R&O reiterates the Commission's general belief that industry standards bodies can, and should, create acceptable standards for deployment of xDSL-based and other advanced services. Despite the neutrality and openness principles embedded in the standards setting processes of standards body T1E1.4, however, several parties continue to express concerns that T1E1.4 is dominated by incumbent LECs and that, as a result, standards setting is delayed and deployment of certain technologies particularly favored by competitive LECs is precluded. Thus, the Third R&O concludes that the Commission is compelled to play a role in standards development, and that the standards setting process must include the involvement of a third party to advise the Commission on spectrum compatibility standards and spectrum management practices. Specifically, the charter of an existing Federal Advisory Committee, the Network Reliability and

Interoperability Council (NRIC), will be amended to charge NRIC with such an advisory function.

67. NRIC V is requested to provide initial recommendations for resolution of spectrum compatibility and management issues to the Commission within 150 days from the establishment date of NRIC V. Moreover, NRIC is expected to submit reports to the Commission on standards and practices development issues as further deemed necessary by NRIC or the Commission and, in any event, promptly after NRIC has received appropriate input from industry standards bodies.

68. The Third R&O anticipates that NRIC will receive the majority of input from, and monitor most closely, the work of T1E1.4 with respect to developing spectrum compatibility standards, and with respect to fair and open practices for the deployment of advanced services technologies. The Third R&O emphasizes, however, that NRIC will be open to, and will consider submissions from, any appropriate industry standards body. Through the recommendations and reports that the Commission receives from NRIC, the Commission will evaluate whether T1E1.4 and other industry standards bodies are acting in a manner consistent with the policies that the Commission has determined should underlie spectrum compatibility standards-setting and formation of spectrum management rules and practices. Should the Commission find that certain industry standards bodies are adopting spectrum compatibility standards or spectrum management practices that continue to fail, in their underlying processes, in safeguarding principles of competitive neutrality and promoting innovation, the Commission will look to other industry standards bodies that uphold these principles, or the Commission will exercise its authority to assume the standards-setting function itself.

69. *Mechanisms for Demonstrating Spectrum Compatibility.* In the first order in this proceeding (*Advanced Services First Report and Order*, 14 FCC Rcd 4761 (1999)), the Commission sought comment on the best means to address spectrum compatibility. The Third R&O declines to adopt a federal rule mandating the use of either generic PSD masks or a calculation-based approach. Instead, it defers to the conclusions to be reached by industry standards-setting bodies on this issue.

70. Notwithstanding the Commission's abstention from adopting a federal rule governing methods for defining spectrum compatibility, the Third R&O observes that the use both of

generic PSD masks and a calculation-based approach appear to be the best means to address spectrum compatibility for purposes of spurring competition.

71. *Conditions for Acceptability of a Loop Technology for Deployment.* The *Advanced Services First Report and Order* concluded that, "until long-term standards and practices can be established," a loop technology should be presumed acceptable for deployment under any one of several circumstances. These circumstances include that the technology: (1) Complies with existing industry standards; (2) is approved by an industry standards body, the Commission, or any state commission; or (3) has been successfully deployed by any carrier without "significantly degrading" the performance of other services. The Third R&O codifies these presumptions and clarifies certain aspects of them.

72. The Third R&O reaffirms the conclusion from the *Advanced Services First Report and Order* that ADSL, HDSL, and ISDN services are presumed acceptable for deployment on fully unbundled loops where they comply with any one of certain enumerated standards. Similarly, in accordance with the second and third criteria outlined above, the Third R&O declares SDSL to be presumed acceptable for deployment. This finding, however, is limited to presuming SDSL acceptable for deployment on a fully unbundled loop. The Third R&O does not establish a presumption that SDSL is acceptable for deployment on a shared loop.

73. The Third R&O concludes that a competing carrier's use of the calculation-based method for demonstrating spectrum compatibility, as a prelude in most cases to initial deployment of a technology, should go far towards allaying the concerns of some commenters over risks of interference to the network from the deployment of a technology that was successfully deployed elsewhere. The LEC also will be able to rebut the presumption of acceptability before a state commission if the technology proposed for deployment poses a real interference threat in a certain area.

74. Consistent with the information disclosure requirements that were applied to incumbent LECs in the *Advanced Services First Report and Order*, the Third R&O finds that competitive LECs must provide to incumbent LECs information on the type of technology that they seek to deploy. The Third R&O concludes further that competitive LECs must provide this information in notifying the incumbent LEC of any proposed change

in advanced services technology that the carrier uses on the loop.

75. The Third R&O reaffirms the subjective definition of "significantly degrade" that was adopted in the *Advanced Services First Report and Order*, namely, "an action that noticeably impairs a service from a user's perspective." The Third R&O reiterates that where a carrier claims that a deployed service is significantly degrading the performance of other advanced services or traditional voice band services, that carrier must notify the deploying carrier and allow the deploying carrier a reasonable opportunity to correct the problem. Any claims of network harm presented to the deploying entity or, if subsequently necessary, the relevant state commission, must be supported with specific and verifiable corroborating information.

76. The Third R&O confirms that an incumbent LEC need not act as the initial point of contact in all service degradation disputes. Instead, the carrier that believes its services are being significantly degraded should notify the causing carrier when the carrier experiencing degradation knows with certainty the identity of the causing carrier. The Third R&O recognizes that a carrier whose services are being degraded may not know the precise cause of the degradation and thus may not know which carrier to contact for corrective action. In this circumstance, the carrier experiencing service degradation must notify each carrier that may have caused or contributed to the degradation, including, where applicable, the incumbent LEC. Where the carrier experiencing service degradation does not know which carriers share the binder group or have deployed services in an adjacent binder group, it should request that the incumbent LEC provide it with the relevant contact information for those other carriers.

77. The Third R&O reaffirms and codifies the policy enunciated in the *Advanced Services First Report and Order* 63 FR 4420 August 18, 1998, to guide states in the resolution of interference disputes. Specifically, where a LEC demonstrates that a deployed technology is significantly degrading the performance of other advanced services or traditional voice band services, "the carrier deploying the technology shall discontinue deployment of that technology and migrate its customers to technologies that will not significantly degrade the performance of other such services." The Third R&O adds an exception to this rule that the Commission believes

will further safeguard competitive neutrality and deployment of new technologies. Specifically, where the only interfered-with service itself is a known disturber, that service shall not prevail against the newly deployed technology.

78. *Binder Group Management.* The Third R&O concludes that the only permissible forms of binder group management are the segregation of known disturbers and the use of the interference protection techniques described above. Currently, the only technology that the Third R&O finds causes interference with sufficient persistence to rise to the level of a known disturber is analog T1. Because the designation of a technology as a known disturber impacts various national-level rules and policies, such as those governing interference dispute resolution and binder group management, and also triggers the determination by states of how the known interfering technology will be disposed, the Commission will decide which technologies should be considered as known disturbers.

79. The Third R&O limits segregation practices to known disturbers because only the interference risks of mixing known disturbers with other technologies outweigh the risks of anticompetitive segregation practices. Because the Commission currently does not determine ADSL to be a known disturber, the Third R&O finds that SBC may not implement SFS, a form of binder group management that segregates ADSL. SBC and any other carrier currently implementing any prohibited binder group management techniques, including SFS, must discontinue and dismantle such implementations within 60 days after the release of the Third R&O.

80. The Third R&O concludes that the states should determine disposition of known interfering technologies. The Third R&O further finds that leaving disposition of known interfering technologies to the states is preferable to establishing a national sunset period for known disturbers in this proceeding.

IV. Other Issues

81. *State Authority to Enact Additional Line Sharing Requirements.* In conformance with the rule established in the Third Report and Order in CC Docket No. 96-98 (*Local Competition Third Report and Order*), the Third R&O does not permit the states to reduce the unbundling obligations established in the Third R&O. States may enact additional or modified unbundling requirements only to the same extent that they are

permitted to do so in the *Local Competition Third Report and Order*. Any state that imposes unbundling requirements in contravention of section 253(a) of the Act will be subject to possible preemption by the Commission under section 253(d) of the Act. Moreover, the Third R&O declines to exempt rural incumbent LECs from the line sharing unbundling obligation, but notes that states retain the authority pursuant to section 251(f) of the Act to exempt certain rural LECs from all section 251 obligations.

82. *Takings*. The Third R&O disagrees with US WEST's characterization that declaring the high frequency portion of the local loop to be an unbundled network element results in a physical taking. As the Commission previously has stated in the *Local Competition Third Report and Order*, dedicating a particular element to the new entrant's exclusive use does not effect a physical occupation of any incumbent LEC's property because the incumbent LEC retains physical dominion over their network elements. Requesting carriers are simply permitted to send their communications over these elements. Moreover, to the extent requiring incumbent LECs to provide access to network elements could be characterized as a regulatory or physical taking, incumbent LECs have an adequate means available to secure just compensation. Thus, the Third R&O concludes that even if requiring incumbent LECs to provide competitive LECs with access to the unbundled high frequency spectrum of the local loop constitutes a taking under the Fifth Amendment, this taking is not unconstitutional.

V. Final Regulatory Flexibility Analysis

83. As required by the Regulatory Flexibility Act (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Advanced Services First Report and Order* and *FNPRM*. The Commission sought written public comment on the proposals in the *Advanced Services First Report and Order* and *FNPRM*, including comment on the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

Need for and Objectives of This Third Report and Order and the Rules Adopted Herein

84. In this Third Report and Order (Order), the Commission takes additional, important steps toward implementing Congress' goals for deployment of advanced services by requiring incumbent LECs to unbundle the high frequency portion of the loop,

and establishing spectrum compatibility and management policies.

85. First, the Commission amends our unbundling rules to require incumbent LECs to provide unbundled access to a network element, the high frequency portion of the loop. This will enable competitive LECs to provide xDSL service through telephone lines that they share with incumbent LECs, which is frequently called "line sharing." In order to ensure that line sharing does not significantly degrade analog voice service, incumbents must provide unbundled access to the high frequency portion of the loop only to carriers seeking to provide xDSL services that meet one of the Commission's criteria regarding the presumption of acceptability for deployment on the same loop as analog voice service.

86. The Commission also set specific parameters for line sharing deployment in order to ensure that the analog voiceband is preserved from significant degradation. Incumbents are not required to provide unbundled access to the high frequency portion of the loop if they are not currently providing analog voice service to the customer. Moreover, incumbent carriers must provide unbundled access to the high frequency portion of the loop to only a single requesting carrier, for use at the same customer address as the analog voice service provided by the incumbent. In addition, subject to certain obligations, incumbent LECs may maintain control over the loop and splitter equipment and functions.

87. The Commission also set forth pricing methodologies for the states to use as guidelines when setting the price of this new unbundled network element. Based on the record, we find that there are five types of direct costs that an incumbent LEC potentially could incur to provide access to line sharing: (1) loops; (2) OSS; (3) cross connects; (4) splitters; and (5) line conditioning.

88. In addition to line sharing requirements, we adopt rules in this Order that apply to spectrum compatibility and management. These rules will significantly benefit the rapid and efficient deployment of xDSL technologies. Specifically, the Commission seeks to encourage the voluntary development of industry standards while limiting the ability of any one class of carriers to impose unilateral and potentially anti-competitive spectrum management or compatibility rules on other xDSL providers. We believe that spectrum policies we adopt in this Order will ensure the compatibility of technologies and minimize the risk of harmful

spectrum interference among transmission services. As such, these policies will ensure that American consumers will not face undue delay in receiving the benefits of technological innovation.

89. The Commission also adopts rules that will govern when a loop technology is presumed acceptable for deployment. The circumstances include when the technology: (1) complies with existing industry standards; (2) has been approved by an industry standards body, the Commission, or any state commission; or (3) has been successfully deployed by any carrier without significantly degrading the performance of other services.

90. The Commission affirms our conclusions from the *Advanced Services First Report and Order* regarding resolution of interference disputes. In the event that a LEC demonstrates to the relevant state commission that a deployed technology is significantly degrading the performance of other advanced services or traditional voice band services, the carrier deploying the technology shall discontinue deployment of that technology and migrate its customers to technologies that will not significantly degrade the performance of other services. We now adopt an exception to this rule: where the only service experiencing interference is itself a known disturber, that service shall not prevail against the newly developed technology. We conclude that analog T1 service is a known disturber.

91. The only permissible forms of binder management are the segregation of known disturbers and the use of the spectrum compatibility (interference protection) techniques described above. The states may select one or more of several approaches towards disposition of known disturbers, including segregation or sunset of known disturbers.

Summary of Significant Issues Raised by Public Comments in Response to the IRFA

92. In the IRFA, the Commission stated that any rule changes would impose minimum burdens on small entities, and solicited comment on alternatives to our proposed rules that would minimize the impact they might have on small entities. The Office of Advocacy, United States Small Business Administration (SBA), commented on the issues raised in the First Report and Order and Further Notice of Proposed Rulemaking. SBA argued that the Commission should consider all comments received in response to the FNPRM, but also issue a second Further

Notice along with a revised IRFA that more accurately identifies all small businesses impacted and details the compliance burdens. Moreover, SBA is concerned that the Commission did not provide adequate notice regarding cost allocation and operational issues.

93. First, SBA argues that the *Advanced Services FNPRM* does not adequately identify all small entities affected by the line sharing and spectrum management proposals because the Commission did not identify small incumbent LECs as small entities. In fact, the Commission does include small incumbents in its RFA. While in the IRFA, the Commission stated that “[a]lthough some affected incumbent LECs 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,” the Commission goes on to state that “[o]ut 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.’” Moreover, as SBA is aware, the Commission continues formally to include small incumbent LECs in the RFA analysis of recent Commission items.

94. SBA also argues that the IRFA does not describe the possible reporting, recordkeeping, and other compliance requirements stemming from the proposals in the *Advanced Services FNPRM*. The Commission determined in the *Advanced Services FNPRM* that line sharing is technically feasible and requested comments on the operation issues relating to sharing a single line between two service providers. In addition, the Commission sought comment on additional measures the Commission could take to ensure that spectrum compatibility and management concerns are resolved in a fair and expeditious manner. The Commission sought comment on these two issues, and specifically identified issues such as the economic, pricing, and cost allocation implications of the line sharing proposals, as well as the burdens on the industry created by our spectrum policy proposals. As stated in the IRFA, we sought “comments on whether the Commission should establish rules for deployment of central office equipment similar to those set

forth in part 68 of our rules. We also ask[ed] commenters to address whether the Commission should be involved with the actual testing and compliance procedures or whether the industry is better suited to serve this function through the use of independent and accredited labs.” The commenters in this proceeding addressed these specific issues in a detailed manner, including any reporting, recordkeeping, and other compliance requirements associated with the proposals, suggesting that the Commission proposals were neither vague nor insufficient as alleged by SBA.

95. Third, SBA contends that the Commission’s IRFA did not discuss any alternatives to the proposals made in the *Advanced Services FNPRM*, and that the Commission’s claim that the proposals placed a minimum burden on small entities is unsupported by any analysis of the burdens. In the IRFA, the Commission sought “to develop a record sufficient enough to adequately address issues related to developing long-term standards and practices for spectrum compatibility and management, and to the sharing of loops by multiple providers.” In addressing these issues, the Commission sought to ensure that competing carriers, including small entity carriers, obtain access to inputs necessary to the provision of advanced services. We also tentatively concluded that our proposals in the *FNPRM* would impose minimal burdens on small entities. Moreover, we sought comment on these proposals and the impact they may have on small entities.”

96. Although the Commission did not describe explicitly each of the alternatives that we considered and rejected, as the proposals in the *Advanced Services FNPRM* make clear, the Commission is not considering proposals that would require small entities to engage in activities in which they are not already required to engage. These activities might require operational, accounting, billing, and legal skills that the small carriers already have. Moreover, certain proposals in the *Advanced Services FNPRM* clearly would benefit all carriers, including small carriers, by ensuring that all carriers have economic incentives to innovate and invest in new technologies. This document notes that in the text of the *Advanced Services FNPRM*, the Commission, in many instances, raised questions regarding alternatives to our proposals. These alternatives have the potential to benefit small entities. While the Commission did not reiterate each of these questions in the IRFA, we did describe our actions

in the IRFA, which was attached as an Appendix to the *Advanced Services FNPRM*, and as such, we provided sufficient notice for small entities.

VI. Description and Estimate of the Number of Small Entities Affected by the Third Report and Order

97. In the RFA to the Commission’s *Advanced Services Order* and *FNPRM*, we adopted the analysis and definitions set forth in determining the small entities affected by this order for purposes of this RFA. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by rules. The RFA generally defines “small entity” as having the same meaning as the term “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act, unless the Commission has developed one or more definitions that are appropriate to its activities. Under the Small Business Act, a “small business concern” is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the Small Business Administration (SBA). The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be small entities when they have no more than 1,500 employees. We first discuss the number of small telephone companies falling within these SIC categories, then attempt to refine further those estimates to correspond with the categories of telephone companies that are commonly used under our rules.

98. The most reliable source of information regarding the total numbers of 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 *Carrier Locator* report, derived from filings made in connection with the Telecommunications Relay Service (TRS). According to data in the most recent report, there are 3,604 interstate carriers. These carriers include, *inter alia*, local exchange carriers, 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.

99. The Commission has included small incumbent LECs in the present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation." The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope. We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on FCC analyses and determinations in other, non-RFA contexts.

100. *Total Number of Telephone Companies Affected.* The United States Bureau of the Census ("the Census Bureau") reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year. This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, PCS providers, covered SMR providers, and resellers. It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated." For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It seems reasonable to conclude, therefore, that fewer than 3,497 telephone service firms are small entity telephone service firms or small incumbent LECs that may be affected by the decisions and rules proposed in the Notice.

101. *Wireline Carriers and Service Providers.* SBA has developed a definition of small entities for telephone communications companies other than radiotelephone companies. The Census Bureau reports that, there were 2,321 such telephone companies in operation for at least one year at the end of 1992. According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons. All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more

than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, the Commission estimates that there are fewer than 2,295 small entity telephone communications companies other than radiotelephone companies that may be affected by the decisions and rules proposed in the Notice.

102. *Local Exchange Carriers.* Neither the Commission nor SBA has developed a definition of small local exchange carriers (LECs) or competitive local exchange carriers (CLECs). The closest applicable definition for these carrier-types under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of these carriers nationwide of which the Commission is aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TRS). According to our most recent data, there are 1,410 LECs, 129 CLECs, and 351 resellers.

103. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of these carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,410 small entity LECs, 129 CLECs, and 351 resellers that may be affected by the decisions and rules adopted in the *Order*.

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements

A. Line Sharing

104. The Commission set forth guidelines that states may use in pricing the higher frequencies of their local loops, which will be made available as an unbundled network element. The Commission determined that complying with these guidelines may require use of operational, accounting, billing, and legal skills. These are skills that the carriers already have. The Commission believes, however, that incumbent LECs will already have these skills. The

burden of compliance is minimal because they use the higher frequencies of their local loops already to provide the service that will be offered to others pursuant to the unbundled network element.

105. In this *Order*, we identify the high frequency portion of the loop as an additional network element that incumbent LECs are obligated to offer to requesting carriers on an unbundled basis nationwide. The Commission believes that incumbent LECs already have the skills necessary to accomplish this with little or no additional resources because incumbents will not have to hire new staff, or provide additional training to current staff. The Commission notes that, pursuant to section 251(c) and (d) of the 1996 Act, incumbent LECs, including those that qualify as small entities, are required to provide nondiscriminatory access to unbundled network elements. The only exception to this rule apply to those carriers that qualify for and have obtained an exemption, suspension, or modification pursuant to section 251(f) of the Act.

B. Spectrum Policy

106. The Commission requires competitive LECs to provide to incumbent LECs information on the type of technology they seek to deploy, including Spectrum Class information where a competitive LEC asserts that the technology it seeks to deploy fits within a generic power spectral density (PSD) mask. Where a competitive LEC relies on a calculation-based approach to support deployment of a particular technology, it must furnish the incumbent LEC with information on the speed and power at which the technology will be transmitted. Competitive LECs must provide this information in notifying the incumbent LEC of any proposed change in advanced services technology that the carrier uses on the loop, so that the incumbent LEC can correct its records and anticipate the effect that the change may have on other services in the same or adjacent binder groups. The provision of such information is integral to a competitive LEC's claim that the technology it seeks to deploy is presumed acceptable for deployment. The Commission determined that complying with these rules may require use of engineering, technical, operational, and legal skills.

Steps Taken To Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered

A. Line Sharing

107. The high frequency portion of the loop meets the statutory definition of a network element and must be unbundled pursuant to sections 251(d) and (c)(3). Our unbundling analysis benefits competitive carriers, including small entities, by enabling the carriers to have access to shared loops in order to serve customers who, heretofore, it has been uneconomical to serve. In order to ensure that line sharing does not significantly degrade analog voice service, incumbents must provide unbundled access to the high frequency portion of the loop only to carriers seeking to provide xDSL-based service that meets one of the Commission's criteria regarding the presumption of acceptability for deployment on the same loop as analog voice service. Incumbent carriers must provide unbundled access to the high frequency portion of the loop only to a single requesting carrier, for use at the same customer address as the analog voice service provided by the incumbent. Incumbents are not required to provide unbundled access to the high frequency portion of the loop if they are not currently providing analog voice service to the customer. Subject to certain obligations, incumbent LECs may maintain control over the loop and splitter equipment and functions. The specific parameters pursuant to which incumbent LECs have to provide access to shared lines benefit small entities, both incumbent and competitive carriers, by ensuring that carriers do not have to devote scarce resources to address line sharing arrangements, such as multiple carriers and multiple customers on the same loop, in which it is unlikely carriers seek to engage.

108. Moreover, the record shows that incumbents should be able to resolve operational issues associated with implementation of line sharing, including modifications to operations support systems, within six months. The record shows that incumbents have a number of process alternatives available and we will allow them the flexibility to choose the best and most economically feasible of them. The 180-day implementation period will benefit small incumbents who might not have the resources to make immediate changes to their OSSs.

Spectrum Policy

109. Although we reiterate our general belief that industry standards bodies

should create acceptable standards for deployment of advanced services, we remain convinced, however, that the Commission is compelled to play a role in fostering timely, fair, and open development of standards for current and future technologies. We conclude that the standards setting process must include the involvement of a third party to advise the Commission on spectrum compatibility standards and spectrum management practices. Specifically, the charter of an existing Federal Advisory Committee (FAC), the Network Reliability Interoperability Council (NRIC), will be amended to charge NRIC with such advisory function.

2. Because NRIC will make recommendations to the Commission based on input and submissions from T1E1.4 and other industry standards bodies, that balanced representation within the NRIC should be able to recommend against any issues that are unduly weighted towards any one particular industry segment, we expect that NRICs involvement in these issues will help in several ways to alleviate small business concerns about incumbent LEC domination of T1E1.4, and will help safeguard competitive neutrality in, and the timeliness of xDSL standards setting for network interoperability generally.

110. Should the Commission find that certain industry standards bodies are adopting spectrum compatibility standards or spectrum management practices that continue to fail, in their underlying processes, in safeguarding principles of competitive neutrality and promoting innovation, we will look to other industry standards bodies that uphold these principles or we will exercise our authority to assume that standards-setting function ourselves.

111. The Commission finds the criterion for acceptability for deployment outlined above—successful deployment of a technology elsewhere without significantly degrading the performance of other services—to be particularly useful for assisting the deployment of new technologies without subjecting them to delays often encountered with industry standards-setting fora. As a method to achieve a presumption of acceptability for deployment that does not rely upon industry standards bodies, the successful deployment criterion provides a further antidote against concerns regarding the competitive neutrality of the industry standards-setting process. This criterion should benefit small LECs because it relieves the LEC from having to meet the potentially burdensome requirements of the industry standards setting process.

112. The LEC also will be able to rebut the presumption of acceptability before a state commission if the technology proposed for deployment poses a real interference threat in a certain area. We are confident that this represents a sufficient safeguard for network reliability. Indeed, because the power to rebut the presumption of acceptability for deployment of a technology before a state commission is an important safeguard for LECs, we decline to make the presumptions that are based on technology's standardization or other approval by an industry standards body or this Commission irrebuttable. This rebuttable presumption benefits small LECs because it gives them a vehicle to protect the network and their deployed services. Small LECs particularly benefit by the fact that we allow carriers to rebut the presumption of acceptability for deployment before the relevant state commission.

113. The Commission confirms that an incumbent LEC need not act as the initial point of contact in all service degradation disputes. This relieves small incumbent LECs from the potential responsibility for fielding all complaints; a task which could create an administrative burden and a resource drain on small incumbents.

114. The Commission reaffirms and codify the policy that we enunciated in the *Advanced Services First Report and Order* to guide states in the resolution of interference disputes. Specifically, where a LEC demonstrates that a deployed technology is significantly degrading the performance of other advanced services or traditional voice band services, "the carrier deploying the technology shall discontinue deployment of that technology and migrate its customers to technologies that will not significantly degrade the performance of other such services. We now add an exception to this rule that we believe will further safeguard competitive neutrality and deployment of new technologies. Specifically, where the only interfered-with service itself is a known disturber, as designated by this Commission, that service shall not prevail against the newly developed technology. This exception prevents the undue protection of noisier technologies that are at or near the end of their useful life cycle, at the same time preventing the undue preclusion of new, more efficient and spectrally compatible technologies. This rule benefits incumbents, including small incumbents, by protecting the deployment of innovative services. The deployment of known disturbers is not at risk of being displaced by new

technologies that do not meet the presumption of acceptability for deployment.

115. Such an approach would designate automatic winners in the event of interference disputes. Chief among these concerns is that the guarded services approach is blatantly discriminatory, protecting technologies favored by competitive LECs. We emphasize that any criteria that favor incumbent LEC services in a manner that automatically trumps, without further consideration, innovative services offered by new entrants is neither consistent with section 706 of the 1996 Act nor with the Commission's goals as set out in the *Advanced Services First Report and Order*. The policies that we reiterate and adopt here as rules with respect to interference dispute resolution protect new technologies often deployed by small carriers against otherwise guarded technologies that tend to be deployed by incumbents who are generally larger than competitive carriers that do not favor the guarded services approach having carte blanche to be deployed after-the-fact and cause interference. These policies also provide guidance at the national level, in accordance with our finding in the *Advanced Services First Report and Order* that "uniform spectrum management procedures are essential to the success of advanced services deployment" where they are possible, precisely to avoid requiring competitive LECs to conform to different specifications in each state. These policies, therefore, benefit small carriers by making it administratively more efficient to deploy advanced services nationwide.

116. The Commission concludes that only permissible forms of binder group management are the segregation of known disturbers and the use of interference protection techniques. The Commission believes that the interference that known disturbers in particular are likely to cause in a multi-service environment renders it worthwhile for us to allow incumbent LECs to decide whether to segregate such disturbers as a further measure to protect against interference. This conclusion helps small incumbent LECs to the extent that they are likely to have some deployment of known disturbers (analog T1), because segregation is much less burdensome on small incumbents than forced replacement. This rule also helps small competitive carriers by prohibiting segregation of services in a discriminatory manner.

117. Numerous competitive LECs, which are often small businesses, continue to express concern that if we

vest in incumbent LECs right to manage binder groups unfettered, we will provide ample opportunity for incumbent LECs to discriminate against introduction of new technologies and/or to institute binder configurations which significantly favor their own deployed technologies. The Commission is persuaded that we must limit segregation practices to known disturbers, because only the interference risks of mixing known disturbers with other technologies outweigh the risks of anticompetitive segregation practices. Because we currently do not determine ADSL to be a known disturber, we find that SBC may not implement SFS, and we do order that SBC dismantle any currently existing SFS implementation. We further stress that carriers cannot use binder group management to preclude the deployment of new technologies that are otherwise presumed to be acceptable for deployment.

118. The Commission finds leaving disposition of known interfering technologies to the states preferable to establishing a national sunset period for known disturbers in this proceeding. The Commission is concerned that a blanket sunset period may lead to unnecessary replacement of analog T1 or other otherwise known disturbers, which could lead further to unnecessary network disruption and could force carriers to undertake exorbitant replacement expenditures. In addition, as we acknowledged in the *Advanced Services First Report and Order* and *FNRPM*, carriers that have a substantial base of analog T1 in deployment, and in some areas it provides the only feasible high-speed transmission capability. We also recognize that transitioning customers to less interfering technologies may disrupt service for subscribers. This rule benefits incumbents, including small incumbents, by not imposing an automatic sunset period for known disturbers. Such a sunset could be expensive and have unnecessary detrimental effects on small carriers. At the same time, states are better equipped than incumbent LECs to take an objective view of the disposition of known disturbers, because of the vested interest that incumbent LECs have in their own substantial base of known disturbers such as analog T1.

Ordering Clauses

Accordingly, pursuant to the authority contained in Sections 1 through 4, 7, 10, 201 through 205, 251 through 254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151 through 154,

157, 160, 201 through 205, 251 through 254, 256, 271, and 303(r), this *Third Report and Order* is adopted,

119. Part 51 of the Commission's Rules, 47 CFR 51, is amended.

120. SBC Communications Inc. and all of its affiliated companies shall dismantle any currently existing Selective Feeder Separation (SFS) implementations, unless such implementations solely designate, segregate or reserve particular loops or binder groups for use solely by analog T1 technology. Any carrier currently implementing any binder group management technique, including SFS, which we prohibit above in Section V.B.4. of this Order and that designates, segregates or reserves particular loops or binder groups for use solely by any particular advanced services loop technology other than analog T1, shall discontinue and dismantle such implementations within 60 days after the release of this Order.

121. The action contained herein has been analyzed with respect to the Paperwork Reduction Act of 1995 and found to impose new or modified reporting and recordkeeping requirements or burdens on the public.

List of Subjects in 47 CFR Part 51

Communications common carriers, telecommunications, telephone.

Federal Communications Commission.

Magalie Roman Salas,
Secretary.

Rule Changes

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

PART 51—INTERCONNECTION

1. The authority for part 51 continues to read as follows:

Authority: Sections 1–5, 7, 201–05, 207–09, 218, 225–27, 251–54, 271, 332, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 151–55, 157, 201–05, 207–09, 218, 225–27, 251–54, 271, 332, unless otherwise noted.

2. In § 51.5, the following definitions are added in alphabetical order to read as follows:

§ 51.5 Terms and definitions.

* * * * *

Binder or binder group. Copper pairs bundled together, generally in groups of 25, 50 or 100.

* * * * *

Known disturber. An advanced services technology that is prone to cause significant interference with other services deployed in the network.

* * * * *

3. In § 51.319, paragraph (h) is added to read as follows:

§ 51.319 Specific unbundling requirements.

* * * * *

(h) *High frequency portion of the loop.*

(1) The high frequency portion of the loop network element is defined as the frequency range above the voiceband on a copper loop facility that is being used to carry analog circuit-switched voiceband transmissions.

(2) An incumbent LEC shall provide nondiscriminatory access in accordance with § 51.311 of these rules and section 251(c)(3) of the Act to the high frequency portion of a loop to any requesting telecommunications carrier for the provision of a telecommunications service conforming with § 51.230 of these rules.

(3) An incumbent LEC shall only provide a requesting carrier with access to the high frequency portion of the loop if the incumbent LEC is providing, and continues to provide, analog circuit-switched voiceband services on the particular loop for which the requesting carrier seeks access.

(4) *Control of the loop and splitter functionality.* In situations where a requesting carrier is obtaining access to the high frequency portion of the loop, the incumbent LEC may maintain control over the loop and splitter equipment and functions, and shall provide to requesting carriers loop and splitter functionality that is compatible with any transmission technology that the requesting carrier seeks to deploy using the high frequency portion of the loop, as defined in this subsection, provided that such transmission technology is presumed to be deployable pursuant to § 51.230.

(5) *Loop conditioning.* (i) An incumbent LEC must condition loops to enable requesting carriers to access the high frequency portion of the loop spectrum, in accordance with §§ 51.319(a)(3), and 51.319(h)(1). If the incumbent LEC seeks compensation from the requesting carrier for line conditioning, the requesting carrier has the option of refusing, in whole, or in part, to have the line conditioned, and a requesting carrier's refusal of some or all aspects of line conditioning will not diminish its right of access to the high frequency portion of the loop.

(ii) Where conditioning the loop will significantly degrade, as defined in § 51.233, the voiceband services that the incumbent LEC is currently providing over that loop, the incumbent LEC must either:

(A) Locate another loop that has been or can be conditioned, migrate the

incumbent LEC's voiceband service to that loop, and provide the requesting carrier with access to the high frequency portion of the alternative loop; or

(B) Make a showing to the relevant state commission that the original loop cannot be conditioned without significantly degrading voiceband services on that loop, as defined in § 51.233, and that there is no adjacent or alternative loop available that can be conditioned or to which the customer's voiceband service can be moved to enable line sharing.

(iii) If the relevant State commission concludes that a loop cannot be conditioned without significantly degrading the voiceband service, the incumbent LEC cannot then or subsequently condition that loop to provide advanced services to its own customers without first making available to any requesting carrier the high frequency portion of the newly-conditioned loop.

(6) *Digital loop carrier systems.* Incumbent LECs must provide to requesting carriers unbundled access to the high frequency portion of the loop at the remote terminal as well as the central office, pursuant to § 51.319(a)(2) and § 51.319(h)(1).

(7) *Maintenance, repair, and testing.* (i) Incumbent LECs must provide, on a nondiscriminatory basis, physical loop test access points to requesting carriers at the splitter, through a cross-connection to the competitor's collocation space, or through a standardized interface, such as an intermediate distribution frame or a test access server, for the purposes of loop testing, maintenance, and repair activities.

(ii) An incumbent seeking to utilize an alternative physical access methodology may request approval to do so from the relevant state commission, but must show that the proposed alternative method is reasonable, nondiscriminatory, and will not disadvantage a requesting carrier's ability to perform loop or service testing, maintenance or repair.

4. Section 51.230 is added to read as follows:

§ 51.230 Presumption of acceptability for deployment of an advanced services loop technology.

(a) An advanced services loop technology is presumed acceptable for deployment under any one of the following circumstances, where the technology:

(1) Complies with existing industry standards; or

(2) Is approved by an industry standards body, the Commission, or any state commission; or

(3) Has been successfully deployed by any carrier without significantly degrading the performance of other services.

(b) An incumbent LEC may not deny a carrier's request to deploy a technology that is presumed acceptable for deployment unless the incumbent LEC demonstrates to the relevant state commission that deployment of the particular technology will significantly degrade the performance of other advanced services or traditional voiceband services.

(c) Where a carrier seeks to establish that deployment of a technology falls within the presumption of acceptability under paragraph (a)(3) of this section, the burden is on the requesting carrier to demonstrate to the state commission that its proposed deployment meets the threshold for a presumption of acceptability and will not, in fact, significantly degrade the performance of other advanced services or traditional voice band services. Upon a successful demonstration by the requesting carrier before a particular state commission, the deployed technology shall be presumed acceptable for deployment in other areas.

5. Section 51.231 is added to read as follows:

§ 51.231 Provision of information on advanced services deployment.

(a) An incumbent LEC must provide to requesting carriers that seek access to a loop or high frequency portion of the loop to provide advanced services:

(1) Uses in determining which services can be deployed; and information with respect to the spectrum management procedures and policies that the incumbent LEC.

(2) Information with respect to the rejection of the requesting carrier's provision of advanced services, together with the specific reason for the rejection; and

(3) Information with respect to the number of loops using advanced services technology within the binder and type of technology deployed on those loops.

(b) A requesting carrier that seeks access to a loop or a high frequency portion of a loop to provide advanced services must provide to the incumbent LEC information on the type of technology that the requesting carrier seeks to deploy.

(1) Where the requesting carrier asserts that the technology it seeks to deploy fits within a generic power spectral density (PSD) mask, it also

must provide Spectrum Class information for the technology.

(2) Where a requesting carrier relies on a calculation-based approach to support deployment of a particular technology, it must provide the incumbent LEC with information on the speed and power at which the signal will be transmitted.

(c) The requesting carrier also must provide the information required under paragraph (b) of this section when notifying the incumbent LEC of any proposed change in advanced services technology that the carrier uses on the loop.

6. Section 51.232 is added to read as follows:

§ 51.232 Binder group management.

(a) With the exception of loops on which a known disturber is deployed, the incumbent LEC shall be prohibited from designating, segregating or reserving particular loops or binder groups for use solely by any particular advanced services loop technology.

(b) Any party seeking designation of a technology as a known disturber

should file a petition for declaratory ruling with the Commission seeking such designation, pursuant to § 1.2 of this chapter.

7. Section 51.233 is added to read as follows:

§ 51.233 Significant degradation of services caused by deployment of advanced services.

(a) Where a carrier claims that a deployed advanced service is significantly degrading the performance of other advanced services or traditional voiceband services, that carrier must notify the deploying carrier and allow the deploying carrier a reasonable opportunity to correct the problem. Where the carrier whose services are being degraded does not know the precise cause of the degradation, it must notify each carrier that may have caused or contributed to the degradation.

(b) Where the degradation asserted under paragraph (a) of this section remains unresolved by the deploying carrier(s) after a reasonable opportunity to correct the problem, the carrier whose services are being degraded must establish before the relevant state

commission that a particular technology deployment is causing the significant degradation.

(c) Any claims of network harm presented to the deploying carrier(s) or, if subsequently necessary, the relevant state commission, must be supported with specific and verifiable information.

(d) Where a carrier demonstrates that a deployed technology is significantly degrading the performance of other advanced services or traditional voice band services, the carrier deploying the technology shall discontinue deployment of that technology and migrate its customers to technologies that will not significantly degrade the performance of other such services.

(e) Where the only degraded service itself is a known disturber, and the newly deployed technology satisfies at least one of the criteria for a presumption that it is acceptable for deployment under § 51.230, the degraded service shall not prevail against the newly-deployed technology.

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