While we strongly prefer to rely on natural market forces and mechanisms to address such network interoperability issues, we find that in order to achieve Congress's goals under section 706, under the circumstances at hand we must intervene to facilitate network deployment of advanced services by multiple providers.[383] Therefore, in order to encourage deployment of innovative technologies and allow competitors the same opportunity as incumbent LECs to deploy advanced services in a multi-provider, multi-service environment, we need to establish ground rules concerning what technologies can be deployed and who has the final say on various deployment issues. By establishing minimal ground rules now, we enable the industry, through its standards-setting bodies, to develop spectrum compatibility standards and spectrum management practices on a continuously ongoing basis, with our assumption of the standards-setting function only in extreme cases where industry standards bodies continue to fail in upholding the general policies that underlie spectrum compatibility standards and spectrum management rules and practices.

180. In the *Advanced Services First Report and Order*, we concluded that the general policies that should underlie spectrum compatibility standards and spectrum management rules and practices are: (1) fostering competitive deployment of innovative technologies; and (2) ensuring the quality and reliability of the public telephone network.[384] In order to promote these policies, we decided to establish certain spectrum management rules.[385] We declared that incumbent LECs may not unilaterally determine what technologies may be deployed. The better approach, we concluded, is to establish competitively neutral spectrum compatibility standards and spectrum management rules and practices so that all carriers know, without being subject to unilateral incumbent LEC determinations, which technologies can be deployed and can design their networks and business strategies accordingly.[386] Similarly, we found that uniform spectrum management procedures are essential to the success of advanced services deployment.[387]

181. In the accompanying *FNPRM*, which we adopted because we found that we did not have a sufficient record to address adequately all of the long-term spectrum compatibility and management issues,[388] we reached several tentative conclusions regarding the standards setting

[383] In a separate proceeding, CC Docket No. 99-216, we have held fora and solicited comment on changes to our customer premises equipment connection rules under Part 68. *See Part 68 Notice.*

[384] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4795-96, para. 63. *See also id.*, 14 FCC Rcd at 4803, para. 84.

[385] *See id.*, 14 FCC Rcd at 4798-99, para. 70.

[386] *Id.*, 14 FCC Rcd at 4796, para. 63; *see id.*, 14 FCC Rcd at 4801-02, para. 79.

[387] *Id.*, 14 FCC Rcd at 4799, para. 71. Notwithstanding our clearly articulated positions in the *Advanced Services First Report and Order and FNPRM,* certain incumbent LECs continue to insist that they should have unfettered jurisdiction over spectrum management. *See, e.g.,* GTE Comments at 11 ("the Commission should assign unambiguous responsibility for network reliability and integrity to the facility owner"); SBC Comments at 12 ("the Commission . . . should leave it to the [incumbent LECs] on how best to manage their networks").

[388] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4796, 4803 and 4805, paras. 64, 84 and 90.

process itself. Specifically, we tentatively concluded that: (1) this process should include the active participation of the incumbent LECs, competitive LECs, equipment suppliers and the Commission; (2) this process should be competitively neutral in both structure and procedure; (3) representation should be spread equitably over all segments of the industry; and (4) representatives should have equal authority, with no party or groups of parties presuming to have greater weight or "veto" power.[389]

182. We sought comment on the best process or forum for developing future power spectral density (PSD) masks[390] and other spectrum compatibility standards. We tentatively concluded that T1E1.4, a working group of Alliance for Telecommunications Industry Solutions (ATIS)-sponsored Committee T1, which is accredited by the American National Standards Institute (ANSI), is the best forum for this task.[391] We also tentatively concluded that T1E1.4 should serve as the forum to establish fair and open practices for the deployment of advanced services technologies.[392] We sought comments on how to foster broader representation and participation in T1E1.4, and solicited suggestions on other fora for, or methods of, guaranteeing fair and timely resolution of spectrum compatibility issues.[393] In addition, we requested that parties comment on whether a voluntary industry effort could address effectively loop management issues, and whether the Commission should solicit the assistance of a third party in developing spectrum compatibility standards and spectrum management policies. We asked what powers such a third party should have and what role it should serve.[394]

B. Discussion

1. Standards-Setting Entities

183. We reiterate our general belief that industry standards bodies can, and should, create acceptable standards for deployment of xDSL-based and other advanced services. ATIS

[389] *Id.*, 14 FCC Rcd at 4801-02, para. 79. No commenter objected to these tentative conclusions.

[390] PSD masks are represented as graphical templates that define the limits on signal power densities across a range of frequencies, so as to minimize interference. A PSD mask charts the maximum power and frequency levels that a particular xDSL technology will attain, enabling engineers to deploy a xDSL technology in a manner that minimizes crosstalk between that xDSL technology and the other technologies deployed within the local loop plant. *See* Letter from Jeffrey Blumenfeld, General Counsel, Rhythms NetConnections Inc., to Stagg Newman and Douglas Sicker, Office of Engineering and Technology, Federal Communications Commission, CC Docket No. 98-147, at 3 (filed Oct. 12, 1999) (Rhythms Oct. 12 *Ex Parte*). We discuss in detail in Section V.B.2 below the use of PSD masks to address spectrum compatibility issues.

[391] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4802, para. 81.

[392] *Id.*, 14 FCC Rcd at 4803, para. 85.

[393] *Id.*, 14 FCC Rcd at 4802, para. 81. Similarly, we premised our tentative conclusion that T1E1.4 should serve as the forum to establish fair and open deployment practices on the assumption that a method will be developed to ensure "active participation of all segments of the industry" in T1E1.4. *Id.,* 14 FCC Rcd at 4803, para. 85.

[394] *Id.*, 14 FCC Rcd at 4804-05, para. 89.

standards setting processes, which may culminate ultimately in the ANSI standards approval process, are facially neutral, open to all interested parties, and contain safeguards against domination by any one particular interest.[395] Despite the neutrality and openness principles embedded in these processes, however, several commenters continue to express concerns that T1E1.4 is dominated by incumbent LECs.[396] These commenters are concerned that T1E1.4's standards setting work is proceeding too slowly and, as a result, delays or precludes deployment of certain technologies particularly favored by competitive LECs.[397] We are committed to the goals of reasonable and timely deployment of advanced services for all Americans, and thus we are concerned with any delays.

184. We remain convinced, therefore, that the Commission is compelled to play a role in fostering timely, fair, and open development of standards for current and future technologies.[398] 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.[399] Specifically, the charter of an existing Federal Advisory Committee (FAC), the Network Reliability and Interoperability Council (NRIC),[400] will be amended to charge NRIC with such an advisory function.[401] We find that NRIC is the best choice amongst

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[395] *See* ATIS Comments at 5-8, 14, 19-21.

[396] *See* ALTS Comments at 21-24; Covad Comments at 43; GSA Comments at 5; NorthPoint Comments at 43; NorthPoint Reply Comments at 44, 50-52; Rhythms Reply Comments at 37-39 (T1E1 currently is "captured" by incumbent LECs). *But see* BellSouth Comments at 29; Sprint Comments at 2; GTE Comments at 5-6 ("the working groups of Committee T1 already operate in an open, neutral manner. . . . Committee T1 is not dominated by any single interest group").

[397] *See* Covad Sept. 1 *Ex Parte*; Rhythms Reply Comments at 25-26. *See also OMB Circular A-119*, 63 Fed. Reg. at 8555 (when considering use of an industry voluntary consensus standard, an agency "should take full account of the effect of . . . applicable federal laws and policies, including laws and regulations relating to antitrust . . . small business . . . [and] technology development").

[398] *Advanced Services First Report and Order and FNPRM*, 14 FCC Rcd at 4802, para. 80. *See* ALTS Comments at 21; NorthPoint Comments at 32, 40-42.

[399] *See* ALTS Comments at 22-25; Covad Comments at 48, 53-54; Sprint Comments at 5, 7 (proposing an ad hoc industry forum, consisting of incumbent LECs, competitive LECs and manufacturers, to develop spectrum management policies). *But see* BellSouth Reply Comments at 33; SBC Comments at 11 ("adding a third party to the loop spectrum management process would only further complicate matters. . . . [Incumbent LECs], in implementing these standards, have every incentive to manage the network in the most efficient manner and to safeguard the integrity and reliability of all services on the network").

[400] The rechartering of NRIC as NRIC V is a separate process, outside of this proceeding. Our proposal for NRIC V is subject to approval by the Administrator of the General Services Administration. *See* 41 C.F.R. §§ 105-54.201 – 105-54.202.

[401] We note that we sought comment in the *Advanced Services First Report and Order and FNPRM* on whether we should empower any third party, whose assistance we solicited in spectrum compatibility and management matters, to develop binder group management procedures and resolve disputes between carriers over the existence of disturbers in shared facilities. 14 FCC Rcd at 4804-05, para. 89. Because we establish in this order rules governing binder group management and mechanisms for interference dispute resolution between carriers, NRIC will have no

currently established FACs for this task, because its responsibility to assure interoperability of public telecommunications networks includes addressing spectrum compatibility issues.[402]

185. In this capacity, NRIC will receive input from industry standards bodies, such as T1E1.4, and monitor developments within them, in turn reporting periodically to, and preparing recommendations for, the Commission on matters relating to spectrum compatibility and management.[403] To that end, we request that NRIC V provide initial recommendations for resolution of spectrum compatibility and management issues to the Commission within 150 days from the establishment date of NRIC V.[404] Moreover, because we have recognized the continuously ongoing nature of spectrum compatibility standards and spectrum management practices development,[405] we expect NRIC 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.

186. We anticipate 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. This expectation reflects our continued confidence, shared by an overwhelming majority of

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responsibility in these areas other than to report to us on the effectiveness of these rules and mechanisms. *See infra* Sections V.B.3.c. and V.B.4.

[402] Similarly, in its final report to the Commission, NRIC III, whose charter ran from April 1996 through early January 1998, described, inter alia, user interoperability issues involved when mixing ADSL technologies with other digital services. NRIC III concluded that "[s]pectrum compatibility needs to be addressed to resolve these potential interoperability issues." Network Reliability and Interoperability Council, *NRIC Network Interoperability: The Key to Competition*, at 139, § 7.2.2.2.3 (July 15, 1997) <http://www.nric.org/pubs> (*NRIC Interoperability Report*). Both NRIC III and its successor, NRIC IV, were chartered to assure interoperability of public telecommunications networks, among several other objectives. Consistent with this objective, NRIC V will be chartered to address several network interoperability issues, including spectrum compatibility standards and spectrum management processes. *See Id.* at 133-34, § 7.1.2.1 (with respect to access standards development, such as that occurring in Committee T1, NRIC III advised that "to improve compatibility, standards should have a sharp technical focus and standards bodies should strive to minimize the complexity and optionality of requirements. At the same time, standards should focus on achieving a basic level of interoperability, and should not be so specific as to stifle innovative approaches to a problem").

[403] *See generally* NorthPoint Comments at 32, 41, 45-47 (asserting that the Commission should establish a FAC to develop spectrum policy with the input of industry bodies including T1E1, and in a manner that preserves the Commission's ultimate authority to resolve spectrum policy issues, balances the Commission's goals of promoting innovation and protecting existing services from harmful interference, and is open, nondiscriminatory, and participatory). We anticipate that industry standards bodies periodically will report to NRIC on the status of work within them relating to spectrum compatibility and management, and will submit to NRIC standards that they have developed. NRIC also may relay to standards bodies issues on which it is seeking to report to or prepare recommendations for the Commission. Pursuant to the Federal Advisory Committee Act (FACA), but contrary to NorthPoint's suggestion that a FAC "implement and administer spectrum policy," NorthPoint Comments at 32, determinations of actions to be taken and policy to be expressed with respect to matters upon which NRIC reports or makes recommendations shall be made solely by the Commission or Commission staff. 5 U.S.C. App. 2 § 9(b).

[404] *See* 41 C.F.R. § 105-54.202(b).

[405] *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4802, 4805, paras. 80, 90.

commenters in this proceeding, that T1E1.4 is well equipped to develop future PSD masks and other spectrum compatibility standards.[406] T1E1.4, which maintains a participation list of over 400 representatives from incumbent LECs, competitive LECs, interexchange carriers, equipment manufacturers, and other interested parties, has the expertise and experience to develop spectrum compatibility standards.[407] As we acknowledged in the *Advanced Services First Report and Order and FNPRM*, T1E1.4 has been working on spectrum compatibility standards for over four years and on spectrum management for over a year.[408] Moreover, it already has established technical standards for several varieties of xDSL technologies.[409] In fact, T1E1.4's specific objective is to establish xDSL access standards.[410]

187. We also expect that NRIC will receive the most input from, and monitor most closely, the work of T1E1.4 with respect to fair and open practices for the deployment of advanced services technologies,[411] though we reiterate that NRIC will be open to, and will consider submissions from, any appropriate industry standards body. As we noted in the *Advanced Services First Report and Order,* these spectrum management practices include, for example, "the rules for testing and implementing xDSL-based and other advanced services."[412] To clarify further, deployment practices essentially refer to practices addressing "how" an advanced services technology is deployed in a manner that safeguards spectrum compatibility, and to guidelines for choosing among technologies where they conflict with each other. The former generally are a matter of technical standards-setting, while the latter tend to move more towards policy-making.[413]

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[406] *See, e.g.,* BellSouth Comments at 29; GSA Comments at 5 ("the T1E1.4 working group appears to have ample technical capabilities"); GTE Comments at 8; NorthPoint Comments at 43; Rhythms Comments at 17; SBC Comments at 3; Sprint Comments at 3 ("T1E1.4 is the forum where the industry experts reside, and there is no similar assembly of industry expertise in any other forum in North America").

[407] *See* ATIS Comments at 5, 20.

[408] *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4805, para. 90; ATIS Comments at 11, 13-14, 18.

[409] *See, e.g.,* Network and Customer Installation Interfaces - Asymmetric Digital Subscriber Line (ADSL) Metallic Interface (ANSI T1.413-1995) (ANSI T1.413 standard presents the electrical and other characteristics of the ADSL signals appearing at the network interface).

[410] *See* ATIS Comments at 1.

[411] *See, e.g.,* California PUC Comments at 4; GTE Comments at 10.

[412] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4799, para. 71.

[413] The line between policy-making and technical standards-setting often is blurred in the realm of deployment practices, however. The distinction between policy-making and technical standards-setting is significant because, by Committee T1's own procedures, policy-making generally is not an appropriate activity for T1E1.4. *See* ATIS Standards Committee T1 – Telecommunications Procedures Manual, 11th Issue, October 1998 (Revised as of the June 25, 1999 Committee T1 Meeting), at 67, § 8.2.1 (Committee T1 Procedures Manual) <ftp://ftp.t1.org/pub/t1/t1proc.pdf>. These procedures state: "Committee T1 will respond to . . . technical issues as

188. We expect that NRIC's involvement in these issues will help in several ways to alleviate 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. First, through our authority to appoint the members of NRIC, we will ensure that NRIC represents a balancing of industry interests.[414] Because NRIC will make recommendations to the Commission based on input and submissions from T1E1.4 and other industry standards bodies, the balanced representation within NRIC should be able to recommend against any issues that are unduly weighted towards any one particular industry segment.

189. Second, because NRIC will be able to consider the processes behind any submissions from standards-setting bodies, and because the potential exists for presentation to NRIC of competing standards and practices from different standards-setting bodies, NRIC's view of which process best reflects competitive balance may and should influence its recommendations to the Commission. Moreover, the basis for NRIC's recommendations may be augmented by appearances before it or statements filed with it by any interested person.[415]

190. Third, though we continue to recognize that the standards development process is by nature lengthy and may result in delay of the deployment of new technologies even in the absence of artificial and subtle delay tactics,[416] we expect that NRIC will not recommend to the Commission the standards developed by a standards-setting body that unduly delays its standards setting process. If a standards-setting body does not submit its standards to NRIC in the same

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commensurate with its primary objective of developing American National Standards . . . Policy issues, on the other hand, are not within the mission and scope of Committee T1." The procedures go on to explain, however, that "[t]here are times when it is very difficult to differentiate between technical and policy issues. Further, it should be recognized that even though a question is presented in technical form, it may evolve policy issues." Responsibility for differentiating between technical and policy issues is vested in Committee T1 or its designate, Committee T1 Advisory Group.

Though we conclude that T1E1.4's charge to establish xDSL access standards renders it the most appropriate industry forum for developing fair and open advanced services deployment practices, and anticipate that NRIC likewise will be most solicitous for contributions from T1E1.4, we believe that, consistent with Committee T1 procedures, ATIS should ensure that the appropriate forum is working on deployment practices. For instance, several commenters advocate one of the subtending fora of ATIS's Carrier Liaison Committee, the forum most commonly mentioned being its Network Interconnection Interoperability Forum (NIIF). *See, e.g.,* ATIS Comments at 23. BellSouth takes a different position altogether, viewing deployment practices not as policy or technical judgments, but rather as business decisions that should not be subject to overall industry input or oversight. BellSouth "strongly oppose[s] vesting any forum with authority" to develop deployment practices. BellSouth Comments at 30-31. *See also* SBC Comments at 10-11.

[414] *See* 41 C.F.R. § 105-54.201(c) ("[a]dvisory committees are established only if there is a . . . truly balanced membership"). NRIC IV and previous incarnations of NRIC have been composed of CEO-level representatives of approximately 35 carriers, equipment manufacturers, state regulators, and large and small consumers.

[415] FACA, 5 U.S.C. App. 2 § 10(a)(3).

[416] *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4800-01, para. 77. *See also* Sprint Comments at 3.

timely manner that another standards-setting body submits its acceptable standards, NRIC should not delay in issuing recommendations just to await the latecomer's submission. Finally, NRIC's objective and scope of activity will be defined to ensure that it considers principles of fairness and timeliness in its recommendations for resolution of spectrum compatibility and management issues.[417]

191. We are reluctant to intervene in spectrum compatibility and management matters except in cases, such as here, where industry standards bodies have failed to encourage expeditious and competitively neutral deployment of innovative technologies.[418] Not only will NRIC enhance the Commission's role through the advice, recommendations and reports that it provides to the Commission, but it also will be able to identify issues for consideration by industry standards bodies, based on issues that the Commission believes need to be addressed.[419] Through the recommendations and reports that we receive from NRIC, we will evaluate whether T1E1.4 and other industry standards bodies are acting in a manner consistent with the policies that we have determined should underlie spectrum compatibility standards-setting and formation of spectrum management rules and practices.[420] Should we 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 the standards-setting function ourselves.[421] Because of our faith in T1E1.4 and other industry standards bodies going forward,

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[417] Similarly, on an ongoing basis NRIC's topic-specific scope of activity will be framed to ensure that NRIC considers principles of fairness and timeliness in its recommendations for resolution of additional topics that we specify.

[418] *See* NorthPoint Comments at 40-41, 45.

[419] We note that our indirect involvement with industry standards bodies with respect to identification of topics on which we seek recommendations falls far short of "compel[ling] industry bodies to adhere to any requirements we establish for the functioning of such bodies," and thus we need not address further our authority to compel industry bodies in such a manner. *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4802, para. 79.

[420] *See supra* Section V.A. *See also* ALTS Comments at 20-21, 24. In this respect, we reject arguments that we take a more proactive approach towards the industry standards process in general and the standards determined by T1E1.4 in particular. *See* Oklahoma CC Comments at 6 ("the FCC should have greater weight or 'veto' power over the industry representatives [in industry standards bodies] because the FCC will protect all consumers without bias and, at the same time, balance the competing interests of industry"); Rhythms Comments at 15-18; Rhythms Reply Comments at 39-41; Rhythms Oct. 12 *Ex Parte* at 7. Covad asserts that we are the most appropriate forum for advanced services standards-setting, because we have a public interest mandate, and are not driven by the commercial interests which motivate private industry participants. *See* Covad Comments at 48; Covad Sept. 1 *Ex Parte.*

[421] The Commission previously has found that it "has avoided a dominant role in standards-setting as long as the activities of standards bodies do not frustrate the Commission's goals and policies. However, to the extent that such activities do not support public interest goals, it has reserved a role for itself and could play some part in standards development." *Intelligent Networks, Notice of Proposed Rulemaking,* 8 FCC Rcd 6813, 6820 n.64 (1993).

however, we encourage interested competitive LECs to join such bodies and participate in them fully.[422] We are committed to actively monitoring the activities of T1E1.4.[423]

2. Mechanisms for Demonstrating Spectrum Compatibility

192. In the *Advanced Services First Report and Order,* we sought comment on the best means to address spectrum compatibility.[424] One option was through generic PSD masks,[425] but we asked whether using that approach alone might restrict deployment of technologies that otherwise would not harm the network. We also sought comment on whether a calculation-based approach, in addition to a PSD mask-based approach, provides a better and more accurate tool for defining spectrum compatibility.[426]

193. We decline to adopt a federal rule mandating the use of either generic PSD masks or a calculation-based approach.[427] Instead, we will defer to the conclusions to be reached by industry standards setting bodies on this issue.[428] For instance, T1E1.4 currently is working on spectrum management standards that would allow for demonstration of spectrum compatibility using either PSD masks or a calculation-based (analytical) method.[429]

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[422] *See* Sprint Comments at 3 ("the importance of these issues to competition in broadband communications should be ample incentive for future participation at increased levels from newer entrants into the telecommunications marketplace").

[423] This is consistent with previous recommendations of the industry itself through NRIC, which advised the Commission to commit sufficient resources to provide direct monitoring of standardization activities at meetings of industry standards bodies. *See NRIC Interoperability Report* at 186, § 9.4.3. *See also* ALTS Comments at 16-17; Covad Comments at 53; SBC Comments at 9; Rhythms Reply Comments at 40.

[424] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4802-03, paras. 82-83.

[425] As we explain above, PSD masks define the limits on signal power across a range of frequencies. A generic PSD mask establishes spectral compatibility by defining a general purpose mask that could apply to several technologies. Ideally, use of generic PSD masks could expedite deployment of new technologies, because a new technology may be introduced without having to wait for a standards-setting body to approve a specific mask for the new technology.

[426] Unlike a PSD mask-based approach, which is static, a calculation-based approach uses a computational model for evaluating spectrum compatibility in specific situations. *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4803 n.194. With a calculation-based approach, mathematical and computer simulations are used to determine the power characteristics of a technology, and hence, the new technology's compatibility with other technologies. Thus, a calculation-based approach allows for more flexibility in demonstrating the spectrum compatibility of a new technology.

[427] For example, certain incumbent LECs argue that we should *require* the use of PSD masks. *See* BellSouth Comments at 30; SBC Comments at 3.

[428] *See, e.g.,* Oklahoma CC Comments at 8-9. *But see* Rhythms Comments at 16 ("a policy of deference is not best applied to issues of spectrum compatibility").

[429] *See* T1E1.4/99-002R4. Though this document, containing proposed standards on many issues, was defeated narrowly in an August 1999 Committee T1 Letter Ballot, T1E1 still is considering this approach actively. *Id.* at 10-

194. Notwithstanding our abstention from adopting a federal rule governing methods for defining spectrum compatibility, we observe 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. Taken together, these two mechanisms should protect network integrity while maximizing deployment of new competing technologies. Depending on the precise approach used, a calculation-based approach, used in conjunction with or in lieu of generic PSD masks, presents several advantages. First, not only does a calculation-based approach, like generic PSD masks, provide a vehicle for swift introduction of a new technology without incurring delays associated with approval by standards-setting bodies of each individual new technology, but it further enables swift introduction where the technology does not fit within one of the already-approved generic masks. Second, it can help to maximize binder group efficiency through analyzing the interference potential of each loop in a binder group, assigning an aggregate interference limit to the binder group, and then adding loops to the binder group until that limit is met.[430] This second benefit is consistent with our expectation, as we articulated in the *Advanced Services First Report and Order,* that incumbents will manage binder groups "in such a manner so as to maximize the number and types of advanced services that can be deployed."[431] Third, it provides a "double check" of the interference environment.[432] Finally, a calculation-based approach addresses the concerns of those who complain that a PSD mask-based approach alone is overly conservative and restrictive.[433] Thus, although we defer at this juncture to T1E1.4 or other industry standards bodies to determine the best approach with respect to spectrum compatibility, we strongly encourage T1E1.4 to continue on its current course of recognizing both PSD masks and an analytical approach in its spectrum management standard, and to define further how the analytical model leads to deployment rules.

3. Conditions for Acceptability of a Loop Technology for Deployment

195. In the *Advanced Services First Report and Order,* we concluded that, "until long-term standards and practices can be established,"[434] a loop technology should be presumed acceptable for deployment under any one of several circumstances.[435] These circumstances

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12. *See* T1E1.4/99-002R4 at 10, § 4.3.3. T1E1.4's analytical method is contained in Annex A, Method B to the proposed spectrum management standards. *See* T1E1.4/99-002R4 at 12, § 4.3.5.

[430] *See* AT&T Comments at 6-8, 10-13.

[431] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4800, para. 76.

[432] *See* US WEST Comments at 6.

[433] *See* GTE Comments at 9. *But see* Oklahoma CC Comments at 8 ("The OCC does not believe that the establishment of PSD masks would restrict the development of new technologies").

[434] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4796-97, para. 66.

[435] Though we established these presumptions in the spectrum management context, in this order we also apply them to deployment of a loop technology for line sharing. *See supra* Section IV.D.1.b).

include that the technology: (1) complies with existing industry standards;[436] (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.[437] We found that any equipment deployed consistent with at least one of these factors can be connected to the public switched telephone network with reasonable confidence that the loop technology will not significantly degrade the performance of other advanced services, and with reasonable confidence that the technology will not impair traditional voice band services.[438] We also concluded that an incumbent LEC may not deny a carrier's request to deploy 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 voice band services.[439] In recognition of the ongoing process of standards development as well as the ongoing innovation in advanced services technologies that we anticipate and hope will ensue, we now codify rules and clarify certain aspects below.[440]

196. We emphasize that in codifying these rules, we have established a national framework, as contemplated by sections 251 and 252 of the Act,[441] governing when a loop technology is presumed acceptable for deployment on the network. Given the states' role within this framework, we believe it appropriate for states to decide when a LEC has successfully rebutted the presumption of acceptability for deployment, when a proposed deployment does or does not establish a presumption, when a deployment significantly degrades another service, and other issues as set forth below.[442] The state commissions which comment on the *Advanced Services First Report and Order and FNPRM* embrace our decision in the *Advanced Services First Report and Order* to accord to them the task of determining whether a specific technology is acceptable for deployment.[443] We also observe that Congress, in section 706(a) of the 1996

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[436] We reject Rhythms' requested clarification that this criterion include any technology that merely complies with a PSD mask which an industry standards body has developed. *See* Rhythms Comments at 19; Rhythms Oct. 12 *Ex Parte* at 8. Industry standards include additional specifications, such as modulation schemes and electrical characteristics.

[437] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4797, para. 67.

[438] *Id.*, 14 FCC Rcd at 4797, para. 66.

[439] *Id.*, 14 FCC Rcd at 4798, para. 68.

[440] Several commenters express support for these rules. *See, e.g.,* NorthPoint Comments at 34, 36 n.57; Rhythms Comments at 18-20; Rhythms Oct. 12 *Ex Parte* at 5.

[441] *See* 47 U.S.C. §§ 251 and 252. *See also* GTE Comments at 13.

[442] If a particular state commission chooses not to accept one or more of the tasks that we accord to state commissions regarding deployment of advanced services, the aggrieved party may present its claims to this Commission. *See* 47 U.S.C. § 252(e)(5); 47 C.F.R. §§ 51.801 and 51.803.

[443] *See* California PUC Comments at 4 ("there will clearly be a role for the states in resolution of disputes arising from actual local deployment practices"); Oklahoma CC Comments at 10 ("the OCC is both willing and able to

Act, specifically charged this Commission *and each state commission* with taking measures to encourage the deployment of advanced services to all Americans.[444] We will provide further guidance on these matters where requested by a state commission.

197. We reaffirm our 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. Though we recognized that TR28, which defines the technical standards for HDSL, is not a Committee T1 approved standard, we stated that its "universal deployment, however, results in its status as a *de facto* standard."[445] Similarly, in accordance with the second and third criteria outlined above, we grant Rhythms' request that we declare SDSL to be presumed acceptable for deployment.[446] Though, as described below, states will generally have the role of declaring when an advanced services technology is presumed acceptable for deployment by virtue of satisfying the successful deployment criterion,[447] we find that successful deployment of SDSL has been sufficiently widespread that we believe it can be deployed further without appreciable risk of jeopardizing network integrity. Our finding, however, is limited to presuming SDSL acceptable for deployment on a fully unbundled loop. We do not establish here a presumption that SDSL is acceptable for deployment on a shared loop.[448]

a) Successful Deployment Criterion

198. We find the third criterion 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. Moreover, 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.[449] We reject the argument of certain commenters that the third criterion will lead to interference in the network, due to

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arbitrate these types of disputes"); Texas PUC Comments at 5-6 ("Given that it is impossible to predict every deployment scenario and difficulty, state commissions should be allowed to address these [deployment] issues as they arise. . . . The Texas PUC has also chosen to exercise its authority in determining whether a technology significantly degrades the performance of other services.").

[444] *See* Oklahoma CC Comments at 10.

[445] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4797, para. 67.

[446] *See* Letter from Stephanie Joyce, Blumenfeld & Cohen, to Magalie R. Salas, Secretary, Federal Communications Commission, CC Docket No. 98-147, Attach. (filed Sept. 2, 1999).

[447] *See infra* Section V.B.3.a.

[448] *Compare supra* Section IV.D.1.b.

[449] *See* Covad Comments at 50; Rhythms Comments at 19-20.

differing mixes of deployed technologies in local networks.[450] Though protecting network integrity is our utmost concern, we must do so in a manner that also fulfills our statutory mandate to promote competition and innovation in advanced services. We conclude 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.[451]

199. 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.[452] 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 the technology's standardization or other approval by an industry standards body or this Commission irrebuttable.[453] We reiterate, however, that a LEC may not deny a carrier's request to deploy technology that is presumed acceptable for deployment under one or more of the circumstances set forth above, unless the LEC first successfully rebuts the presumption of acceptability before the relevant state commission.[454] Similarly, a carrier should seek redress from the relevant state commission where it encounters opposition from the incumbent LEC to its claim that the proposed deployment falls within the presumption of acceptability.[455] We expect LECs to act in good faith in response to carriers' claims that their requested technology deployments fall within the presumption of acceptability. A LEC's failure to act in good faith in response to a carrier's request to deploy a technology

[450] *See, e.g.,* BellSouth Reply Comments at 28-30; Sprint Reply Comments at 16-19. *But see* NorthPoint Comments at 34 (asserting that consistent with the presumptions of acceptability for deployment, technologies have been, and continue to be, deployed "without incident," thus vindicating our previous tentative conclusion that a significant degradation test is sufficient to prevent actual interference and disruption of services in the network).

[451] *See* Covad Comments at 51.

[452] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4798, 4800, paras. 68, 76.

[453] *See* NAS Comments at 18. Though a LEC may attempt to rebut the presumption that a technology is acceptable for deployment in a specific situation by claiming that deployment of the technology will cause interference in that situation, the designation by this Commission of a technology as generally presumed acceptable for deployment is irrebuttable.

[454] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4798, para. 68.

[455] Where the technology that the carrier seeks to deploy does not conform to existing industry standards and has not been approved by an industry standards body, the Commission, or a state commission, the burden is on the requesting carrier to demonstrate 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. *Id.,* 14 FCC Rcd at 4798, para. 69. Where the carrier asserts, however, that the technology does conform to existing industry standards or has been approved by an industry standards body, the Commission, or a state commission, the burden rests with the LEC to prove that the deployment does not fall within the presumption of acceptability.

constitutes a violation of our rules implementing section 251 of the Act.[456]

200. Consistent with the *Advanced Services First Report and Order*,[457] we leave it to the states to determine the specific criteria under which a technology will be deemed successfully deployed under the third presumption for acceptability, above. Leaving this determination to the states is advantageous because states have more familiarity with local network conditions, and thus should be able to gauge best an appropriate definition for successful deployment that suits local network conditions.[458] The widely divergent proposals for a national definition that are contained in the record before us in this proceeding further lead us to the conclusion that at this juncture, determining the definition of successful deployment at the state level will be most fair both to carriers seeking to deploy new technologies and to LECs.[459] Because one of our goals in this proceeding is to develop rules to address long-term spectrum management concerns,[460] we may revisit this issue and establish national criteria if a record is created showing that the criteria utilized by certain states in making determinations of successful deployment are leading to an overly preclusive or overly permissive presumption of successful deployment.

b) Definition of "Significantly Degrade"

201. In the *Advanced Services First Report and Order*, we defined "significantly degrade" as "an action that noticeably impairs a service from a user's perspective."[461] In adopting this definition, we recognized that a certain degree of interference is permissible and harmless. We also acknowledged that this definition is "subject to debate," and for the time being left it to the states to determine when a technology significantly degrades the performance of other services.[462] In the accompanying *FNPRM*, we sought comment on how to define "significantly degrade" more precisely, so as to ensure that consumers have the broadest

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[456] *See* 47 C.F.R. §§ 51.301(a) and (c)(6), 51.305(e).

[457] *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4798, para. 69.

[458] *See* Oklahoma CC Comments at 11 ("the OCC, as the agency which regulates the telecommunications industry in Oklahoma, is the entity most informed about the realities of competition in the local exchange market in Oklahoma").

[459] *Compare, e.g.,* Letter from Lincoln E. Brown, Director – Federal Regulatory, SBC Telecommunications, Inc., to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 98-147, Attach. (filed Aug. 20, 1999) (technology is successfully deployed when, inter alia, it has been deployed over a minimum of 200 circuits, the deployment constitutes a minimum of five percent penetration level in at least one binder group, and the deployment lasts a minimum of 90 days with no unresolved interference-related service complaints from end users or other carriers) *with* Rhythms Oct. 12 *Ex Parte* at 8 (technology is successfully deployed if deployed in one central office on at least 25 loops for 30 days without interference).

[460] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4805, para. 90.

[461] *Id.*, 14 FCC Rcd at 4797 n.166.

[462] *Id.*

selection of services from which to choose without harming the network.[463]

202. Although we recognize the value of objective criteria to measure "significant degradation," based on the record before us, we are unable to adopt an objective standard for determining whether a technology causes "significant degradation." We believe that an objective measurement of "significantly degrade" should account for reductions in a service's distance (reach) and/or speed (rate), among other factors, but parties to the proceeding have not adequately proposed specific numerical parameters for an objective standard.[464] Accordingly, we reaffirm the subjective definition of "significantly degrade" that we adopted in the *Advanced Services First Report and Order*.[465] We believe, however, that it is in all carriers' interest only to deploy new technologies that will not cause service compatibility problems. Moreover, we believe that deployment of advanced services according to approved PSD masks and/or calculation-based standards adopted by industry standards bodies such as T1E1.4 should prevent noticeable service degradation in most cases.[466] Nevertheless, we encourage industry standards bodies to continue addressing the issue of establishing objective criteria to measure "significant degradation."[467]

203. We also emphasize the "significance" component of the "significantly degrade" test. As binder groups fill up, service rates may decrease. Carriers must be realistic about the service rates that they are marketing. Moreover, as we expressed in the *Advanced Services First Report and Order*, "[w]hile we recognize that some minimal interference may develop as new services are introduced, we believe that it is in the public's best interest to encourage the timely deployment of advanced services."[468] All providers should recognize that cooperation is essential in this shared environment.[469]

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[463] *Id.*, 14 FCC Rcd at 4804, para. 88.

[464] SBC, for example, attempts to provide a multi-component definition, which includes, inter alia, "[m]aterially reducing the distance over which the service can be provided (i.e., significantly reducing its availability and reach to prospective or existing customers)." SBC Comments at 6. The key, of course, is pinpointing what constitutes a material reduction in distance, which essentially brings the question back to square one. Covad advocates an objective definition that assures that deployed technologies do not exceed specific tolerable noise levels, but Covad also does not detail what the threshold noise levels should be. Covad Comments at 48. *See also* Sprint Comments at 6.

[465] *See, e.g.*, ALTS Comments at 20 n.48; GTE Comments at 14; NorthPoint Comments at 35 ("By focusing on the end user's perception, the significant degradation test balances the interest in promoting new technology with the protection of existing services"); Rhythms Reply Comments at 40.

[466] *See supra* Section V.B.2.

[467] *See* Sprint Comments at 6 ("it would be best to attempt to achieve industry consensus on such a definition through the T1E1.4 committee").

[468] *Id.*, 14 FCC Rcd at 4797 n.166.

[469] *Id.*, 14 FCC Rcd at 4800-01, para. 77.

204. Some incumbent LECs argue that they require certain information on a requested deployment in order to be able to assess properly the prospects of the deployment significantly degrading the performance of other services.[470] In the *Advanced Services First Report and Order*, we required incumbent LECs to disclose to requesting carriers information with respect to the number of loops using advanced services technology within the binder and type of technology deployed on those loops. We also required incumbent LECs to disclose to requesting carriers information with respect to the rejection of the requesting carrier's provision of advanced services, together with the specific reason for the rejection.[471] Furthermore, we required incumbent LECs to make available to competitive LECs intending to provide service in an area the procedures and policies that the relevant incumbent LEC uses in determining which services can be deployed.[472] We affirm and codify these policies in this Order. Consistent with the information disclosure requirements that we applied to incumbent LECs in the *Advanced Services First Report and Order*, we agree that competitive LECs must provide to incumbent LECs information on the type of technology that they seek to deploy, including Spectrum Class information where a competitive LEC asserts that the technology it seeks to deploy fits within a generic PSD mask.[473] We further agree 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, 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.[474] We emphasize that incumbent LECs must protect the proprietary rights of deploying carriers, and may use this information for network purposes only, without disclosing who is deploying what advanced services technologies on particular binders.[475] We believe that the benefits of applying such information disclosure requirements to competitive LECs outweigh any burdens,

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[470] For instance, SBC maintains that we should require competing carriers to provide Spectrum Class identification information with their loop orders. *See* SBC Comments at 4-6. *See also* GTE Comments at 14; Sprint Comments at 6.

[471] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4799, para. 73. With respect to PSD mask information in particular, SBC argues that provision by competitive LECs of such information is necessary for incumbent LECs to meet their disclosure obligations concerning the type of technologies deployed on loops. SBC Comments at 4-5. *See also* Sprint Comments at 4-5, 6.

[472] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4799, para. 72.

[473] We agree with Rhythms that where a competitive LEC asserts that the technology it seeks to deploy fits within a generic PSD mask, it need not provide to the incumbent LEC the speed or power at which the particular technology will be transmitted, because the incumbent LEC will be able to discern this information from the PSD mask that the competitive LEC identifies. *See* Rhythms Comments at 27. We add, however, that 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 signal will be transmitted.

[474] SBC Comments at 5. Thus, we reject Rhythms' stipulation that competitive LECs may change deployed technologies without delay. *See* Rhythms Comments at 27. As with initial deployment of a technology by a competitive LEC, the incumbent LEC must be afforded an opportunity to rebut the presumption of acceptability for deployment of a replacement technology, where such presumption applies.

[475] *See* Rhythms Comments at 27; Sprint Comments at 6.

particularly because we believe that the provision of such information is integral to a claimed presumption of acceptability anyway. Moreover, we anticipate and expect that the provision of such information by carriers will minimize conflicts over whether the proposed deployment falls within the presumption of acceptability.

205. In the *Advanced Services First Report and Order*, we required that a carrier that claims its services are being significantly degraded by another carrier's services "must notify the causing carrier and allow that carrier a reasonable opportunity to correct the problem."[476] Sprint requests that we clarify that incumbent LECs are in all instances the initial point of contact for service degradation disputes among competitive LECs.[477] Various incumbent LECs contend that they should not have to act as clearinghouses for those disputes.[478] We confirm 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. We recognize, of course, 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.[479] 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. The incumbent LEC must comply with any such request in the same time frame that the incumbent LEC employs for its own operations.[480]

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[476] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4800, para. 75.

[477] Sprint raises this request in a petition for reconsideration of the *Advanced Services First Report and Order*. Sprint Petition at 6-7; *see* AT&T Comments on Sprint Recon. Petition at 2-3. Because we find this issue relevant to spectrum management rules, we address it here.

[478] *See* Ameritech Comments on Sprint Recon. Petition at 7; Bell Atlantic Comments on Sprint Recon. Petition at 7-10; BellSouth Comments on Sprint Recon. Petition at 12; SBC Comments on Sprint Recon. Petition at 13-14.

[479] For this reason, we also reject the request that Sprint poses in comments on the *Advanced Services First Report and Order and FNPRM,* that we allow the incumbent LEC unilaterally to suspend service from the carrier causing interference, because this would be tantamount to allowing incumbent LECs to suspend all service deployment suspected of causing or contributing to degradation of other service. *See* Sprint Comments at 7. If the Commission were to allow such suspension of service while the incumbent LEC experiencing service degradation searched to ascertain the proper culprit(s), several carriers may be forced to suspend the service deployment in question, and may lose customers or be forced to undergo costly remedial measures which may prove subsequently to have been unnecessary. *Compare infra* Section V.B.4. (where we decline to establish a national sunset period for known disturbers, out of concerns that a blanket sunset period may lead to unnecessary replacement of known disturbers, and lead further to unnecessary network disruption and forcing of carriers to undertake exorbitant replacement expenditures). We find that this scenario provides fertile ground for abuse. Therefore, we reiterate, as we do below, that incumbent LECs must comply with the processes that we set out, rather than taking unilateral action against allegedly interfering competitive LEC data services. *See infra* Section V.B.3.c).

[480] *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4799, para. 72.

c) Interference Dispute Resolution

206. In the *Advanced Services FNPRM*, we asked commenters how best to resolve disputes arising out of claims that a particular technology is significantly degrading the performance of other services. We also sought comment on whether a dispute resolution process should rely on an outside party as an arbitrator, such as the state commission, the FCC, or a neutral third party, or whether the process simply should provide the rules by which players must conform.[481]

207. As we held in the *Advanced Services First Report and Order*, a carrier must establish before a state commission that a particular technology significantly degrades another service.[482] We are concerned that some incumbent LECs may plan to take unilateral action against allegedly interfering competitive LEC data services, rather than comply with the processes that we set out in the *Advanced Services First Report and Order*.[483] We emphasize, therefore, that incumbent LECs are required to follow these procedures. Specifically, as we restate above, 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.[484]

208. We reaffirm 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."[485] We

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[481] *Id.*, 14 FCC Rcd at 4804, para. 88.

[482] *Id.*, 14 FCC Rcd at 4797 n.166. *See* California PUC Comments at 4 ("[t]he state commissions are the appropriate entities to develop a record and resolve disputes based on the pivotal issue of whether deployment of advanced services 'significantly degrades' the performance of other advanced services and traditional voice services for end users"); ALTS Comments at 20; NorthPoint Comments at 36 n.57.

[483] *See, e.g.,* Letter from Kathleen B. Levitz, Vice President – Federal Regulatory, BellSouth Corporation, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 98-147, Attach., at 4 (filed Sept. 9, 1999) (BellSouth Sept. 9 *Ex Parte*) ("Splitters are necessary to allow [an incumbent LEC] to disconnect data services which significantly degrade voice services (after notice has been given)"); GTE Comments at 13 n.22 (where a competitive LEC's service interferes with GTE's, "GTE must be able to disconnect the [competitive LEC's] loop and subsequently notify the [competitive LEC] of the problem"). *See also* Sprint Comments at 7.

[484] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4800, para. 75. We note that because the incumbent LEC manages the binder group, subject to Commission rules and policies, it has standing to present claims of significant degradation of any other service in the binder group, not merely services that the incumbent LEC itself is deploying.

[485] *Id.*, 14 FCC Rcd at 4798, para. 68. *See* NAS Comments at 19. We note that this rule addresses the concerns of

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,[486] that service shall not prevail against the newly deployed technology.[487] 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. As we discuss more fully below, in the *Advanced Services First Report and Order and FNPRM* we solicited comment on the appropriate disposition of known disturbers, and we specifically asked whether we should establish a sunset period for known disturbers and whether we should require carriers to replace known disturbers with new and less interfering technologies.[488] Thus, we find that this exception implicates, and is consistent with, other policies that we adopt in this order, pursuant to which, as discussed in detail below, a known disturber may be segregated or phased out in its entirety.[489]

209. We are aware that T1E1.4 currently is considering a "guarded services" approach that would stand as an alternate to the policies that we set forth here.[490] Such an approach would designate automatic winners in the event of interference disputes.[491] Some competitive LECs have raised concerns with respect to this proposed approach. Chief among these concerns is that the guarded services approach is blatantly discriminatory, protecting technologies favored by incumbent LECs at the expense of newly-developed technologies favored by competitive LECs.[492] There also are several other concerns that these commenters raise.[493] First, a guarded,

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incumbent LECs that analog voice services have precedence over data services such as xDSL if the data services interfere with the voice services in any manner. *See* BellSouth Sept. 9 *Ex Parte* at 5; SBC July 28 *Ex Parte*. *But see* Rhythms Oct. 12 *Ex Parte* at 3 n.6 (asserting that this is a non-issue, because "[t]here is no danger of DSL services creating harmful interference with POTS").

[486] *See infra* Section V.B.4. A "known disturber" is an advanced services technology that is prone to cause significant interference with other services deployed in the network.

[487] In accordance with the *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4798, para. 69, this exception applies only where the newly deployed technology satisfies at least one of the criteria for a presumption that it is acceptable for deployment.

[488] *Id.*, 14 FCC Rcd at 4804, para. 87.

[489] *See infra* Section V.B.4.

[490] Though this approach was part of Draft Proposed Standard T1E1.4/99-002R4, which recently was defeated narrowly in Committee T1 Letter Ballot LB 785, the concept still is being considered actively by T1E1.4.

[491] *See* Committee T1 Letter Ballot LB 785, T1E1.4/99-002R4, at 8, § 4.3.1.

[492] *See* NorthPoint Comments at 43; NorthPoint Reply Comments at 49-52; Covad Sept. 1 *Ex Parte* (Covad argues further that the guarded services approach would enshrine a preference for ADSL deployed by incumbent LECs, thereby thwarting deployment of SDSL by competitive LECs); Rhythms Oct. 12 *Ex Parte* at 7.

[493] *See* Covad Sept. 1 *Ex Parte*; Rhythms Oct. 12 *Ex Parte* at 7.

typically incumbent LEC-favored service, need not be deployed, yet merely the threat of its deployment may block deployment of a non-guarded, typically competitive LEC-favored xDSL technology, which could be deployed on a loop prior to deployment of the guarded service, but which then would need to be removed if interference ensued upon the subsequent deployment of the guarded service. Second, an xDSL technology that is spectrally identical to a guarded service yet not identified as "guarded" would not share the same protections as guarded services. Third, the guarded services approach does not define who prevails in interference disputes between guarded services. Fourth, T1E1.4 has proposed a known disturber, analog T1, and a technology that has yet to be deployed but that is "strongly supported" by incumbent LECs, HDSL-2,[494] to become guarded. Fifth, the guarded services approach injects T1E1.4 into policy-setting, contrary to Committee T1 procedures.[495]

210. We share many of these concerns about a guarded services approach. 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*.[496] The policies that we reiterate and adopt here as rules with respect to interference dispute resolution protect new technologies against otherwise guarded technologies having carte blanche to be deployed after-the-fact and cause interference.[497] In addition, the exception that we carve out above ensures that noisier technologies that are at or near the end of their useful life cycle do not perpetually preclude deployment of newer, more efficient and spectrally compatible technologies. Though this exception pertains only to Commission-declared known disturbers, we encourage the industry to enhance the "living" nature of these policies and rules by voluntarily removing from deployment older, less efficient technologies which nonetheless do not rise to the level of a known disturber.

211. For all of these reasons, we find that the policies and rules that we reiterate and otherwise set forth here with respect to interference dispute resolution are superior to a guarded services approach, and these policies and rules, rather than a guarded services approach, will guide states in the resolution of interference disputes. We believe that our policies here strike the appropriate balance between protecting the integrity of the network and promoting competitively neutral deployment of innovative technologies. In addition, the policies that we articulate in this section and codify incorporate elements of a "first-in-time" concept that is the mainstay of interference protection within many other communications services.[498] Thus, we apply to a new

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[494] *See* Rhythms Oct. 12 *Ex Parte* at 7.

[495] *See supra* Section V.B.1.

[496] *See* NorthPoint Comments at 44.

[497] *See* Rhythms Oct. 12 *Ex Parte* at 7 (observing that all guarded services are acceptable for deployment without restrictions).

[498] For instance, we have stated with respect to the Multipoint Distribution Service and the Instructional Television Fixed Service, which together are referred to commonly as "wireless cable," that "[i]nterference protection rights within these services are based on a 'first in time, first in right' philosophy." *See Amendment of Parts 1, 21 and 74*

medium well-established policies concerning interference dispute resolution. These policies and rules 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.[499] At the same time, these policies and rules permit the industry to work further towards deriving solutions, as described in the preceding paragraph. Though we do not agree with the concept of guarded services, particularly as it pertains to interference dispute resolution, we believe that the spectrum management work currently being performed in T1E1.4 will prove quite useful in ensuring the evolution of advanced services deployment in a manner that safeguards spectrum compatibility.[500]

4. Binder Group Management

212. In the *Advanced Services First Report and Order and FNPRM*, we asked commenters to consider how to maximize the deployment of new technologies within binder groups while minimizing interference. We sought comment on the development of xDSL binder group administration practices, including specifications on the types and numbers of technologies that can be deployed within a binder group. We also specifically solicited comment on the practice of segregating services based on the technology. As an example, we recognized that incumbent LECs currently assign analog T1 to separate binder groups from other technologies, because analog T1 is a disturber.[501]

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to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions; Request for Declaratory Ruling on the Use of Digital Modulation by Multipoint Distribution Service and Instructional Television Fixed Service Stations, MM Docket No. 97-217, Report and Order on Reconsideration, FCC 99-178 (rel. July 29, 1999). *See also Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services*, CC Docket Nos. 92-115, 94-46, RM 8367, CC Docket No. 93-116, Report and Order, 9 FCC Rcd 6513, 6558 (1994) (explaining that under 47 C.F.R. § 22.371, Public Mobile Services licensees who construct or modify towers in the immediate vicinity of AM broadcast stations are obligated to take all necessary steps to correct interference problems caused by the new or modified construction); *Sudbrink Broadcasting of Georgia*, 65 FCC 2d 691, 692 (1977) (in interference dispute between two broadcast stations, "[i]t is clear that the 'newcomer' is responsible, financially and otherwise, for taking whatever steps may be necessary to eliminate objectionable interference"); 47 C.F.R. § 74.703(d) ("When a low power TV or TV translator station causes interference to a CATV [cable] system . . . the earlier user, whether cable system or low power TV or TV translator station, will be given priority on the channel, and the later user will be responsible for correction of the interference"); 47 C.F.R. § 101.105 (establishing interference protection criteria under which fixed microwave services must protect existing or previously applied for systems).

[499] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4799, para. 71.

[500] *See* SBC Comments at 4.

[501] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4803-04, para. 86. Rhythms also describes other forms of segregation of analog T1, such as separation of transmit and receive copper pairs into separate binder groups, and the use of binder groups on the outside portion of the feeder cable. Rhythms Comments at 24; Rhythms Oct. 12 *Ex Parte* at 2 n.5.

213. We conclude 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.[502] Several commenters argue that interference protection techniques, including generic PSD masks and/or a calculation-based approach,[503] should go a long way towards ensuring the integrity of the network, if not completely supplanting the need for any other form of binder group management.[504] Most also recognize, however, that some technologies are known disturbers, which are prone to cause significant interference with other services deployed in the network. We believe 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.[505]

214. Currently, the only technology that we find causes interference with sufficient persistence to rise to the level of a known disturber is analog T1.[506] By indicating generally that technologies we designate as known disturbers may be segregated, however, rather than limiting the segregation technique to analog T1, we seek to minimize interference with future technologies.[507] 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, we will decide which technologies should be considered as known disturbers.[508]

215. In the *Advanced Services First Report and Order and FNPRM*, we specifically sought comment on the development of binder group management procedures allowing for deployment of xDSL-based services in a nonrestrictive manner.[509] Numerous competitive LECs

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[502] *See* NorthPoint Comments at 35; Rhythms Oct. 12 *Ex Parte* at 2-3.

[503] *See supra* Section V.B.2.

[504] *See* Bell Atlantic Comments at 19-20; Rhythms Reply Comments at 33; Rhythms Oct. 12 *Ex Parte* at 3-4. As we stated above, use of a calculation-based interference protection approach also may help particularly in maximizing service deployment, including new technologies, in a binder group. *See supra* Section V.B.2.

[505] Though incumbent LECs may segregate known disturbers at their option, we do not require them to do so. *But see* Rhythms Reply Comments at 35-36 (requesting that we require segregation of analog T1). Incumbent LECs also have other options with respect to disposition of known disturbers, such as replacing them with new technologies.

[506] *See* BellSouth Comments at 31; Covad Comments at 50; NorthPoint Comments at 38; Rhythms Reply Comments at 35-36; Rhythms Oct. 12 *Ex Parte* at 5. We recognize that repeatered HDSL poses many of the same problems as analog T1. Therefore, we hope that T1E1.4 will address the spectrum management issue of repeatered HDSL in the near future.

[507] *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4803, para. 86.

[508] Going forward, 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 47 C.F.R. § 1.2.

[509] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4803, para. 86.

continue to express concern that if we vest in incumbent LECs the 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.[510] To illustrate, Covad and Rhythms argue vehemently that SBC's "Selective Feeder Separation" (SFS) technique is anticompetitive.[511] Covad and Rhythms assert that under SFS, SBC relegates competitive LEC non-ADSL loops to spectrally "dirty" binder groups, resulting in degradation of the potential bandwidth on those competitive LEC loops, and SBC over-reserves binder groups dedicated to ADSL, leading to exaggerated claims of spectrum exhaustion and denial of competitive LEC requests to deploy their own advanced services technologies.[512] They also question the technical effectiveness of segregation practices, contending that cable splices during original installation and subsequent maintenance activities compromise binder group integrity, so that pairs carrying xDSL services actually may change binder groups at various points in the cable run.[513]

216. We are persuaded that, for the reasons advanced by Covad and Rhythms, 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.[514] Because we currently do not determine ADSL to be a known disturber,[515] we find

[510] *See* Covad Comments at 45-47; Rhythms Comments at 23 (binder group management "is generally employed in a pernicious manner as a means for [incumbent LECs] to limit consumer choice of xDSL services and preserve priority for their own ADSL deployment"); Rhythms Oct. 12 *Ex Parte* at 1-2. *See also Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4803-04, para. 86.

[511] *See, e.g.,* Rhythms Oct. 12 *Ex Parte* at 3 (SFS is "simply a means of perpetrating anticompetitive conduct in the name of network safety"). SFS is a binder group management technique that segregates ADSL in the feeder plant. *See* SBC Comments at 8-9. *See also* Sprint Comments at 4 (advocating that different technologies be segregated into different binder groups, and maintaining that "the greatest potential for cross-talk and other interference within binder groups lies in the feeder cable closest to the central office, rather than the distribution cable from an intermediate point of concentration to end-user premises").

[512] Covad Comments at 45-46; Rhythms Oct. 12 *Ex Parte* at 4-5. We note that such practices run afoul of our expectation that incumbents will manage binder groups in such a manner so as to maximize the number and types of advanced services that can be deployed. *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4800, para. 76. *See also* NorthPoint Comments at 39 ("binder management may be an effective tool to maximize the utilization of the network, provided that it is administered on an efficient and nondiscriminatory basis").

[513] In support of their view that the reliability of segregation is questionable, Covad and Rhythms both cite to Bell Atlantic's February 1999 contribution to T1E1.4, which Rhythms claims "actively rejects" the validity of segregation practices. *See* Rhythms Oct. 12 *Ex Parte* at 4. *See also* Covad Comments at 46 (citing Bell Atlantic, "Binder Group Segregation is not Feasible," T1E1.4/99-018 (Feb. 1999)); BellSouth Comments at 28 n.44; BellSouth Reply Comments at 31 ("BellSouth does not support SBC's practice of binder group management").

[514] Nevertheless, if an incumbent LEC segregates a known disturber in a manner such that the anti-competitive effects meet or exceed the interference protection benefits of segregating the disturber, the relevant state commission may choose to sunset the deployment of the disturber or apply another remedial approach towards disposition of the disturber.

[515] *But cf.* SBC Comments at 8 (ADSL is a "major interferer" with other xDSL technologies, but creates little interference with itself).

that SBC may not implement SFS, and we order that SBC dismantle any currently existing SFS implementations. Furthermore, any carrier currently implementing any binder group management techniques that we prohibit, including SFS, must discontinue and dismantle such implementations within 60 days after the release of this order.[516] We emphasize that no carrier may implement any form of binder group management other than use of interference protection techniques and segregation of technologies that this Commission declares to be known disturbers. 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.[517]

217. Disposition of Known Disturbers. In the *Advanced Services First Report and Order and FNPRM*, we sought comment on whether we should establish a grandfathering process for interfering technologies, and asked whether the Commission should establish a sunset period for services such as analog T1. We further sought comment on whether carriers should be required to replace analog T1 with new and less interfering technologies, and, if so, what time frame would be reasonable.[518] The commenters are divided between those who urge that we establish a three-year sunset period for known interfering technologies, particularly singling out analog T1,[519] those who advocate that disposition of known disturbers be handled by the states,[520] and those who maintain that such disposition should be left to market forces or directed by incumbent LECs.[521]

218. We conclude that the states should determine disposition of known interfering technologies. Consistent with the national policy framework enunciated in this order of encouraging the competitive deployment of advanced services, states may select one or more of several approaches towards disposition of known disturbers. For instance, a state first could allow for segregation of the disturber by the incumbent LEC, as we set forth above with respect to binder group management.[522] If the disturber still interferes or precludes deployment of new and less interfering technologies, the state then could establish a sunset period for it. With respect to new deployment of designated known disturbers, the state could use its enforcement mechanisms to block new, interfering services, such as analog T1, where their deployment constitutes an anticompetitive practice. These are merely a few examples of several approaches that states can take in their own discretion towards new deployment of known disturbers and disposition of disturbers that already have been deployed in the network.

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[516] *See* Rhythms Comments at 26.

[517] *See* Rhythms Oct. 12 *Ex Parte* at 5.

[518] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4804, para. 87.

[519] *See, e.g.,* ALTS Comments at 24; Covad Comments at 50; Rhythms Oct. 12 *Ex Parte* at 5.

[520] *See, e.g.,* Oklahoma CC Comments at 9.

[521] *See, e.g.,* BellSouth Comments at 31; GTE Comments at 11-12; SBC Comments at 11-12; Sprint Comments at 5.

[522] *See* Oklahoma CC Comments at 9; NorthPoint Comments at 39.

219. We find leaving disposition of known interfering technologies to the states preferable to establishing a national sunset period for known disturbers in this proceeding. We are 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.[523] In addition, as we acknowledged in the *Advanced Services First Report and Order and FNPRM*, carriers have a substantial base of analog T1 in deployment, and in some areas it provides the only feasible high-speed transmission capability.[524] We also recognized that transitioning customers to less interfering technologies may disrupt service for subscribers.[525] Thus, placing disposition of known disturbers in the hands of the states, who are best equipped to assess the impact of such disturbers on specific areas,[526] strikes the appropriate balance between the "competing goals of maximizing noninterference between technologies and not interfering with subscribers' existing services."[527] 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.

220. As we stated in the *Advanced Services First Report and Order and FNPRM*, newer technologies may be able to provide the end user with the same amount of bandwidth while causing less interference with other services.[528] We anticipate that few carriers will choose to deploy analog T1, or any other technology that we declare ultimately to be a known disturber, because of the existence of newer technologies that are more efficient and compatible in most cases, and because the deployment of a known disturber could be subject to a state mandated sunset or other measure, such as an enforcement proceeding. Nevertheless, we reiterate our strong belief that industry should discontinue deployment of known disturbers.[529] Likewise, we continue to emphasize that carriers should, to the greatest extent possible, replace known

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[523] For example, SBC's subsidiary Pacific Bell estimates costs in excess of $300 million to replace all analog T1 pairs in California alone. SBC Comments at 12. Similarly, GTE estimates that it would cost approximately $400 million to replace all analog T1 in its network. GTE Comments at 11-12 n.18. SBC also argues that binder group administration techniques are largely sufficient to manage harmful interference due to analog T1 services. *See* SBC July 28 *Ex Parte*.

[524] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4804, para. 87. *See also* SBC Comments at 11; BellSouth Reply Comments at 32-33.

[525] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4804 n.199. *See* also SBC Comments at 12.

[526] *See* Oklahoma CC Comments at 9 ("Considering that the status and nature of technology deployment varies among states, the OCC believes that individual states are better suited to assess the necessary processes and timeframes for grandfathering current technologies").

[527] *See Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4804 n.199.

[528] *Id.*

[529] *Id.*, 14 FCC Rcd at 4800, para. 74.

disturbers, including analog T1, with new and less interfering technologies.[530] We will continue to monitor the disposition of known interfering technologies as it evolves in the states.

VI. OTHER ISSUES

A. State Authority to Enact Additional Line Sharing Requirements

1. Background

221. In the *FNPRM*, we tentatively concluded that nothing in the Act, our rules, or case law precludes states from mandating line sharing, regardless of whether the incumbent LEC offers line sharing to itself or others, and regardless of whether it offers advanced services. We sought comment on that tentative conclusion.[531] Commenting state regulatory agencies advise that we should not preempt states from enacting line sharing requirements.[532] Other commenters, however, argue that we should preempt state authority over line sharing.[533]

222. In the *Local Competition Third Report and Order*, we determined that the 1996 Act permits state commissions to establish access obligations consistent with the Commission's national rules. We also outlined "compelling policy reasons" for not removing elements from the national list on a state-by-state basis. In particular, we noted that disparate state regulations could substantially undermine the reasons for enacting national rules in the first instance, such as the importance of regulatory certainty and national consistency to competitors seeking to roll out new services on a national scale.

2. Discussion

223. In conformance with the rule established in the *Local Competition, Third Report and Order*, we do not permit the states to reduce the unbundling obligations established in this order. As with the presumption of acceptability for deployment of a loop technology on the network,[534] in this order we establish a national framework governing the obligations of

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[530] *Id. See* Oklahoma CC Comments at 9; GTE Comments at 12 n.19 ("GTE uses HDSL for new HiCap service and, through attrition, will remove [analog] T1 technology from its network"); Sprint Comments at 5-6 (in the case of Sprint's incumbent LEC operations, analog T1 lines "are being removed through gradual attrition. . . . It also may be noted that as [incumbent LECs] begin to deploy their own xDSL offerings, they will have a heightened self-interest in replacing older technologies such as [analog T1] that could cause interference with their new service offerings").

[531] *Advanced Services First Report and Order and FNPRM,* 14 FCC Rcd at 4808, para. 98.

[532] *See generally,* California PUC Comments at Comments at 1-3 (describing the California PUC's efforts to implement line sharing in California); Oklahoma CC Comments at 22 (arguing that state commission should be allowed to implement more stringent standards if there is a need); Texas PUC Comments at 5 (arguing that the Commission should continue to allow states to develop deployment guidelines at their discretion).

[533] *See generally,* ALTS Comments at 8-9; Covad Comments at 7, n.12 (arguing against the proposal to permit incumbents to demonstrate to the state commission that line sharing on a particular line would interfere with analog voice service on that line).

[534] *See supra* Section V.B.3.

incumbent LECs to unbundle the high frequency portion of the loop. States may enact additional or modified unbundling requirements only to the same extent that we permit the states to modify the unbundling requirements in the *Local Competition Third Report and Order*.[535] 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.[536]

224. Moreover, we decline to exempt rural incumbent LECs from our line sharing unbundling obligation. We note, however, that states retain the authority pursuant to section 251(f) to exempt certain rural LECs from all section 251 obligations.

225. It is impossible to predict every deployment scenario or the difficulties that might arise in the provision of the high frequency loop spectrum network element. States may take action to promote our overarching policies, where it is consistent with the rules established in this proceeding. We believe that this approach will permit the states to benefit from the informed debate on the record in this proceeding, and will promote consistency in federal and state regulations.

B. Takings

226. U S WEST claims that line sharing mandated by the Commission constitutes a physical taking of incumbent LEC property.[537] Specifically, US WEST argues that the *Gulf Power* decision[538] holds that the right-of-way sharing on utility poles mandated by the 1996 Act constitutes a physical taking. US WEST claims that the requirement to provide access to unbundled high frequency spectrum on the local loop also constitute a physical taking, for which the incumbent LEC is entitled to just compensation, and for which the United States may be liable.[539] We note at the outset that unbundling the high frequency spectrum of the local loop is a network element under 251(c)(2) and 251(d)(3) conforms to the Congressional intent for the 1996 Act. Moreover, we disagree with US WEST's characterization that declaring the high frequency portion of the local loop to be an UNE results in a physical taking. As we have previously 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.[540] Requesting carriers are simply permitted to send their communications

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[535] *Local Competition Third Report and Order*, at para. 153-161.

[536] *See* 47 U.S.C. § 253(a)-(d).

[537] US WEST Oct. 7 *Ex Parte*.

[538] *See Gulf Power Co. v. United States*, 998 F. Supp 1386 (N.D. Fla. 1998), *aff'd*, 187 F.3d 1324 (11th Cir. 1999) (*Gulf Power*).

[539] US WEST adds that the requirement to provide unbundled loops established in the *Local Competition Third Report and Order*. US WEST Oct. 7 *Ex Parte*. *See Local Competition Third Report and Order*, at para. 182.

[540] *Local Competition First Report and Order*, 11 FCC Rcd at 15631, para. 258.

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.

227. Specifically, in *Gulf Power*, the Eleventh Circuit held that although the 1996 Act's mandatory access provisions with regard to utility poles effect a *per se* taking of property under the Fifth Amendment, those provisions are not facially unconstitutional because they provide a constitutionally adequate process to ensure just compensation.[541] Thus, we conclude 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.

VII. PROCEDURAL MATTERS AND ORDERING CLAUSES

228. Accordingly, IT IS ORDERED that, pursuant to the authority contained in Sections 1-4, 7, 10, 201-205, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 157, 160, 201-205, 251-254, 256, 271, and 303(r), this *Third Report and Order* IS ADOPTED,

229. IT IS FURTHER ORDERED that Part 51 of the Commission's Rules, 47 C.F.R. Part 51, IS AMENDED, as set forth in Appendix B hereto.

230. IT IS FURTHER ORDERED that the requirements adopted in this Order and rule amendments set forth in Appendix B not pertaining to new or modified reporting or recordkeeping requirements SHALL BECOME EFFECTIVE 30 days after publication of this Order in the Federal Register.

231. IT IS FURTHER ORDERED that 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. IT IS FURTHER ORDERED that 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.

232. 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. Implementation of these new or modified reporting and recordkeeping requirements will be subject to approval by the Office of Management and Budget (OMB) as prescribed by the Act, and will go into effect upon announcement in the Federal

[541] The plaintiff utilities companies brought suit against the United States and the Federal Communications Commission, claiming that the 1996 Act's amendment to the Pole Attachments Act was facially unconstitutional because it took the utilities' property without adequate process for securing just compensation. *Gulf Power*, 187 F.3d at 1324-27, 1339. *See also* 47 U.S.C. § 224(f).

Register of OMB approval.

233. As required by Section 604 of the Regulatory Flexibility Act, 5 U.S.C. § 604, the Commission has prepared a Final Regulatory Flexibility Analysis of the possible impact on small entities of the rules and policies adopted in this document. *See* Appendix E. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this *Third Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Román Salas

Magalie Román Salas
Secretary