In general, we use the generic terms, "experiment" or "technology testing," to refer inclusively to both of the more specific categories, "technical trials" and "market trials." See infra at ¶¶ 19-20 for a further discussion of these terms.

We note that SBC recently has proposed the relaxing of regulations for small-scale experiments, market trials, or technical trials with customers. See Petition for Section 11 Biennial Regulatory Review, filed by SBC Communications, Inc., May 8, 1998, at 26-27.
technologies and services to the public. More recently, Congress reinforced section 7 by adding section 706 of the Telecommunications Act of 1996. Section 706(a) encourages the deployment of advanced telecommunications services by directing the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." Pursuant to these congressional directives, our inquiry here seeks public comment about a broad range of issues relating to the Commission's regulation of technology testing.

2. Specifically, this Notice seeks comment about various initiatives the Commission could undertake in order to promote technology testing, including use of our deregulatory power pursuant to new section 11 of the Communications Act and, alternatively, by applying the Commission's forbearance authority pursuant to new section 10 of the Communications Act. Pursuant to new section 11, Congress has required the Commission to conduct a biennial review of regulations that apply to operations or activities of any provider of telecommunications service and to repeal or modify any regulation it determines to be "no longer necessary in the public interest." Accordingly, the Commission has begun a comprehensive 1998 biennial review of telecommunications and other regulations to promote "meaningful deregulation and streamlining where competition or other considerations warrant such action." This Notice is thus undertaken in conjunction with our 1998 biennial regulatory review and in it we ask, inter alia, whether and how the Commission can apply its section 11 deregulatory and streamlining mandate to remove or restructure existing regulations in order to promote technology testing.

3. Alternatively, we ask in this Notice whether we should and can use our new

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4 Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996 Act), codified at 47 U.S.C. §§ 151 et seq. For the most part, the 1996 Act amended the Communications Act of 1934. We will refer to the Communications Act of 1934, as amended, as "the Communications Act" or "the Act." Section 706 of the 1996 Act, however, was not codified in the Communications Act. 1996 Act, § 706 Advanced Telecommunications Incentives.

5 1996 Act, § 706(a) (noting, with particularity, the need to deploy advanced capabilities to schools).


9 See id.
forbearance authority to accomplish the same goal. New section 10 of the Communications Act requires the Commission to forbear from applying sections of the Act and its regulations to carriers and services upon satisfying a stated three-part test.\textsuperscript{10} Telecommunications carriers and classes of telecommunications carriers may file applications seeking such forbearance treatment. The Notice seeks comment on whether the Commission should undertake specific efforts to encourage or promote such forbearance applications relating to technology testing or, alternatively, should define a class of experimental services that would qualify for forbearance treatment.

4. We do not, however, limit the record of this proceeding to the alternatives presented here. Rather, we encourage commenters to offer any and all relevant and helpful suggestions to promote technology testing by regulated companies. Well-considered proposals to eliminate or streamline regulations governing technology testing would further the Commission's on-going pro-competition and pro-consumer regulatory mandate.\textsuperscript{11} In the last few decades, the telecommunications industry has experienced radical changes in its technologies, services, and markets. In response to these changes, the Commission has increasingly adopted policies that reflect the view that open entry and competition bring greater benefits to consumers and society than traditional regulation of markets dominated by one or a few carriers.\textsuperscript{12} Moreover, Congress in the 1996 Act has advanced this trend by aggressively promoting a new, competition-driven marketplace.\textsuperscript{13} New technologies and new applications of existing technologies will be critical in ensuring that the United States benefits from the competitive opportunities they will foster.

\section*{II. EFFECT OF THE COMMISSION'S REGULATIONS ON TECHNOLOGY TESTING}

5. As a general proposition, the state of regulation reflects established technology. Advances in technology often precede related changes in the applicable regulatory framework. This regulatory lag can sometimes lead to delay in the delivery to consumers of services that

\textsuperscript{10} 47 U.S.C. § 160.

\textsuperscript{11} See Joint Explanatory Statement of the Committee of Conference, S. Conf. Rep. No. 230, 104th Cong., 2d Sess. 113 (1996) (Joint Explanatory Statement) (The 1996 Act was enacted to establish "a pro-competitive, de-regulatory national policy framework" in order to make available to all Americans advanced telecommunications and information technologies and services "by opening all telecommunications markets to competition."). In addition, the preamble to the 1996 Act states that the purpose of the Act is "to promote competition and reduce regulation to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." 1996 Act, § 1 (emphasis added).


\textsuperscript{13} See, e.g., 47 U.S.C. §§ 251, 252, 253, 271.
employ new technology, or new applications of existing technology that stretch or fall outside existing regulatory paradigms. For example, it has been argued that regulation adapted to and reflecting analog telephony delivered over copper-based transmission media did not efficiently promote the deployment of microwave technology that was developed during the Second World War. The Commission first licensed private microwave systems in 1959, but for some fifteen years thereafter regulation restricted the provision of ordinary switched long distance service by microwave-based service providers. Similarly, it has been argued that cellular technology could have allowed for the introduction of cellular telephone service in the United States in the early 1970s but such service was not offered until 1983 -- two years after the introduction of operational systems in Japan and Scandinavia. More recently, the technology to provide advanced voice messaging capability was available in 1981 but, due in part to the process of regulatory approval, these services were not offered until 1990, at which time they were a decided marketplace success.

6. As these examples illustrate, breakthroughs in technology may eventually force modifications in regulatory structures, but the attendant delay in introducing such technology may be contrary to the public interest. While these examples primarily concern the commercial introduction of services, as opposed to experiments in technology per se, we intend to investigate whether our existing regulatory structures may present similar challenges for parties seeking to conduct experiments involving new technology or new applications of technology. In large measure, we undertake this inquiry because we believe that experiments, including technical and market trials, are a critical part of the process of introducing new services. We seek to ensure that our regulations do not create unnecessary disincentives for firms that are engaged in developing new technologies and the derivative services made possible by these new technologies.


7. In the present proceeding, our inquiry is precisely targeted to how we can best promote the testing and development of new technologies that in large part make such innovative services possible. We seek comment about ways to promote experiments, including technical trials and market trials, involving new technology or new applications of existing technology. As explained in greater detail in paragraphs 19-20, infra, we do not propose to limit Commission action to experiments involving new technology per se, and we believe that the opportunity to conduct market trials creates proper incentives to promote technology development and testing. We believe that those who seek to deploy new technologies or new configurations of existing technology in communications networks should be given wide latitude to test whatever they think might enable them to deliver more and better services to consumers. They are in the best position to decide which technological configurations are most promising, and they will bear the risks connected with development.

8. In this regard, we solicit specific comment about how to protect ratepayers and any subscribers to authorized experimental services which utilize market trials. We emphasize that the proposals discussed in this Notice are not intended to alter our rules for permanent authorization of new services or technologies. Our goal is first to determine whether, and to what extent, any of our common carrier regulations currently serve as barriers to experimentation. Second, we seek comment on how to eliminate, where possible, any such regulatory barriers associated with technology testing. We believe that a regulatory climate that encourages such testing predictably will make the initial investment into research more attractive. Of course, this goal is closely tied to our aforementioned, broader goal: to encourage the development of new technologies and new service offerings that benefit American consumers. In an industry increasingly dependent upon research and development, we believe that offering carriers greater flexibility in conducting experiments in new technology could have an immense and beneficial impact upon the pace of innovation and, therefore, on improvements in telecommunications services. Innovation is particularly critical, for example, to the success of firms in high-technology industries that supply equipment (and much of the software) deployed in telecommunications networks.

9. We seek comment about the effect of our regulation on experiments involving new technologies or new applications of existing technology. See also discussion at ¶¶ 19-20, infra.

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18 We define technical trials as trials that aim at developing the functional characteristics of advanced telecommunications equipment and services. We define market trials as trials that focus on the market characteristics of a potential service and pursuant to which customers pay to obtain the service being tested. See also discussion at ¶¶ 19-20, infra.

19 One study states that from 1981 to 1991, research and development (R&D) investment in communications technologies increased from 13.2% to 15.3% of all R&D. U.S. Congress, Office of Technology Assessment, Multinationals and the U.S. Technology Base, OTA-ITE-612, 53-54 n.10 (Sept. 1994).

20 F.M. Scherer and D. Ross, Industrial Market Structure and Economic Performance, 653-654 (1990). In communications, these innovations have included radio telephony, FM radio, the dial telephone, the microprocessor chip, and the microcomputer. Id.
technology and on whether affirmative steps are necessary to further encourage and facilitate testing by removing regulatory barriers to such testing. We believe that the Commission’s regulatory processes should not unduly impede experiments in new technology, and we ask commenters in this proceeding to discuss fully how current Commission regulatory practices might tend to promote or frustrate necessary and desirable technology testing. To this end, we ask commenters to address comprehensively those requirements currently imposed pursuant to the Act, including all relevant Commission rules and requirements, on those firms seeking to conduct experiments.

10. For example, under current requirements, depending on the nature of the technology or service to be tested, we require a firm seeking to conduct technical or market trials to obtain several different approvals, including, e.g., a tariff authorization under section 203, \textsuperscript{21} a certificate under section 214, \textsuperscript{22} approvals of Comparably Efficient Interconnection (CEI) and Open Network Architecture (ONA) plans under our Computer III rules, \textsuperscript{23} a developmental or experimental radio license, \textsuperscript{24} as well as, in specific cases, waivers of various Commission rules. \textsuperscript{25} All of these rule requirements serve legitimate and, indeed, compelling regulatory ends under certain circumstances. Tariff requirements, for example, are one way to help ensure that ratepayers pay just and reasonable rates and do not suffer from unlawful discrimination. CEI and ONA plans help ensure that carriers do not prefer their own enhanced service operations to the detriment of competitive enhanced service providers. Radio licensing, \textit{inter alia}, prevents radio frequency interference caused by and to co-channel and adjacent channel service providers. We seek comment regarding whether any existing rule requirements in these areas can be relaxed or avoided in the context of short-term experimental testing of new technology and new applications of existing technology.


\textsuperscript{23} BOC Notices of Compliance with CEI Waiver Requirements for Market Trials of Enhanced Services, 4 FCC Rcd 1266 (1988) (\textit{BOC Enhanced Services Market Trial Order}). In the \textit{Computer III} proceeding, the Commission established a regulatory framework of nonstructural safeguards to govern the participation of Bell Operating Companies (BOCs) in the enhanced services market. For a thorough history of the \textit{Computer III} proceeding, see \textit{Computer III Further Notice, supra}, n.14, ¶¶ 9-16. Given the on-going \textit{Computer III Further Remand} proceedings, as noted above, we direct parties to raise general comments about the Commission’s regulatory framework for BOC provision of information services in that docket.

\textsuperscript{24} 47 C.F.R. § 5.01 \textit{et seq}.

\textsuperscript{25} 47 C.F.R. § 1.3 (authorizing the Commission to issue waivers “for good cause shown”).
11. We ask commenters to develop a specific record on how, from planning and regulatory perspectives, firms engage in experiments, including both technical trials and market trials of services using new technology. For example, commenters should indicate whether carriers must have particular authorizations in place prior to conducting technical or market trials of a service, or whether such authorization is only required prior to the commercial offering of a service. We also seek comment on the extent to which non-carriers, i.e., equipment manufacturers or vendors, are responsible for technology testing and the extent to which these non-carriers are subject to any of the Commission's requirements in their testing of new technologies.

12. Further, we seek comment on whether the public nature of the Commission's application and approval processes may act to discourage parties from engaging in experiments, and consequently whether we should allow trials of new technologies or services to take place after expedited review or without any Commission approval at all. We note that the Commission issued a Notice of Inquiry in a different proceeding that, inter alia, asked whether expedited approval processes for experiments involving non-radio technology subject to regulation under Titles II and VI of the Act are desirable. In the present inquiry, we seek to invite a wider range of commenters to address this and related issues. As noted above, we address technology-testing regulation as a part of our 1998 biennial review, in an effort to eliminate any unnecessary and possibly conflicting regulatory requirements. We encourage commenters, when considering the effect of particular regulations on technology testing, to consider the statutory standard in section 11 of the Act, which obligates the Commission to review and eliminate regulations that are "no longer necessary in the public interest."

13. Finally, we note that the Commission has made substantial efforts to reduce regulatory burdens on communications common carriers in recent years and, in this inquiry, we wish to explore what, if any, additional actions are desirable to promote technology testing. We note generally that the Commission has taken steps to eliminate or streamline many regulatory obstacles to the deployment of new services. For example, in the IXC Detariffing Order, the Commission has ruled that non-dominant interexchange carriers will no longer file tariffs for their

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26 Improving Commission Processes, Notice of Inquiry, PP Docket No. 96-17, FCC 96-50, 11 FCC Rcd 14006, ¶ 66 (rel. Feb. 14, 1996). Only two commenters addressed this issue. See, e.g., NYNEX Comments at 2 ("NYNEX fully supports the intent of the Commission's proposal . . . ."); Comments of Dr. Irwin Dorros at 1. See also letter from SBC Communications, Inc. to Mary Beth Richards, Deputy Chief of the Common Carrier Bureau (July 22, 1997) (urging the Commission to adopt procedures for streamlined review of experiments of non-radio telecommunications technologies); letter from Northern Telecom to Gina Keeney, Chief of the Common Carrier Bureau (August 22, 1997) (expressing support for the concept of streamlined procedures to allow small-scale technical and market trial of communications technology).

interstate domestic long distance services.\textsuperscript{28} Similarly, the Commission has proposed to exempt price cap local exchange carriers (LECs), average schedule LECs, and all local or long-distance non-dominant carriers from the section 214 requirements for new or extended domestic lines and, further, to grant blanket authority for dominant, rate-of-return carriers to undertake small projects.\textsuperscript{29} Under the proposed revisions to our section 214 regulation, the only domestic carriers required to obtain section 214 certification for new or extended lines would be dominant, rate-of-return carriers that proposed projects in excess of a stated threshold for small projects. Even in those limited situations, the carriers would be able to file streamlined applications subject to automatic approval after thirty-one days.\textsuperscript{30} We seek comment on the effect of these deregulatory initiatives on technology testing. Given these recent initiatives, we solicit comment whether additional steps are necessary to encourage parties to undertake experiments using new technology or new applications of existing technology. We ask commenters to consider these actions and on-going proceedings in presenting their analyses and recommendations.

III. ALTERNATIVE MEANS OF PROMOTING TECHNOLOGY TESTING

14. Based on the inquiry initiated in Section II, \textit{supra}, we may determine that certain of our common carrier regulations impede testing and experimentation with new technologies and new applications of existing technologies. For that reason, we explore below possible alternative approaches to encourage and facilitate technology experiments, namely, using section 11(b) to create streamlined authorization procedures (based on current Part 5 procedures\textsuperscript{31} governing wireless test applications) and applying regulatory forbearance under section 10 of the Act to "carve out" exceptional treatment for qualified tests. By suggesting these alternatives we do not mean to preclude discussion of others, and we encourage commenters to offer any and all relevant and helpful suggestions. We seek specific comment on the ramifications of allowing technology testing to be conducted through market trials, \textit{i.e.}, trials in which customers pay to obtain the service being tested. We think that such market trials can be a useful way to develop "real world" information that is relevant to the introduction of new technology. At the same time, we will in every case take steps to ensure that customers -- including ratepayers of regulated carriers -- do

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\textsuperscript{28} See \textit{IXC Detariffing Order}, 11 FCC Red 20730, ¶¶ 3, 53 (finding that even streamlined tariff filing procedures impose costs on carriers that attempt to make new offerings). As noted previously, the Commission's deregulatory efforts in the \textit{IXC Detariffing Order} have been stayed by the United States Court of Appeals for the D.C. Circuit. See \textit{MCI Telecommunications Corp. v. FCC}, No. 96-1459 (D.C. Cir. Feb 19, 1997).

\textsuperscript{29} See \textit{Section 214 Notice}, 12 FCC Rcd 1111, ¶ 3. The proposed blanket authority for "small projects" would apply to a carrier's projects that would either 1) have an aggregate cost of less than $12,000,000 per year or annual rental of less than $3,000,000; or 2) increase the cost of the carrier's lines by not more than 10%. \textit{Id.} at ¶ 62.

\textsuperscript{30} See \textit{Section 214 Notice}, 12 FCC Rcd 1111, ¶ 52-58.

not improperly subsidize technology testing, and we solicit comment on ways to ensure that the costs of such trials continue to be borne by shareholders.

A. Use of Section 11(b) Authority to Repeal or Modify Existing Regulation

15. We ask parties to constantly bear in mind our section 11(b) obligation to "repeal or modify any regulation [determined] to be no longer necessary in the public interest." Pursuant to this mandate, we ask commenters to identify any regulations currently applicable to technology testing that we should eliminate along with the appropriate analysis to support their proposals. If commenters believe that existing regulation of technology testing should be modified, they should address how the Commission might pare back or streamline existing Title II-derived regulation in order to promote technology testing and experimentation. One possible approach to regulatory streamlining is that taken for wireless services, codified in Part 5 of the Commission's rules as applicable to Experimental Radio Service. In order to stimulate technical innovation and facilitate the testing of novel technology, trials authorized under Part 5 need not comply with the usual rules that govern permanent authorizations of wireless services, but instead are reviewed under streamlined procedures and more flexible standards. A distinct advantage of the Part 5 rules is that, for defined experiments, through one consolidated application process, parties may obtain authorization to conduct scientific research, technical demonstrations, and limited market trials -- activities that otherwise would not be permitted without various waivers of the Commission's rules.

16. As noted, the Commission recently proposed revisions to Part 5 in order to make its organization more clear and helpful to the public. Both in its current structure and under the proposed reorganization, the Part contains sections that, inter alia, set out a stand-alone application and licensing process, provide technical and operational standards, and specifically authorize limited market trials. Our Part 5 rules provide applicants with significant flexibility, for example, with regard to otherwise applicable frequency range, power, and emission

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33 47 C.F.R. § 5.01 et seq. (providing streamlined procedures for considering proposed technological experiments in radio technology and facilities by manufacturers, service providers, and others). See also 47 C.F.R. §§ 21.400-21.406 (including various developmental licensing provisions for radio services). And see 47 U.S.C. § 303(g) (authorizing Commission to provide for experimental uses of frequencies).


requirements,\textsuperscript{37} but they include certain limitations, including the limitation that authorizations under Part 5 are not convertible into permanent licenses without a rulemaking or waiver proceeding conducted under our normal procedures.\textsuperscript{38} The benefits of our Part 5 rules are apparent: the rules have been instrumental in allowing rapid field testing of new radio technologies with minimal regulatory oversight and have led to new and innovative uses of the spectrum.\textsuperscript{39}

17. The Commission has adopted a similar streamlined approach under our \textit{Computer III} rules for the review of BOC-proposed market and technical trials of enhanced services.\textsuperscript{40} Through the \textit{Computer III} decisions, the Commission has permitted BOCs to integrate their enhanced service and basic service offerings provided that they comply with certain non-structural safeguards, including CEI and ONA requirements.\textsuperscript{41} In the \textit{BOC Enhanced Services Market Trial Order}, the Commission articulated streamlined procedures for market trials of enhanced services provided that the experiments meet defined conditions that govern, \textit{inter alia}, duration, cost allocation, equal access, treatment of end users, and notification of competing enhanced service providers.\textsuperscript{42} Explaining the benefits of these special provisions, the Commission noted that increased "regulatory flexibility should provide an incentive for BOCs to conduct trials that may


\textsuperscript{38} 47 C.F.R. §5.68(a) ("[T]he authority to use the frequency or frequencies assigned is granted upon an experimental basis and does not confer any right to conduct an activity of a continuing nature . . . .").

\textsuperscript{39} Field tests conducted under Part 5 have resulted in the deployment of a number of new communications services. See, e.g., \textit{1996 Proposed Amendments to Part 5}, 11 FCC Rcd 20130, ¶ 5 ("[A]pproximately 225 experimental [Personal Communications Service (PCS)] authorizations were granted . . . . Not only did the experimental licensees benefit from the information gathered through these experiments, but the Commission was able to learn from them and make more informed decisions regarding the PCS allocation.").

\textsuperscript{40} See \textit{BOC Enhanced Services Market Trial Order}, 4 FCC Rcd 1266, ¶ 21 ("Such waivers are especially appropriate for new and largely untested services . . . because the optimal technical configurations and general market acceptance are not well established."). \textit{See also Bell Operating Companies' Joint Petition for Waiver of \textit{Computer II} Rules}, Order, 10 FCC Rcd 13758, ¶ 3 (rel. Oct. 31, 1995) (requiring BOCs to comply with the rules governing market trials in effect before the lifting of structural separation).

\textsuperscript{41} See, e.g., \textit{Bell Operating Companies' Joint Petition for Waiver of \textit{Computer II} Rules}, 10 FCC Rcd 13758, ¶¶ 3-11. Under the Commission's rules, the term "enhanced services" refers to "services, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information." See 47 C.F.R. § 64.702(a). For a further discussion of the terms, enhanced services and basic services, see \textit{Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended}, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-149, 11 FCC Rcd 21905, ¶¶ 102-107 (1996) (\textit{Non-Accounting Safeguards Order}).

\textsuperscript{42} \textit{BOC Enhanced Services Market Trial Order}, 4 FCC Rcd 1266, ¶¶ 46-47.
well result in the development of important enhanced services for the public."

18. Using our rulemaking authority, we could create an alternative regulatory regime - modeled after our Part 5 rules or the market trial provisions of Computer III -- to promote the testing of non-radio telecommunications technologies. We seek comment on the value of such an alternative regulatory framework, i.e., a regime that is based on expedited review of simplified, consolidated applications for experiments of limited size and duration. We ask parties specifically how the Commission might design such a framework to create the most opportunities for carriers to test new technologies and new applications of existing technology. A central task in such an undertaking would be defining a class of experiments eligible for consideration. We seek comment on how to describe, by rule, a class of experiments that would promote development of new technology, and we encourage parties to submit draft rules defining such a class of experiments. We do not think such experiments, including market trials, should be restricted to those employing "new" technologies in any narrow sense of the term because we believe that it may be difficult to distinguish between new technologies and those that utilize existing technologies in unique applications, given the evolving nature of technological processes. It is, we think, particularly difficult for regulators to attempt such distinctions and possibly counter-productive as policy, i.e., if our goal is to grant sufficient flexibility to carriers and other service providers to develop and apply new technologies which may not easily "fit" into existing regulatory paradigms. Accordingly, we seek comment on whether and how to define the scope of those technologies to which this streamlined authorization procedure would apply. We specifically seek comment on the extent to which any experiments utilizing new technology or new service applications employing existing technologies should be eligible for streamlined authorization.

19. Under such an approach, we intend that both technical trials (aimed at developing the functional characteristics of advanced telecommunications equipment and services) and market trials (focused on the market characteristics of a potential service) could be authorized pursuant to the streamlined procedure. We use the term "market trials" to describe those trials in which customers pay to obtain the service being tested. We believe that market trials -- conducted pursuant to appropriate consumer safeguards -- provide additional and appropriate incentives to promote technology development. We note that the Commission, after finding that such market trials can yield valuable information both to service providers and to the Commission, amended its Part 5 rules to allow experimental service providers to charge end users in market trials. The same considerations appear to apply here and we believe it appropriate to allow, but

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43 Id. at ¶ 46.

44 See, e.g., BOC Enhanced Services Market Trial Order, 4 FCC Rcd 1266, n.10 ("technical trials [of enhanced services] focus on functional characteristics, such as how enhanced equipment works, or how it interfaces with the network").

not require, service charges to users. We seek comment on what, if any, restrictions we should adopt to encourage market trials that facilitate the delivery of new services to consumers, as opposed to trials that serve only, for example, to gather marketing information for carriers.

20. We seek comment whether our rules should distinguish experimental authorizations from permanent service authorizations by setting limits on the size of experiments, e.g., number of end users taking service, or the duration of experiments. Concerning the size of such experiments, we expect that economies of scale in equipment fabrication may tend to favor larger experiments. We thus request comment on the factors that we should consider in determining what is an appropriate size for proposed experiments. We believe that approval of experiments using new technology should not, in any case, prejudge any eventual Commission decision to authorize permanent services. As a result, we think that such experiments should be subject to specific time limits and with the stated disclaimer that they cannot mature into permanent service authorizations absent further action pursuant to applicable rules and procedures. Nonetheless, because we expect that there is some relationship between a firm's willingness to engage in experiments and its ability to turn such activities into profitable permanent services, we seek comment on the value of a streamlined review process for experimental undertakings that offers no expectancy of authorization as a permanent service. We tentatively conclude that placing time limits on trials would permit the Commission to conduct a thorough analysis of new technologies and associated services before these technologies are deployed on a permanent basis -- a process that we consider essential to fulfilling our regulatory mandates to promote the public interest, convenience, and necessity. We also recognize,

One class of experimentation which is not provided for under Part 5, but which can provide vital information to both the developer of a new service or device and the Commission, is a market trial. In such trials a new service or device would be offered to prospective users in limited quantity and/or for a limited period of time to determine the sensitivity of demand to various prices and quality levels. Such sensitivity information would be valuable to licensees in optimizing the design of their proposed systems or services and to us in setting . . . standards and . . . requirements.


46 See, e.g., US West Computer III Market Trial Notification for Omaha Video Dialtone Trial, Memorandum Opinion and Order, CC Docket No. 88-2, DA 95-641, 10 FCC Rcd 13292 (rel. Mar. 30, 1995) (US West Computer III Market Trial Order) (authorizing market trial of video dialtone -- per section 214 certification process -- for 60,000 households in Omaha, Nebraska). In the US West Computer III Market Trial Order, the Commission decided that the number of customers in a Computer III market trial should be determined through the Commission's section 214 certification process: "we see no reason for imposing differing standards in the Section 214 and Computer III contexts." Id. at ¶ 11. Compare 1996 Proposed Amendments to Part 5, 11 FCC Rcd 20130, ¶ 17 proposing to limit the size and scope of market studies on a case-by-case basis).

47 In fact, we expect that an advantage of such trials would be that, in the event that a carrier conducting an experimental service eventually seeks permanent approval of the service, the Commission would be able to evaluate the proposed service based on a more complete public record than would otherwise be available.
however, that trials do need to be sufficiently long, for example, to enable parties to implement the trial, identify and attempt to correct problems with the technology, and test the sensitivity of demand to various prices and quality levels. We seek comment on an appropriate period that would allow parties the necessary flexibility to make such trials useful while preserving the basic premise that these trial services are not granted permanent authorization.  

21. We believe any deregulatory regime governing telecommunications testing and market trials must be consistent with the Commission's consumer protection obligations. Currently, technology experiments, including market trials, are subject to certain Title II obligations, such that, for example, prices charged in market trials would need to be just and reasonable and not unreasonably discriminatory. We seek comment on the extent to which such obligations should continue to be imposed on experiments, especially if we place limits on the size and duration of experiments. We are also concerned that, where firms engage in market trials, members of the public should be made aware of any extraordinary risks associated with subscribing to an experimental operation. To this end, we seek comment on whether we should require companies conducting market trials to provide specific information to consumers to enable them to decide whether to participate. For example, must carriers specifically warn customers that they will be taking trial services subject to particular limitations, such as duration? Further, should we require carriers to let customers opt out of market trials without penalty? We seek comment on the need for and effectiveness of such safeguards.

22. Regardless of the approach we might adopt applying our section 11 mandate, we think that costs of experiments, including market trials, should be accounted for and allocated in accordance with our existing accounting and cost allocation rules. We seek comment whether additional regulatory safeguards are necessary to ensure that ratepayers do not inappropriately subsidize experiments, including market trials. Alternatively, the Commission could establish a cap on expenditures for authorized experiments or market trials such that any expenditures would be considered de minimis. We think, for example, that it may be possible to establish a cap that would limit expenditures on experiments subject to streamlined application procedures as either a

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48 We note that under Part 5 of our rules experiments in wireless technology are authorized for a period not to exceed two years. See 47 C.F.R. § 5.63.


percentage of the firm's total expenses, a fixed monetary amount, or a combination of the two.\textsuperscript{52} We invite parties to comment on the need for and efficacy of such cap proposals.

23. One of our primary goals in this inquiry would be to streamline and facilitate any required application and review processes in connection with new technology trials, and we believe that allowing carriers to file a consolidated application for all necessary approvals or waivers of the Commission's rules might help achieve that goal. We seek comment on the effectiveness of using consolidated applications for such experiments. In addition, we could establish a time limit for Commission review such that qualifying applications would be deemed granted automatically, unless the Commission either rejects the petition or notifies the applicant of the need for further documentation within a predetermined time period.\textsuperscript{53} We seek comment on whether we have any obligation to give public notice of and seek comment on applications for experiments and trials and on whether the notice and comment process is necessary in the context of short-term, limited-scale experiments that offer no assurance of authorization as a permanent service. We thus invite parties to discuss whether public notice-and-comment on pending applications may have adverse effects on innovation and experimentation and whether consideration of such applications without public notice-and-comment would be in the public interest.\textsuperscript{54}

B. Use of Section 10 Regulatory Forbearance Authority

24. Alternatively, we seek comment on whether we should use the forbearance authority set out in new section 10 of the Communications Act to reduce or eliminate regulatory barriers to technology testing, including statutory barriers.\textsuperscript{55} Section 10(a) requires the Commission to:

\begin{quote}
[f]orbear from applying any regulation or any provision of this Act to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services, in any or some of its or their geographic markets, if the Commission determines that -- (1) enforcement
\end{quote}

\begin{footnotesize}
52 See, e.g., Section 214 Notice, 12 FCC Rcd 1111, ¶¶ 59-62 (proposing blanket authority for carriers to conduct small projects that would either 1) have an aggregate cost of less than $12,000,000 per year or annual rental of less than $3,000,000; or 2) increase the cost of the carrier's lines by not more than 10%).

53 For example, a 90 day review period has been used in the Commission's consideration of BOC-sponsored market trials of enhanced services. See BOC Enhanced Services Market Trial Order, 4 FCC Rcd 1266, ¶ 47 (requiring 90 days notice prior to commencement of market trials of enhanced services).

54 Such an approach would be similar to the longstanding practice for experimental radio license applications under Part 5 of our rules and for equipment authorization applications under Part 2 of our rules. See, respectively, 47 C.F.R. § 5.1 et seq., § 2.901 et seq.

\end{footnotesize}
of such regulation or provision is not necessary to ensure that the charges, practices, classifications or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable, and are not unjustly or unreasonably discriminatory; (2) enforcement of such regulation or provision is not necessary for the protection of consumers; and (3) forbearance from applying such provision or regulation is consistent with the public interest.56

25. We could utilize such forbearance authority in at least two alternative ways in order to promote technology testing. First, because section 10(c) specifically authorizes carriers to seek forbearance treatment for themselves or for specific services they offer, we seek comment about how the Commission might facilitate such applications.57 We ask parties in this proceeding to comment about the desirability of such an approach and, specifically suggest steps the Commission could take to ensure the timely and favorable consideration of technology testing applications for forbearance treatment. In this latter regard, we note that section 10(c) requires us to act on forbearance petitions within one year of filing unless the Commission specifically acts to extend the one year period by an additional 90 days.58 Based on our experience with petitions filed under section 10(c), we believe that careful consideration of individual forbearance petitions would be resource-intensive and perhaps inefficient for these purposes. Given these administrative considerations, we seek specific comment on how to ensure that such applications could be acted upon within the shortest practicable time frame consistent with due consideration of the evaluative criteria set out in section 10, including the criteria enumerated in section 10(a).

26. Another way to apply our forbearance authority would be to define a class of experimental services that would qualify for forbearance treatment. Under such a scenario, any qualifying applicant could obtain routine Commission certification to offer an experimental service -- through, e.g., market trials -- without being subject to various aspects of Title II regulation. Our task in this case would be twofold. First, we would need to define an appropriate class of experimental telecommunications services. Second, and closely related thereto, we would need to

56 47 U.S.C. § 160(a) (emphasis added). See also 47 U.S.C. § 160(b) (requiring the Commission to consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions). We note also that section 10(d) provides that the Commission may not forbear from applying the requirements of new section 251(c), relating to the obligations of incumbent local exchange carriers, and of new section 271, relating to BOC provision of interLATA services, until the Commission determines that those requirements have been fully implemented. See 47 U.S.C. § 160(d).


determine what specific provisions of Title II and associated Commission regulations are appropriate candidates for forbearance under application of the specific criteria of section 10.

27. We ask parties responding to this Notice to comment whether such an approach could be sustained pursuant to section 10 and whether it would be an efficient and otherwise desirable way to reduce regulatory barriers to testing of new technology and new applications of existing technology. To the extent that parties believe that such action is legally sustainable and otherwise desirable, we urge them to provide comment regarding appropriate definitions for a class of experimental telecommunications services. We refer commenters to the discussion, supra, in which we solicit comment about how to define by rule a class of experiments for streamlined administrative review. We believe that many of the same considerations could apply in defining a class of experimental services for section 10 forbearance purposes. We also ask parties to recommend specific sections of the Act and the Commission's rules for forbearance treatment and indicate their reasons, including application of section 10(a) criteria to specific cases. We urge parties to consider carefully -- with respect to the defined class of experimental services -- whether and how regulatory forbearance of specific provisions of Title II and the Commission's rules could satisfy all the criteria set out in section 10 of the Communications Act. We state again that it is not our intention here to reconsider the merits of Title II regulation as it has been developed in other Commission proceedings and applied to permanent, for-profit services, but merely to consider a limited exception to that regulation for a certain type of service, i.e., experimental services, including market trials, employing new technology and new applications of existing technology.

28. For example, a number of Title II provisions and corresponding regulations provide specific consumer protections. It is our intention that such consumer protection provisions shall, in every relevant case, remain in place wherever carriers seek to offer services on a permanent basis. We seek comment, however, on whether there are alternatives to the consumer protections currently contained in the Act and our rules that could be applied in the case of technical and market trials and that would satisfy the requirements of section 10(a)(2).

29. Similarly, section 220 of the Act places a variety of recordkeeping, accounting, and depreciation obligations on communications common carriers. The Commission's rules

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59 See Discussion at III. A., supra.

60 See, e.g., 47 U.S.C. §§ 222 (Privacy of Customer Information), 223 (Obscene or Harassing Phone Calls in the District of Columbia or in Interstate or Foreign Communications), 230 (Protection for Private Blocking and Screening of Offensive Material), and 258 (Illegal Changes in Subscriber Carrier Selections).

implementing section 220, found in Parts 32 and 64, are designed to protect regulated service ratepayers from bearing the costs and risks of carriers’ nonregulated, competitive ventures. These rules also seek to promote competition by preventing carriers from using their market power in local exchange services to obtain anti-competitive advantages in the nonregulated markets in which they compete. Parties in this proceeding who seek forbearance from these provisions in the context of experimental services should discuss how compliance with section 220 and associated Commission rules would impede the conduct of experimental services, as well as make appropriate arguments based on application of section 10(a) forbearance criteria. We note that it is our tentative view that carriers already subject to Part 32 and Part 64 accounting and cost allocation requirements should continue to follow those rules in the context of conducting experimental services, through, e.g., market trials, because such carriers must account for their activities and expenditures in any event and it would be anomalous -- if not practically impossible -- to exempt one area of carrier activity from these obligations. We seek comment on this tentative conclusion.

30. We invite specific comment about the consequences of forbearance on the market for advanced telecommunications services and participation by smaller firms in particular. We anticipate that reduced regulatory barriers to experimentation, and correspondingly reduced costs, should enable smaller carriers to engage in such trials, thereby promoting competition among developers of advanced telecommunications capabilities. Such proposals should further section 257 of the Communications Act which requires the Commission to eliminate market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications and information services. It is well-established that new entrants -- without substantial investments in accepted technologies -- have been responsible for a substantial share of revolutionary new products and processes. Indeed, the threat of market entry through innovation has, in turn, stimulated established firms to innovate, for example, to develop microwave radio relay systems, cordless telephones, and electronic office switchboards. We invite parties to comment on whether forbearance from various aspects of Title II regulation would create incentives for competition in the market for advanced telecommunications services, or whether it would tend to undermine the ability of new entrants to compete in certain markets.

62 47 C.F.R. § 32.1 et seq.
63 47 C.F.R. § 64.1 et seq.
64 47 C.F.R. Parts 32 and 64; see also Joint Cost Order, 2 FCC Red 1298; Accounting Safeguards Order, 11 FCC Red 17539.
68 Id.
31. Finally, we note certain clear limitations on our forbearance authority. Section 10(d) expressly prohibits the Commission from exercising forbearance with respect to the requirements of sections 251(c) and 271, unless the Commission determines that those requirements have been fully implemented. Pursuant to section 251(c) of the Act, incumbent local exchange carriers are required to open their networks to competition, including providing interconnection, offering access to unbundled network elements, and making their retail services available at wholesale rates so that they can be resold. Section 271 of the Communications Act sets out the necessary steps that a Bell Operating Company must take before it will be allowed to offer long distance service originating in any of its in-region states. We do not propose to forbear from applying either of these statutory provisions or the regulations implementing those provisions and do not seek comment on either of these provisions. We also seek comment whether there are any other statutory provisions or policies that warrant limits on our forbearance authority under section 10 of the Act.

32. Similarly, we note that section 254 of the Communications Act requires the Commission, working with the states and consumer advocates through a Federal-State Joint Board, to implement policies for the preservation and enhancement of universal service. Section 254, inter alia, directs the Commission to define specific services that will receive universal service support, establish specific, predictable, and explicit mechanisms to provide that support to eligible carriers, and ensure that quality services are available at just, reasonable, and affordable rates. It is not our intention, generally, to exempt any carrier activity for purposes of computing universal service obligations. Nevertheless, given our actions implementing section 254, we seek comment whether the Commission should permit firms engaged in limited market trials to exempt any associated revenue from the computation of end user telecommunications revenues, i.e., the total revenues on which the firms' contributions to the universal service fund are based.


74 See Universal Service Order, ¶¶ 843-844.
IV. CONCLUSION

33. We believe that deregulatory initiatives that result in promoting experiments involving new technology will benefit all consumers of telecommunications services. Congress has directly addressed our public interest considerations in section 7 of the Communications Act, which establishes the policy of the United States "to encourage the provision of new technologies to the public." Congress has reaffirmed this statement of public interest in section 706, entitled "Advanced Telecommunications Incentives," of the 1996 Act. In addition, section 706 requires the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans." To the extent that our regulatory process may unduly delay the testing of new technologies, those delays diminish customers' access to the advanced services that utilize these new technologies. We expect that, by reducing the regulatory delays involved with experiments, we would facilitate the deployment of advanced telecommunications services to all consumers and would promote those public interest goals articulated by Congress. Finally, as part of the Commission's 1998 biennial review, we endeavor to eliminate any unnecessary requirements that apply to technology testing but no longer serve the public interest. We encourage parties to bear these policy directives in mind when formulating their comments in this proceeding.

V. PROCEDURAL MATTERS

A. Ex Parte Presentations

34. Pursuant to section 1.1204(b)(1) of the Commission's rules, this proceeding is exempt from the prohibitions and restrictions in our ex parte requirements.

B. Comment Filing Procedures

35. General. Pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties shall file comments not later than July 21, 1998, and reply comments not later than August 5, 1998. To file formally in this proceeding, you must file an original and six copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original and twelve copies. Comments and reply comments should be sent to the Secretary, Federal Communications Commission, 1919 M Street, N.W., Room 222, Washington, D.C. 20554, with copies to: Thomas J. Beers, Common Carrier Bureau, Industry

76 1996 Act, § 706.
77 Id.
78 See 47 C.F.R. § 1.1204(b)(1).

36. Other requirements. Comments and reply comments must also comply with Section 1.49 and all other applicable sections of the Commission's rules. We also direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments.

37. Commenters may also file informal comments or an exact copy of formal comments electronically via the Internet at: <http:dettifoss.fcc.gov:8080/cgi-bin/ws.exe/beta/ecfs/upload.hts>. Only one copy of electronically filed comments must be submitted. Commenters must note on the subject line whether an electronic submission is an exact copy of formal comments. Commenters also must include their full name and U.S. Postal Service mailing address in their submissions. Further information on the process of submitting comments electronically is available at that location and at <http://www.fcc.gov/e-file>.

38. Parties are also asked to submit comments and reply comments on diskette. Such diskette submissions would be in addition to and not a substitute for the formal filing requirements addressed above. Parties submitting diskettes should submit them to: Ms. Terry Conway, Common Carrier Bureau, Industry Analysis Division, 2033 M Street, N.W., Room 500, Washington, D.C. 20554. Such diskettes should be on a 3.5 inch diskette formatted in an IBM compatible format using WordPerfect 5.1 for Windows software. The diskette should be submitted in "read only" mode. The diskette should be clearly labeled with the party's name, proceeding, type of pleading (comment or reply comments) and date of submission. The diskette should be accompanied by a cover letter.

VI. ORDERING CLAUSES

39. ACCORDINGLY, IT IS ORDERED, pursuant to sections 1, 4(i), 7, 10, 11, 218 and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 157, 160, 161, 218, 403, that NOTICE IS HEREBY GIVEN OF the inquiry described above and that COMMENT IS SOUGHT on these issues.

FEDERAL COMMUNICATIONS COMMISSION

79 See 47 C.F.R. § 1.49.
Magalie Roman Salas
Secretary
Separate Statement of Commissioner Harold W. Furchtgott-Roth

In re: Notice of Inquiry


I support adoption of this Notice of Inquiry. In my view, any reduction of unnecessary regulatory burdens is beneficial. To that extent, this item is good and I am all for it. In particular, I applaud the Common Carrier Bureau for having produced an item so clearly in the deregulatory spirit of Section 11 of the Communications Act. This item exemplifies how the FCC's power under this section can be used for the benefit of consumers and industry. It should not, however, be mistaken for complete compliance with Section 11.

As I have explained previously, the FCC is not planning to "review all regulations issued under this Act . . . that apply to the operations or activities of any provider of telecommunications service," as required under Subsection 11(a) in 1998 (emphasis added). See generally 1998 Biennial Regulatory Review -- Review of Computer III and ONA Safeguards and Requirements, 12 FCC Rcd __ (Jan. 29, 1998). Nor has the Commission issued general principles to guide our "public interest” analysis and decision-making process across the wide range of FCC regulations.

In one important respect, however, the FCC’s current efforts are more ambitious and difficult than I believe are required by the Communications Act. Subsection 11(a) -- "Biennial Review" -- requires only that the Commission "determine whether any such regulation is no longer necessary in the public interest" (emphasis added). It is pursuant to Subsection 11(b) -- "Effect of Determination" -- that regulations determined to be no longer in the public interest must be repealed or modified. Thus, the repeal or modification of our rules, which requires notice and comment rule making proceedings, need not be accomplished during the year of the biennial review. Yet the Commission plans to complete roughly thirty such proceedings this year.

I encourage parties to participate in these thirty rule making proceedings. I also suggest that parties submit to the Commission -- either informally or as a formal filing -- specific suggestions of rules we might determine this year to be no longer necessary in the public interest as well as ideas for a thorough review of all our rules pursuant to Subsection 11(a).

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