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For FCC Record Only

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Expanded Interconnection with)
Local Telephone Company Facilities) CC Docket No. 91-141
)

MEMORANDUM OPINION AND ORDER

Adopted: July 14, 1994

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By the Commission: Commissioners Quello, Barrett, and Chong issuing
separate statements.

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I. INTRODUCTION

A. Summary

1. In a series of orders in the past two years, we have adopted and implemented an expanded interconnection policy that creates new opportunities for the competitive provision of access services that the local telephone companies traditionally have provided on a monopoly basis. Our decisions mandating expanded interconnection and collocation are fundamental to opening the interstate special access and switched transport markets to greater competition. Our simultaneous grant of greater pricing flexibility to the local telephone companies enables those companies to compete more vigorously as well, while assuring that we retain necessary controls on dominant access providers. We believe that expanded interconnection, by fostering increased competition in interstate access markets, should increase economic growth. Competition should lead to lower special access and switched transport charges, which in turn will make it possible for long-distance companies to offer service at lower rates, thus stimulating demand for communications services. Lower prices for communications services not only benefit consumers directly, they also make resources available for productive investment elsewhere in the economy. Competition also gives local telephone companies, as well as their competitors and customers, incentives to invest in advanced telecommunications technologies, develop innovative services, and provide existing

services more efficiently. Expanded interconnection creates greater opportunities for new entrants to compete by enabling them to rely in part on the telecommunications facilities of established service providers, and thereby promotes broader access to communications networks and services by all users. The competition that expanded interconnection makes possible should give users a greater range of choices in telecommunications services and increase opportunities for users to obtain redundant facilities, thus contributing to network reliability.

2. On June 10, 1994, the U.S. Court of Appeals for the District of Columbia Circuit issued an order stating that it would vacate in part the first two of our expanded interconnection orders on the grounds that the Commission does not have authority under the Communications Act of 1934, as amended, to require local exchange carriers (LECs) to provide expanded interconnection through physical collocation. The court held that Section 201 of the Act, which authorizes the Commission to order carriers "to establish physical connections with other carriers," does not empower the Commission "to grant third parties a license to exclusive physical occupation of a section of the LECs' central offices." Underlying the court's statutory construction was its concern that our physical collocation requirement constituted a "taking" of property. The court also stated that it would remand our orders to permit us to consider whether and to what extent to impose virtual collocation requirements in the absence of a physical collocation requirement. Finally, the court stated that it would remand the question of whether we would impose a "fresh look" requirement in the absence of mandatory physical collocation. The court stated that "[t]he orders are vacated insofar as they require physical collocation; in all other respects the orders are remanded to the Commission for further proceedings."

3. We are acting expeditiously to preserve the substantial public interest benefits of expanded interconnection. We here establish the rights and obligations of affected parties under a modified expanded interconnection regime that takes the court's decision into account. By responding quickly to the court's decision, our goal is to ensure uninterrupted availability of expanded interconnection services. We seek to avoid the disruption to competition that would result if new rules and tariffs implementing our expanded interconnection policy are not in place at the time

the court's decision takes effect. Thus, even though the court's mandate has not yet issued, and even though the court's decision applies only to expanded interconnection for special access, we adopt in this order rules designed to speed the process so as to ensure that local telephone companies offer expanded interconnection for both special access and switched transport through generally available virtual collocation services no later than December 15, 1994. We will exempt from this requirement companies that choose instead to offer physical collocation subject to the standards we set forth below. Under this order, the LECs are required to file tariffs implementing our new mandatory virtual collocation policy on September 1, 1994; in other respects, the rules and regulations adopted here will become effective on December 15, 1994. December 15 is the earliest date by which we can ensure that the new tariffs will have undergone adequate review by the Commission's staff. To prevent any lapse in the effectiveness of our overall expanded interconnection policy, we intend to seek a stay of the issuance of the court of appeals' mandate until December 15, 1994, by which time tariffs implementing our new mandatory virtual collocation rules can be effective. We also reaffirm our fresh look requirements in connection with the mandatory virtual collocation regime, in light of the court's decision to remand this issue. Pending further judicial action or possible legislation, we leave in place for the present our mandatory physical collocation rules, but will replace those rules with new mandatory virtual collocation rules on December 15, 1994.

4. In this order we consider the entire extensive record already assembled in this proceeding, including that compiled in response to the pending petitions for reconsideration of all of our earlier orders. We find that the existing record is fully sufficient to support our decision here, and find no policy reason to supplement the record before moving forward, nor any legal requirement to do so. After reviewing the court's order, we conclude that, for the most part, our decisions in earlier orders in this proceeding on standards, tariffing, rate structure, pricing, and other aspects of the provision of expanded interconnection services should apply with equal force under the new mandatory virtual collocation regime. In particular, we grant increased pricing flexibility to local telephone companies that have implemented expanded interconnection through either virtual or physical collocation. In certain respects, however, we are modifying our requirements to reflect the

use of mandatory virtual collocation and to reflect policy changes that we conclude are in the public interest based on petitions for reconsideration of our earlier orders. Because we envision, under the new collocation policy, that some local telephone companies may voluntarily provide physical collocation as a regulated common carrier service, we are also reaffirming many of our rules relating to the rates, terms, and conditions of physical collocation offerings, and are addressing certain issues regarding physical collocation raised in pending petitions for reconsideration of earlier orders in this proceeding. We deny a petition for declaratory ruling filed by Teleport regarding restrictions on pricing flexibility for LECs that do not opt to offer physical collocation. We also reaffirm our density zone pricing system and other pricing flexibility rules under the new policy, but modify those rules to condition such pricing flexibility on expanded interconnection being operational under the rules we adopt in this order.

B. Background

5. In earlier orders in this proceeding, we required the Tier 1 local exchange carriers (LECs), other than participants in National Exchange Carrier Association (NECA) pools, to permit third parties to interconnect their transmission facilities with those of the LECs. In most cases, we gave interconnectors the right to obtain these connections by physically collocating their own terminating equipment in LEC central offices. We permitted all parties, including competitive access providers (CAPs), interexchange carriers (IXCs), and users, to obtain expanded interconnection. We required the LECs to set rates for expanded interconnection services based on direct costs plus reasonable overhead loadings. We also authorized additional pricing flexibility for LECs that are actually providing expanded interconnection.

6. We introduced our expanded interconnection policy in stages. We decided in September 1992 to require the LECs to provide expanded interconnection with their interstate special access services, primarily through physical collocation. In August 1993, we required the LECs to provide expanded interconnection with the switched network, again primarily through physical collocation, to enable interconnectors to compete more fully for the provision of switched transport service. We also adopted reconsideration orders that modified certain aspects of the Special Access

Expanded Interconnection Order in December 1992 and August 1993. The LECs' special access expanded interconnection tariffs became effective in June 1993. Their switched transport expanded interconnection tariffs became effective in February 1994. Both sets of tariffs are currently under investigation. As noted above, on June 10, 1994, the U.S. Court of Appeals for the District of Columbia Circuit issued an opinion stating that it would vacate the Special Access Expanded Interconnection Order and the First Reconsideration Order insofar as they require physical collocation for special access services, and would remand other aspects of the orders to the Commission for further proceedings.

II. PUBLIC POLICY ANALYSIS

7. Orders/Background. Expanded interconnection is a LEC offering that enables parties, by interconnecting their circuits with those of the LEC at a LEC central office through either physical collocation or virtual collocation, to compete on a facilities basis with certain LEC access services. Physical collocation, as defined by the Commission in this proceeding, is an offering that enables an interconnector to locate its own transmission equipment in a segregated portion of a LEC central office. The interconnector pays a tariffed charge to the LEC for the use of that central office space, and may enter the central office to install, maintain, and repair the collocated equipment. The specific details of virtual collocation could be defined in a number of different ways, as described further below in paragraphs 43-46. For purposes of this order, however, we define virtual collocation as an offering in which the LEC owns (or may lease) and exercises exclusive physical control over the transmission equipment, located in the central office, that terminates the interconnector's circuits. The LEC dedicates this equipment to the exclusive use of the interconnector, and provides installation, maintenance, and repair services on a non-discriminatory basis. Under our virtual collocation policy, the interconnector has the right to designate its choice of central office equipment, and to monitor and control the equipment remotely. The LEC connects this equipment to the interconnector's circuit outside the central office, with an interconnection point between LEC-owned facilities and interconnector-owned facilities as close as possible to the office. The standards governing physical collocation and virtual collocation arrangements are discussed in detail

below.

8. Earlier orders in this proceeding have required the Tier 1 LECs to provide expanded interconnection for interstate special access and switched transport. We found that expanded interconnection would promote greater competition in the special access and switched transport markets, and thereby produce substantial public interest benefits. We concluded that such competition, like competition in the markets for long distance and customer-premises equipment (CPE), should encourage LECs and their competitors to operate more efficiently, deploy new technologies facilitating innovative service offerings, increase the choices available to access customers, and reduce the prices of services subject to competition. We found that, given the pricing flexibility we granted to the LECs and (in the case of switched transport) the application of the transport interconnection charge to both LECs' and interconnectors' customers, expanded interconnection would not have any significant adverse impact on universal service. Thus, based on the record, we concluded that the likely benefits of expanded interconnection outweighed any potential disadvantages.

9. Discussion. In response to the court's decision, we first reaffirm our analysis and conclusion in the Special Access Expanded Interconnection Order and the Switched Transport Expanded Interconnection Order that expanded interconnection for special access and switched transport is in the public interest. Our expanded interconnection policy is designed to facilitate competition for special access and switched transport services, essentially by making it possible to buy only those LEC transmission and distribution links that a customer wants, and to combine those links with the services of a competitor. This policy enables the LECs' competitors to offer transmission segments that can substitute for the previously bundled segments offered by the LECs, and to connect their own transmission segments with transmission and distribution links that the LECs continue to provide. As our experience with the long-distance and customer-premises equipment markets demonstrates, increased competition among interstate special access and switched transport service providers should increase customer options, reduce rates, and speed the introduction of new technologies, and thereby stimulate economic growth. We reaffirm that these

benefits of expanded interconnection outweigh any disadvantages of the policy.

10. We next conclude that, although expanded interconnection through physical collocation is the optimal means to realize these benefits, expanded interconnection through virtual collocation also produces these benefits and is in the public interest. Both virtual collocation and physical collocation enable electronic equipment dedicated to an interconnector's use to terminate that interconnector's transmission links and to interconnect them with the LECs' network equipment inside LEC central offices. Without dedicated network equipment located in the central office, interconnectors would be required to buy LEC transmission links that are not needed with collocation. This would make it much more costly to provide competitive access, inhibit interconnectors' ability to price competitively with LECs, and limit the extent of competition for transmission services. Specifically, interconnectors would be required to buy LEC transmission service between interconnector equipment located outside the central office and the central office itself, which is a key point of network traffic aggregation. Dedicated network equipment in the central office allows interconnectors to provide their own transmission facilities to gain access to the traffic aggregated at the central office, and fosters competition in the provision of such transmission facilities.

11. Moreover, the technical parameters of the equipment currently used in communications networks make it necessary in most situations to locate the circuit terminating equipment dedicated to an interconnector's use in the LEC central office. To interconnect two communications circuits (e.g., that of the LEC and that of the competitor), the electronic equipment that terminates each of the circuits must be connected together, or "cross-connected." The technical standards for currently available cross-connect technology require that a cross-connecting cable be no longer than 450 feet, including cable bends. In most LEC central office buildings, all cable enters the building through underground conduits, runs into a cable vault, climbs up risers and sometimes passes through distribution frames, into a secure, properly conditioned room that is often located on the second or higher floor of the building. There are substantial practical obstacles to interconnectors' obtaining space for their equipment in buildings close

enough to LEC central office buildings to meet the 450 foot constraint. Thus, the current limitation on the length of cross-connect cables imposes a critically important technical constraint. In most cases, it is not feasible to install a cross-connect cable between the electronic equipment terminating LEC circuits and the equipment terminating a competitor's circuits without duplicative equipment, such as additional repeaters, unless all the equipment is located in the same building -- the LEC central office.

12. Thus, for the reasons set forth above and in our earlier orders, we conclude that collocation of circuit terminating equipment within LEC central offices serves the public interest and is necessary to satisfy our policy goals fully. In our earlier orders, we concluded that physical collocation best ensures that our objectives are fulfilled. If physical collocation is unavailable, however, we conclude that virtual collocation is the best alternative to serve our public interest objectives. We reaffirm and incorporate herein our reasoning and conclusion in the Special Access Expanded Interconnection Order and the Switched Transport Expanded Interconnection Order that we have authority, pursuant to Sections 1, 4(i), 201, 202, 205, 214(d), and 218 of the Communications Act, to mandate expanded interconnection and impose the related requirements specified in this order.

III. INTERCONNECTION ARCHITECTURE

A. Physical and Virtual Collocation

13. Orders/Background. Our previous orders in this proceeding required the LECs to provide expanded interconnection through physical collocation in all central offices for which interconnectors make a bona fide request. We allowed LECs to apply for exemptions from this requirement and provide virtual collocation instead of physical collocation in central offices in which space for physical collocation is unavailable, and in states that had adopted specified virtual collocation policies. We found that the provision of central office space used for physical collocation is incidental to communications, thus rendering it a communications service under Section 3(a) of the Communications Act, and that provision of such space is a common carrier service. We therefore concluded that we have authority to impose Title

II regulation, including tariffing requirements, on the provision of such space. We justified our mandatory physical collocation rules as an exercise of our authority under Section 201(a) of the Act to "establish physical connections with other carriers." We also concluded that the physical collocation requirement is not a "taking" under the Fifth Amendment of the Constitution, and that even if it were, such a taking would constitute a lawful exercise of our statutory authority. Our conclusions with respect to our statutory authority to mandate physical collocation, however, were rejected by the court in *Bell Atlantic v. FCC*.

14. Positions of the Parties on Reconsideration. In petitions for reconsideration of the Special Access Expanded Interconnection Order and other orders in this proceeding, the LECs reiterate their arguments against mandatory physical collocation and the CAPs and other parties reiterate their arguments in favor of it. Some CAPs, however, believe that expanded inter-connection through properly structured virtual collocation is an effective alternative to promote increased local access competition. The non-dominant IXCs (i.e., IXCs other than AT&T) argue that under the mandatory physical collocation regime, LECs should also be required to offer virtual collocation on a generally tariffed basis at every point at which they offer physical collocation, pointing out some of the potential advantages of virtual collocation. They contend that many inter-connectors may prefer virtual collocation, LECs may be able to provide central office equipment and services more efficiently than interconnectors, virtual collocation would conserve central office space and enable more interconnectors to enter, and widespread virtual collocation would enable more IXCs to obtain services comparable in total cost to those obtained by AT&T.

15. Ameritech and USTA argue that LECs should be allowed to choose whether to offer physical or virtual collocation. They assert that virtual collocation entails substantial, burdensome implementation problems and costs (such as providing rapid installation intervals demanded by interconnectors and training technicians to repair and maintain different types of inter-connector equipment). They assert that, if LECs are already required to provide physical collocation, it would be unreasonably burdensome for the LECs to be required to incur the unique

implementation problems and costs associated with virtual collocation (e.g., training technicians to maintain and repair interconnector equipment at short intervals) even in offices where there is no demand.

16. Discussion. Remand and New Mandatory Virtual Collocation Policy. The Bell Atlantic v. FCC decision presents practical difficulties for interconnectors and their customers even before the issuance of the court's mandate. For example, interconnectors (or their customers) may be reluctant to activate new circuits to their physical collocation nodes in LEC central offices before the issuance of the mandate since some LECs may discontinue their physical collocation offering if and when the mandate issues. At the same time, many LECs have not tariffed a generally available virtual collocation offering as an alternative for interconnectors.

17. Accordingly, in light of the D.C. Circuit's Bell Atlantic v. FCC decision and in anticipation of remand, we are adopting a new expanded interconnection policy that will facilitate the continued, uninterrupted provision of expanded interconnection and will reduce the practical problems that could arise in the wake of the court's decision. As we explain in greater detail below, we believe that this new expanded interconnection policy is fully consistent with the court's view of our authority. Accordingly, we will require, as of September 1, 1994, that Tier 1 LECs (other than NECA pool members) file generally available tariffs offering expanded interconnection through virtual collocation. The standards that will govern virtual collocation arrangements are discussed in detail below. LECs will be exempted from this requirement in central offices where they opt to provide physical collocation subject to the standard described in detail below.

18. Legal Authority. We find primary authority for the modified expanded interconnection requirements adopted in this order in Section 201(a) of the Communications Act of 1934, as amended. That provision authorizes the Commission, where necessary or desirable in the public interest, to order common carriers to establish physical connections with other carriers, whether or not the common carriers might choose to do so voluntarily. As applicable here, the LECs are "common carriers," the expanded interconnection arrangements required under the terms

of this order are forms of "physical connections," and most interconnectors -- including CAPs and IXC's -- are "carriers" within the meaning of Section 201(a). Moreover, as set out in detail above, we have concluded that the provision of the expanded interconnection services required in this order will produce substantial public interest benefits by removing unnecessary barriers to increased competition. Such public interest benefits have lawfully formed the basis for past mandatory interconnection orders, and we find that such benefits justify the interconnection requirements adopted here with respect to interconnectors that are carriers.

19. We find, in addition, that the separate language in Section 201(a) requiring telephone companies to "furnish communications service upon reasonable request" gives the Commission authority to order the LECs to provide expanded interconnection services to non-carrier interconnectors. In this regard, it has been established Commission policy -- informed by the statutory requirements that rates and terms for communications service be just and reasonable and not unreasonably discriminatory -- to prohibit differences in service rates and terms that are predicated upon the type of customer involved. We see no reason to depart from that general policy, particularly where, as here, we find affirmative public interest benefits in the broad availability of expanded interconnection services.

20. We also conclude that Sections 1, 4(i) and 214(d) of the Communications Act buttress further our legal authority to order the expanded interconnection services set out in this order, including the requirement that LECs provide, for a just and reasonable charge, dedicated circuit terminating equipment designated by the interconnector. Section 1 of the Act states that the purpose of the Commission is to regulate "interstate and foreign commerce in communications by wire and radio so as to make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service." Section 4(i), the FCC's "necessary and proper clause," grants us broad power to take actions necessary to meet our statutory mandate. Finally, Section 214(d) authorizes the Commission "to require by order any carrier ... to provide itself with adequate facilities for the expeditious and efficient performance of its service as a common carrier." We find that, to the extent that there is any doubt whether Section

201(a) alone fully authorizes all aspects of our expanded interconnection order, these sections of the Act provide that supplemental authority.

21. The foregoing discussion largely coincides with the analysis of legal authority that the Commission undertook in the Special Access Expanded Interconnection Order. We recognize that the D.C. Circuit, in *Bell Atlantic v. FCC*, vacated the mandatory physical collocation rules adopted in that order. However, there are differences between those rules and our new regime of mandatory virtual collocation (with an exemption for LECs choosing to offer physical collocation) that are fundamental to the court's analysis in that case.

22. The court's core finding in *Bell Atlantic* was that Section 201(a) did not "grant third parties a license to exclusive physical occupation of a section of the LECs' central offices." While noting that our power to "order 'physical connections' [was] undoubtedly broad of scope," the court refused to grant our interpretation the deference normally accorded agencies under *Chevron U.S.A. Inc. v. NRDC*, because it believed that such a physical occupation "would seem necessarily to 'take' property" under the Fifth Amendment standard established by the Supreme Court in *Loretto v. Teleprompter Manhattan CATV Corp.* While we do not share the D.C. Circuit's apparent view that mandatory physical collocation requirements would constitute a "taking" of property, or its view that *Chevron* deference was unwarranted, factual differences between the mandatory physical collocation regime at issue in *Bell Atlantic* and the modified requirements we are adopting here completely distinguish this order from the facts of *Loretto*.

23. In *Loretto*, the Supreme Court found that a New York statute that required landlords to permit cable television companies to install facilities on their buildings effected a Fifth Amendment taking of the landlords' property for which just compensation was due. The Court noted that a takings analysis usually involves essentially ad hoc, factual inquiries regarding factors such as the degree of interference with investment-backed expectations, the economic impact of the regulation, and the character of the governmental action. However, it distilled from earlier takings jurisprudence a pattern that when the character of the regulation reaches the form of a "permanent physical occupation," that factor alone becomes determinative and a

taking has occurred. While cautioning that its holding was a very narrow one, the Court explained that a permanent physical occupation of property "effectively destroys" the bundle of rights usually associated with property ownership -- including the right to exclude others.

24. We continue to believe that the mandatory physical collocation requirements we previously adopted should not properly be seen to create a takings issue under *Loretto*, both because, under the technological and competitive circumstances that we previously advanced to support such a regime, telephone companies have no reasonable historically rooted expectation of being able to exclude interconnectors, and because the telephone companies were permitted to recover just and reasonable rates for the mandated service. In any event, however, the "permanent physical occupation" analysis that is central to *Loretto* has no bearing on the modified expanded interconnection rules that we are adopting here, which require only virtual collocation (with an exemption for carriers voluntarily choosing to offer physical collocation subject to full regulation as a communications common carrier service).

25. The mandatory virtual collocation policy we adopt here in no way constitutes a taking of property. Under virtual collocation, unlike physical collocation, interconnectors have no right to enter LEC-owned premises or to install their own equipment at such locations. Instead, the LECs purchase or lease equipment designated by the interconnector, and install, maintain, and repair this equipment themselves (or through their designees) in their central offices. While the interconnector-designated equipment is dedicated to the use of a particular interconnector, such dedication is not unusual in the telecommunications industry, particularly where, as here, the interconnector does not exert physical control over such equipment. (The monitoring and control functions that the LECs must permit interconnectors to perform are conducted from remote locations and involve only the interconnector's ability to track, reconfigure, and otherwise supervise the operation of the communications circuits terminating in the designated equipment.) For example, telephone companies generally dedicate equipment to the use of particular customers in providing private line service. Even local exchange service involves the use of certain pieces of equipment that are dedicated to the exclusive use of a particular customer, such as the

line cards used in LEC switches and wire "drops" extending from the LEC's distribution cable to the customer's residence.

The expanded interconnection requirement that LECs dedicate circuit terminating equipment to particular customers may -- as with such other "dedicated" services -- affect the use to which the telephone company can apply its property, but it in no way constitutes a physical occupation of the LECs' property within the contemplation of Loretto.

26. We also note that the physical collocation standards we are adopting for telephone companies that voluntarily choose to implement expanded interconnection through physical collocation (thereby gaining an exemption from the virtual collocation requirements) do not implicate Loretto. Loretto's per se rule, where applicable at all, applies only to physical "invasions." Here, the choice to incur physical collocation obligations is voluntary and allows the carrier to avoid the virtual collocation requirements that the Commission otherwise would lawfully impose. This flexibility was not available to LECs under the expanded interconnection regime reviewed by the Bell Atlantic court. Thus, the availability of the exemption for carriers choosing physical collocation makes the regulatory regime we are adopting less burdensome, rather than more so. We find, moreover, that the requirements we are imposing for carriers making that choice are necessary to the pro-competitive purposes of our expanded interconnection policy.

27. Finally, we find -- and the court in Bell Atlantic did not suggest otherwise -- that the modified rules we are adopting easily survive the more factually sensitive standards applicable in "regulatory takings" analysis. Indeed, we read the court's decision as encouraging the Commission to "consider whether and to what extent virtual co-location should be imposed" in the absence of physical collocation. In determining what constitutes a regulatory taking, the courts focus on three main factors: (1) the character of the government action; (2) the regulation's interference with investment-backed expectations; and (3) its economic impact.

28. With respect to the first factor, the Supreme Court has stressed that "[a] 'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government, ... than when the interference arises from some

public program adjusting the benefits and burdens of economic life to promote the common good." As already discussed, the regulations at issue here do not constitute a physical invasion of the LECs' property. Rather, they adjust somewhat the "benefits and burdens of economic life to promote the common good." In particular, our expanded interconnection requirements are designed to and, we believe, will increase competition, lower prices, lead to varied new services, and help improve the productivity of our economy as a whole. While the new rules impose some increased regulatory burdens on the LECs, they also provide those carriers with offsetting pricing flexibility with which to compete in the more competitive environment.

29. Our action, moreover, in no way interferes with the LECs' reasonable investment-backed expectations concerning the use of their property. As a general matter, private property used for common carrier purposes has always been imbued with a public character. Given their position as common carriers controlling bottleneck facilities, the LECs must expect that they will be subject to non-streamlined regulation as dominant carriers. Indeed, as already noted, this Commission frequently has ordered common carriers to provide access to bottleneck facilities in order to increase competition and facilitate the development of new services. The Commission has also taken steps to require telephone companies to provide new service features and technologies that we have found would promote competition and improve the functioning of the public telephone network. The LECs here are exchanging compliance with lawful Commission regulation for the privilege, with attendant licenses and franchises, of providing telephone service to the public as interstate dominant common carriers. The Supreme Court has employed similar analysis in finding that no taking has occurred in other heavily-regulated industries.

30. Finally, we find under the last prong of the "regulatory takings" analysis, that virtual collocation does not result in a total, or even a substantial, economic deprivation of the LECs' economic property interests. The LECs will continue to be able to use their property, including the equipment dedicated to interconnectors, in the provision of common carrier services for which they are entitled to charge just and reasonable rates. The new, more competitive environment that expanded interconnection will foster will undoubtedly present the LECs with increased competitive

challenges, but the LECs have no property right to continuation of a monopoly or quasi-monopoly environment for the provision of interstate access service. Our decision specifically permits LECs to recover from interconnectors the cost of providing expanded interconnection. We are also granting the Tier 1 LECs continued pricing flexibility in conjunction with expanded interconnection. We do not expect that our virtual collocation requirements will impose undue burdens on the LECs, and have structured our requirements to avoid unnecessary difficulties. To the extent that virtual collocation requirements may be shown, in specific central offices in which space is extremely limited, to be prohibitively burdensome, the waiver process is available as a safety valve.

31. Physical Collocation Exemption. A LEC will be exempted from our mandatory virtual collocation requirement at any specific central office or offices for which the LEC opts to offer under tariff expanded interconnection through physical collocation, subject to full regulation by the Commission as a communications common carrier service, including the standards we adopt below for such offerings. We believe that both LECs and interconnectors can benefit from the flexibility provided by such an exemption. We conclude that physical collocation provides an adequate substitute for virtual collocation only if it is offered on a tariffed basis, with generally available rates, terms and conditions, in order to protect interconnectors from potential anti-competitive LEC behavior. Therefore, a LEC's physical collocation offering will exempt it from the general requirement to offer virtual collocation under tariff only if the LEC explicitly consents to offer physical collocation as a communications common carrier offering under non-streamlined Title II regulation.

32. A LEC will qualify for an exemption from the mandatory virtual collocation requirement only if it voluntarily provides physical collocation subject to all the rules relating to physical collocation that are set forth in this order. As part of that regulation, a LEC that has chosen to provide physical collocation at particular central offices will not be permitted to withdraw its physical collocation offering for customers' existing physical collocation nodes at those offices, for either current or new circuits, without Commission certification pursuant to Section 214 of the Communications Act that such a discontinuation of service will not adversely affect the present or

future public convenience and necessity. The exemption from the virtual collocation requirement will apply as long as the LEC offers physical collocation. If a LEC has offered physical collocation pursuant to this exemption, and subsequently withdraws its physical collocation offering for new customers at a given location, it will no longer qualify for the exemption, and will be required to offer virtual collocation on a generally available, tariffed basis at that location. Similarly, if a LEC has offered virtual collocation on a generally available, tariffed basis, and later wants to withdraw that offering in a particular central office because it qualifies for the physical collocation exemption in that office, it may withdraw the offering for new interconnectors. In such a case, however, the LEC must continue to make virtual collocation available for existing and new circuits of interconnectors that are already using virtual collocation in that office, unless it obtains Commission certification that such a discontinuation of service will not adversely affect the present or future public convenience and necessity.

33. We find that we have authority to impose these common carriage standards on the LECs' voluntary physical collocation offerings. As previously explained in our Special Access Expanded Interconnection Order, all elements of physical collocation are "communications services," including the provision of central office space, which falls within the statutory definition because it is "incidental" to communications. Moreover, absent the common carriage standards we are imposing on the provision of physical collocation, LECs could undermine the pro-competitive objectives of our expanded interconnection policies, either by charging unreasonably high rates to interconnectors, or by giving special discounts to favored customers. In these circumstances, where we are allowing physical collocation as a substitute for the mandatory virtual collocation requirements that we otherwise would lawfully impose, our Title I powers allow us to impose common carriage conditions on that choice. Moreover, because the LECs are voluntarily choosing to employ physical collocation, we find that that choice constitutes a voluntary holding out so as to confer common carriage status under Title II of the Act.

34. In *Southwestern Bell Telephone Co. v. FCC*, the D.C. Circuit remanded an order of the Commission requiring LECs to continue offering under general tariff "dark fiber"

services that the carriers had voluntarily initiated under individual case basis (ICB) tariffs. The Commission in that case, however, had never made an affirmative finding that the dark fiber services that the carriers had initiated on a limited, individually negotiated basis, needed to be offered on a common carriage basis in order to advance the public interest objectives of the Communications Act. Rather, the Commission had simply found that because the carriers had documented their limited offerings by filing ICB tariffs, those filings alone conferred common carriage status upon the offerings under the voluntary "holding out" test established in NARUC I and NARUC II. The court in Southwestern Bell held that the mere fact of such filings, standing alone, was insufficient to impose general common carriage obligations on the LECs. By contrast, in this proceeding, we have explicitly determined, pursuant to Section 201(a) and other provisions of the Communications Act, that the expanded interconnection services we are requiring are necessary or desirable in the public interest, and that any carrier choosing the physical collocation option must provide such service as a common carrier. This affirmative finding on the basis of an extensive record fully distinguishes this case from Southwestern Bell.

35. Alternative Interconnection Offerings. Although we are moving forward now with the mandatory virtual collocation regime defined herein in response to the court's order, we remain open to alternative interconnection arrangements that telephone companies may propose in waiver petitions, if those proposals satisfy the public interest objectives achieved by our virtual collocation requirements. Moreover, LECs are free to tariff alternative virtual collocation, physical collocation, or other arrangements that interconnectors may want to take in addition to the baseline arrangements satisfying the LECs' basic obligations under the rules adopted herein. Such alternatives may be negotiated between the parties, although such negotiated arrangements must be filed as tariffs to enable other interconnectors desiring the same arrangement in the same central office to obtain them. While LECs are not required to offer such negotiated arrangements, we envision that LECs and interconnectors will be able to cooperate in developing particular arrangements that meet their mutual needs.

36. Implementation. The LECs subject to expanded interconnection requirements

shall file tariffs offering virtual collocation as defined herein on September 1, 1994, to be effective on December 15, 1994. Given our previous experience with expanded interconnection tariffs, and the likely complexity and need for detailed review of these new tariffs, December 15 is the earliest date by which we can ensure that the tariffs will have undergone adequate review by the Commission's staff. LECs must amend their initial tariff filings by October 3, 1994 if they are required to tariff rates for services using additional interconnector-specified circuit terminating equipment. Petitions to reject or suspend and investigate any of these tariffs should be filed by October 14, 1994; replies will be due on October 31, 1994. LECs that wish to be exempted from the virtual collocation requirement must, on September 1, 1994, file any necessary tariff revisions to implement physical collocation in accordance with the rules set forth in this order, or notify the Chief, Tariff Division, Common Carrier Bureau, in writing that no such revisions are necessary and explain the basis for that conclusion. Unlike the procedure for obtaining exemptions from the current physical collocation requirement, we are not requiring LECs to obtain our advance approval before making use of the physical collocation exemption from the virtual collocation requirement. LECs will, however, be held to the rules set forth herein concerning physical collocation offerings made in lieu of the mandatory virtual collocation requirement.

37. We also emphasize that the mandatory physical collocation requirement adopted in our earlier orders, which the Bell Atlantic v. FCC court has stated it would vacate with respect to special access expanded interconnection, remains in effect until the court issues the mandate in that case, and the LECs may not propose to withdraw, suspend, or otherwise abrogate their current special access physical collocation offerings until then. Assuming the mandate does not issue before December 15, 1994, our rules requiring that LECs offer both special access and switched transport expanded interconnection through physical collocation will remain in effect until December 15, 1994.

B. Locations Where Expanded Interconnection Must Be Made Available

38. Orders/Background. In the Special Access Expanded Interconnection Order, we required LECs to make expanded interconnection for special access available in all end offices,

serving wire centers, and remote nodes used as rating points for special access. In the First Reconsideration Order, we modified this requirement, and decided that LECs must tariff expanded interconnection for special access initially only in a subset of offices that took account of inter-connectors' needs, as reflected in lists they submitted to the LECs. LECs were required to provide interconnection in additional offices upon bona fide request. In the Switched Transport Expanded Interconnection Order, we adopted the same approach as the First Reconsideration Order, and extended the requirements for switched transport expanded interconnection, on a bona fide request basis, to tandem offices and remote nodes or switches that serve as rating points for switched transport and that have the necessary space and technical capabilities.

39. Discussion. For purposes of implementing our mandatory virtual collocation regime, we require, as we did in the First Reconsideration Order, that LECs provide expanded inter-connection in a subset of their central offices in their initial tariffs. In this instance, LECs should initially tariff expanded interconnection in all offices in which it is currently tariffed. Under either virtual collocation or physical collocation, this approach reduces the burdens on the LECs, while making expanded interconnection available in all central offices in which interconnectors have a realistic interest in the near future. Under the mandatory virtual collocation rules, if a LEC receives a bona fide request to make expanded interconnection available in additional central offices, the LEC must file tariff revisions offering virtual collocation (or, if it qualifies for an exemption, physical collocation) in such offices within 45 days of receipt of such a request. Such tariff revisions shall be effective on 45 days notice or less. We also reaffirm that, under the policies adopted in this order, LECs must provide: (1) both special access and switched transport expanded interconnection at central offices that are classified as end offices and service wire centers, (2) special access expanded interconnection at remote nodes that are rating points for special access; and (3) switched transport expanded interconnection on a bona fide request at "stand-alone tandems" and at remote nodes that serve as rating points for switched transport and have the necessary space and technical capabilities to originate and terminate switched traffic.

IV. STANDARDS

40. Overview. In this section, we address the detailed standards that will govern mandatory virtual collocation. We also address the standards that will apply to physical collocation when it is offered to obtain an exemption from the virtual collocation requirement. Except for the policy changes described below, we conclude on the basis of the record previously compiled that the virtual collocation standards adopted in earlier orders in this proceeding should continue to apply under the new mandatory virtual collocation requirement. We also find that the standards we adopted as part of our mandatory physical collocation requirement remain appropriate in the context of physical collocation provided voluntarily under the new rules.

A. Standards Governing Virtual Collocation

1. In General

41. Orders. In the Special Access Expanded Interconnection Order, we rejected some LECs' contentions that the Commission should establish general interconnection goals or principles in lieu of detailed rules. Instead, we concluded that the adoption of detailed standards would speed the implementation of expanded interconnection by clarifying the rights and obligations of LECs and interconnectors, thereby reducing the disputes that could arise during the implementation process.

42. Positions of the Parties. In recent ex parte filings, CAPs have argued that virtual collocation should be defined to impose more stringent obligations on the LECs. For instance, some CAPs urge that the Commission require virtual collocation arrangements to be "technically and economically comparable to actual collocation." Other CAPs argue that any expanded interconnection arrangement should be "technically and economically comparable" to the LEC's own internal interconnections. Bell Atlantic, by contrast, argues that the Commission's existing virtual collocation standards are fully adequate. Ameritech asserts that the Commission should not mandate any specific interconnection arrangement, but should just set general standards with the choice among alternatives left strictly to the LECs. US West argues that it should be required to offer only a standardized list of central office equipment under virtual collocation, rather than permitting interconnectors freedom to designate any equipment they choose.

43. Discussion. The specific details of virtual collocation could be defined in a number of different ways. We here consider a range of different standards. At one extreme, we could adopt the CAPs' proposal to require virtual collocation offerings to be technically and economically comparable to physical collocation, from the perspective of the interconnector. In our view, this standard would impose burdens on the LECs that are unnecessary to protect inter-connectors' interests, and in some cases may be unenforceable. Moreover, a court applying the Bell Atlantic v. FCC decision could construe mandatory virtual collocation under this standard to be an unauthorized taking of property, because this standard would appear to impose requirements that, in practice, are equivalent to mandatory physical collocation.

44. Under the approach we choose here, we adopt rules governing mandatory virtual collocation that are similar to the rules we adopted in earlier orders in this proceeding to govern virtual collocation. Under these rules, LECs will be required to dedicate to interconnectors' use in terminating the interconnectors' circuits any kind of central office basic transmission equipment reasonably specified by the interconnector. LECs will be required to install, maintain, and repair this equipment, at a minimum, under the same time intervals and with the same failure rates that apply to comparable LEC equipment not dedicated to interconnectors. Interconnectors will be entitled to monitor and control this equipment remotely. LECs will be exempt from the virtual collocation requirement if they provide physical collocation offerings that satisfy our requirements. Tariffing, rate structure, and pricing requirements will ensure that virtual collocation is generally available on a non-discriminatory basis and fulfills our public interest objectives. As explained in detail elsewhere in this order, we conclude that these standards ensure that interconnectors have a realistic opportunity to compete with LEC special access and switched transport services, while also minimizing burdens on the LECs and satisfying the strictures on our authority announced in Bell Atlantic v. FCC.

45. Under a less detailed approach, rather than giving interconnectors the right to designate their choice of central office transmission equipment, we could require LECs and inter-connectors to negotiate a limited array of equipment that would satisfy

both of their needs. Under an even less specific approach, we could allow the LECs to provide virtual collocation by offering a limited array of central office transmission equipment reasonably selected by the LEC, not the interconnector. Interconnectors would have the right only to select one of the types of equipment offered by the LEC. Under either of these approaches, the requirements discussed in this order would apply in other respects: remote monitoring and control by interconnectors; LEC installation, maintenance, and repair standards; and rate structure and pricing principles. We conclude that these approaches are less satisfactory than the standards we adopt in this order, because any restrictions in the choice of equipment limits interconnectors' ability to determine the configuration of circuits in their network.

46. On the other hand, in the unlikely event a court were to hold that we lack authority to require that interconnectors be able to specify the virtually collocated equipment dedicated to their use, we intend that this requirement be replaced by the first approach described in the preceding paragraph, under which LECs and interconnectors would negotiate the range of equipment available for virtual collocation. We find this to be an acceptable alternative that promotes most of our public interest objectives, and we would adopt it in place of the requirements set forth herein. If a court were to hold that we lack authority to impose even that approach, we intend that the second approach described in the preceding paragraph, under which the LEC specifies the equipment that the interconnector could select, be used as a replacement. Moreover, if a court were to hold that we lack authority to impose any of the other specific requirements included in the standards described in paragraph 44, we intend that the offending provision be removed. We find that these approaches would be acceptable, although substantially less desirable, options.

2. Equipment Designation

47. Orders/Background. Our existing rules define virtual collocation as "an offering that enables interconnectors to designate or specify equipment needed to terminate basic transmission facilities."

48. Positions of the Parties. US West argues that it should be required to offer only

a standardized list of central office equipment under virtual collocation, rather than permitting interconnectors freedom to designate any equipment they choose. The CAPs generally argue for imposing more stringent requirements regarding interconnectors' rights to specify equipment under a mandatory virtual collocation regime. MFS argues that it should not be required to use LEC-specified equipment, arguing that this would require it to modify its centralized network management system to accommodate the unfamiliar equipment.

49. Discussion. We reaffirm that under our virtual collocation policy, interconnectors have the right to select the type of central office equipment dedicated to their use. The right to designate equipment is critical to enable interconnectors to determine the configuration of their circuits that terminate in such equipment. In many cases, CAPs and other parties may deploy equipment in their networks that differs from the types of equipment in LECs' networks. Under current technology, a circuit cannot function unless compatible equipment, typically of the same type and made by the same manufacturer, is deployed on both ends. Thus, a broad interconnector right to designate equipment helps ensure that virtual collocation provides a realistic opportunity for access competition.

50. In addition to our requirement that LECs offer virtual collocation of any type of transmission equipment reasonably requested by interconnectors, we also require that LECs offer virtual collocation through generally available tariffs. We are specifying tariffing procedures for the LECs' service offerings involving virtual collocation equipment to ensure that both these requirements are satisfied. The procedures we adopt are comparable to the process we designed in the First Reconsideration Order to govern the tariffing of central offices, which accommodated both the LECs' need for certainty in devising their physical collocation tariffs and the interconnectors' desires that expanded interconnection be offered in specified locations. In that order, we directed the LECs to publish lists of central offices in which physical collocation would be offered, authorized the interconnectors to request that the lists be expanded to include additional offices, and required the LECs to file tariffs that took into account the interconnectors' submissions. We also required the LECs, after the initial physical collocation tariffs took effect, to revise their tariffs to offer physical collocation in additional central offices upon bona fide

requests from interconnectors.

We conclude that an analogous process would be useful in assuring that interconnectors' needs for particular types of equipment are satisfied, while also giving the LECs greater certainty about the range of equipment likely to be used initially, and facilitating a smooth process of filing and reviewing virtual collocation tariffs.

51. Prospective users of virtual collocation may request that LECs include specific types of equipment that they are likely to use initially, and would like to have included in the tariffs. If they submit such requests to the LECs by August 1, 1994, the LECs are required to include specific rates for the requested equipment in their virtual collocation tariffs filed on September 1, 1994. Prospective users of virtual collocation may continue to give the LECs requests for tariffing specific equipment through September 1, 1994. By October 3, 1994, LECs must amend their initial tariff filings to include specific prices for all of the equipment identified by interconnectors by September 1. During the period from September 1 to December 15, interconnectors may continue to submit equipment requests, although in order to facilitate an orderly tariffing process, we will permit LECs to treat those requests as if they were received on the day after the tariffs become effective, subject to the procedure outlined in the next paragraph.

52. After the initial tariffs become effective, interconnectors will continue to have the right to specify additional types of virtual collocation equipment. An interconnector may request that a LEC modify its virtual collocation tariffs to offer additional types of transmission equipment. The LEC will be required to modify its tariff accordingly within 30 days of receiving such a request. Such tariff changes should be scheduled to become effective on 30 days notice. This procedure will ensure that interconnectors can make rapid modifications to their networks and obtain corresponding additions to the LEC's offerings of central office equipment that is dedicated to their use. The requirement ensures that interconnecting parties can upgrade their networks to take account of technological improvements, and will help achieve our objective that access competition through virtual collocation spurs technological progress.

53. These equipment designation requirements are unlikely to impose substantial burdens on the LECs. We anticipate that in most cases, LECs will not be

called on to serve more than a few interconnectors in any given central office, and the number of different types of dedicated transmission equipment is likely to be reasonably limited given that there is a relatively small number of manufacturers of such equipment. In addition, we reaffirm that, under our new expanded interconnection policy, LECs may proscribe the use of interconnector-designated equipment or practices that represent a significant and demonstrable technical threat to the LEC network. We will scrutinize any such allegations brought to our attention carefully, however, and expect them to be rare.

3. Installation, Maintenance, and Repair

54. Orders/Background. Virtual collocation requires that the LEC install, maintain, and repair the central office electronic equipment dedicated to an interconnector's use. Existing rules require the LECs, at a minimum, to install, maintain, and repair this equipment under the same time intervals and with the same failure rates that apply to the performance of similar functions for comparable LEC equipment. We have required LECs to keep records and file annual reports on the installation, maintenance, and repair times and failure rates for comparable LEC and interconnection equipment and circuits.

55. Positions of the Parties. In petitions for reconsideration, Teleport and ALTS argue that the LECs should be required to install, maintain, and repair virtual collocation equipment to meet the interconnector's standards rather than the LEC's standards, so that CAPs can control the quality of their services and so that virtual collocation can be technically and economically equivalent to physical collocation. The LECs respond that the absolute equivalence standard requested by the CAPs is unworkable and could disadvantage LEC customers other than interconnectors. The LECs further assert that such a standard is unnecessary because either interconnectors accept LEC performance standards for the LEC-provisioned transmission segment to which the interconnector is connecting or they can bypass the LEC entirely rather than interconnecting. The LECs add that the existing virtual collocation standard prevents discrimination and ensures efficient service to interconnectors.

56. In more recent filings, CAPs argue that LEC charges for

installation, maintenance, and repair under their current virtual collocation tariffs are excessive. MFS asserts that LECs have charged interconnectors large sums for training multiple shifts of LEC personnel in each office to install, maintain, and repair interconnector-designated equipment. MFS also states that LECs have required interconnectors to purchase "excessive amounts" of spare parts to ensure prompt repair, and have then charged for the storage of those parts. The solution the CAPs propose is to require all LECs that certify third parties to install, maintain, and repair equipment in their central offices to certify interconnectors as well on a non-discriminatory basis, and to allow the interconnectors to perform these functions themselves. LECs have also indicated concerns about being held responsible for installing, maintaining, and repairing unfamiliar equipment.

57. Discussion. In our virtual collocation regime, the LECs are responsible for installing, maintaining, and repairing the central office equipment that they own and dedicate to the use of interconnectors. In general, we reaffirm our conclusion in earlier orders that LECs must provide these services, at a minimum, under the same time intervals, and with the same failure rates, that apply to the performance of similar functions for comparable LEC equipment. Failure to provide these functions on equipment dedicated to interconnectors in a manner that is at least as timely and efficient as the service the LECs provide themselves for services that compete with interconnectors' offerings constitutes an unreasonable practice under Section 201(b) of the Communications Act. We conclude, contrary to the arguments of the LECs, that this standard will not impose disproportionate burdens on the LECs.

58. Evidence in the record shows that many LECs have procedures for certifying or approving equipment manufacturers and independent contractor personnel to install electronic equipment, and in some cases, to maintain and repair such equipment. Use of outside contractors can reduce LEC costs, particularly in cases when LEC employees do not routinely install, maintain, or repair particular types of equipment, or are not qualified to do so. Using outside contractors could reduce or eliminate a LEC's need to train employees to provide service on types of interconnector-designated equipment that are not typically deployed elsewhere in the LEC's network. Similarly, use of outside contractors would allow interconnectors to avoid the

substantial costs that might be incurred to train LEC personnel to install, maintain, and repair interconnector-designated equipment with which LEC personnel are unfamiliar. Thus, LECs, as well as interconnectors, may benefit from the use of outside contractors. Of course, if an interconnector designates equipment that a LEC currently uses in a given central office, the LEC will not need to provide training to its employees and therefore will not be permitted to charge the interconnector for training LEC personnel to service that equipment.

59. Virtual collocation customers should not be required to pay for costly training of LEC employees if the LEC uses qualified outside contractors to install, maintain, and repair other equipment in its offices. We therefore conclude that LECs that permit outside service representatives to enter their central offices to install, maintain, or repair LEC equipment must permit outside representatives to provide these services for the equipment dedicated to interconnectors' use under virtual collocation. If LECs can choose from a range of levels of service quality offered by outside service representatives (e.g., repair times), the LECs must offer the same range of service options to virtual collocation customers in their tariffs. LECs may impose conditions, including certification and bonding requirements, on the contractors that provide service for equipment dedicated to interconnectors, but these requirements must be the same as the requirements that apply to contractors that provide service for other LEC equipment. If LECs use outside contractors to install, maintain, or repair equipment, they must reasonably consider both price and service quality in selecting contractors to provide these services.

60. If an interconnector meets the LEC's standards for outside service representatives, then the interconnector should be certified as a possible outside contractor. Indeed, we see mutual benefits to the LEC and interconnector deriving from use of a certified interconnector's representative for these functions, potentially simplifying the operation of virtual collocation. However, in light of the D.C. Circuit's decision striking down arguably similar requirements in *Bell Atlantic v. FCC*, we do not here require a LEC to select the interconnector to provide these services for the LEC's equipment dedicated to the interconnector. Although LECs are generally required to consider cost in selecting a contractor, a LEC will not be required to

choose an interconnector to perform installation, maintenance, and repair on this basis alone. We therefore do not adopt MFS's proposal to give interconnectors the right to perform installation, maintenance, and repair of the LEC equipment dedicated to their use. LECs that do not permit outside contractors to enter their central offices are not required to permit such contractors to provide service for equipment dedicated to interconnectors' use, although they are permitted to do so, and may find it the most advantageous way of implementing virtual collocation. Thus, any decision to grant physical access to certified interconnector representatives will be voluntary on the part of the LEC.

61. To provide a basis for monitoring compliance with our prohibition of discrimination in the installation, maintenance, and repair of virtual collocation equipment, we require the LECs to report on the timing and failure rates for providing such services for comparable LEC and interconnector-dedicated equipment and circuits. In light of the importance of non-discriminatory installation, maintenance, and repair under our new mandatory virtual collocation policy, we increase the frequency of these required reports from annually, as currently required, to quarterly. We delegate authority to the Chief, Common Carrier Bureau, to specify the format and timing of these reports. LECs are not subject to this reporting requirement if they are exempt from the virtual collocation requirement because they provide physical collocation in all central offices in which they provide expanded interconnection.

62. We find no reason to impose more stringent installation, maintenance, or repair standards upon LECs. Specifically, we decline to require the LECs to install, maintain, and repair interconnectors' virtual collocation equipment to meet the interconnectors' time intervals. We reaffirm our conclusion in the Special Access Expanded Interconnection Order that such a requirement would be difficult or impossible to enforce, because it could require LECs to maintain and repair their competitors' equipment faster and more effectively than the LECs maintain and repair their own. Moreover, such a requirement would be of limited utility because the interconnectors already essentially acquiesce to LEC performance standards on the LEC circuits to which interconnector circuits are connected, and because interconnectors can achieve a high level of reliability through the use of electronics with redundant components and remote monitoring and

control rather than through expedited repair procedures.

4. Other Requirements for Virtual Collocation

63. Orders/Background. In earlier orders in this proceeding, we held that the cross-connect element, covering short cable connections from the LEC distribution frame to the central office electronic equipment dedicated to or owned by the interconnector, should be tariffed at a study-area-wide averaged rate under both virtual collocation and physical collocation. We concluded that certain other charges, such as labor and materials charges for installation, maintenance, and repair services, may differ in different central offices due to cost variations, but should be uniform for all interconnectors in each individual central office. We allowed LECs and interconnectors to negotiate the rates, terms, and conditions for the use of different types of central office electronic equipment dedicated to interconnectors' use in order to address particular interconnectors' needs, but required such negotiated arrangements to be made available to similarly situated interconnectors in the same central office under tariff.

64. Discussion. Except as stated elsewhere in this order, we reaffirm our existing rules on the tariffing of virtual collocation offerings, for the reasons stated in our original orders. We reaffirm that the cross-connect element must be tariffed at a study-area-wide averaged rate that is the same for both virtual collocation and physical collocation for LECs that choose to offer physical collocation. In addition, because we now recognize that the cost of transmission equipment does not vary in different locations, we require that LECs' rates for particular types of equipment offered to interconnectors may not vary within a study area. While we are permitting certain cost-based variations in the rates for specific types of equipment used by different interconnectors, as described below, such rate differences are not dependent on the characteristics of particular central offices or locations within a study area. We also reaffirm, in the context of our mandatory virtual collocation policy, that rates for elements of virtual collocation other than the cross-connect element and elements recovering the cost of central office equipment may reasonably vary in different locations corresponding to cost differences.

65. In unusual circumstances, space may be so limited in particular central offices that even virtual collocation is infeasible in those locations. As noted in our earlier orders, we will

entertain requests for waiver of the requirement that virtual collocation be made available in such offices.

66. Finally, SW Bell argues that the requirement in our earlier orders that it take interconnector needs into account in planning its space needs for the future converts virtual collocation into a taking of its property. SW Bell contends that virtual collocation requires LECs to reserve central office space anticipated to be requested by interconnectors and refrain from using that space for their own purposes, and asserts that these requirements effectively deprive the LECs of all interest in that reserved space. SW Bell seems to have misinterpreted the language of our earlier order as requiring LECs affirmatively to set aside space in new and existing central offices to meet anticipated virtual collocation requests. We now clarify that LECs need not set aside segregated space, which they could not then use for their own purposes, in anticipation of virtual collocation requests. Virtual collocation arrangements do not involve the reservation of segregated central office space for the use of interconnectors. LECs must consider the needs of virtual collocation customers, just as they consider the demand for other services in planning space usage. We will not tolerate any discrimination against interconnectors vis-a-vis other customers, however.

B. Standards Governing Physical Collocation

1. Space Allocation and Exhaustion

67. Orders/Background. Our existing rules require the LECs to offer space for physical collocation on a first-come, first-served basis, and to provide virtual collocation in central offices in which space for physical collocation is unavailable or becomes exhausted. We did not require LECs to expand their facilities or relinquish space reserved for their future use in order to offer physical collocation, but we did state that we expected the LECs to consider interconnector demand for central office space when remodeling or constructing new central offices.

68. Positions of the Parties on Reconsideration. USTA suggests that the Commission permit LECs to initiate lotteries, or combinations of "first-come, first-served" and lottery mechanisms, in appropriate circumstances, rather than requiring use of a "first-come, first-served"

mechanism. MCI opposes USTA's idea, citing the Commission's experience with the abuse of lotteries in the mobile service context by speculators. Rochester argues, and MFS agrees, that waivers should be available for certain situations in which space is so limited that neither physical nor virtual collocation is feasible, particularly if the LEC makes alternative arrangements available.

69. MFS and ALTS argue that to justify an exemption from the physical collocation requirement due to exhaustion of space in particular central offices, LECs should be required to make a specific showing, including affidavits detailing the planned uses of space within the 24 months following the petition filing date. The LECs respond that such micro-management of LEC central office usage would amount to an unnecessary intrusion into LEC long-range planning, could interfere with other Commission and state regulatory policies, might require them to reveal confidential and proprietary information about LEC business plans such as growth projections and equipment upgrades, and essentially elevates the CAPs' interest in LEC central office space over the LECs' interest in their own property to serve their customers' future needs.

70. Discussion. The exemption from the physical collocation requirement due to space limitations will generally not be relevant under our new mandatory virtual collocation rules. LECs that are providing physical collocation on a voluntary basis and have been exempted from the virtual collocation requirements may exhaust the space available for interconnection in a central office. In that case, just as under the original rules, upon Commission approval of a showing that space is unavailable, the LEC will be required to provide generally available, tariffed virtual collocation to subsequent interconnectors. For the same reasons set forth in our earlier orders, we conclude that under our new policy, if physical collocation is the only generally tariffed expanded interconnection offering, permitting LECs to turn away interconnectors when space for physical collocation is exhausted could prevent interested parties from interconnecting in offices where space is limited. In most cases, requiring LECs to provide a virtual collocation alternative when space has been exhausted in such offices will ensure that all potential interconnectors can be accommodated, without imposing unreasonable burdens on the LECs.

71. We conclude that the same standards and procedures will apply to such requests based on space limitations that apply to such requests under our existing rules. We decline to adopt the extensive requirements proposed by the CAPs regarding the processing of requests to govern space limitations. The CAPs filed these proposals before the Common Carrier Bureau processed the LECs' petitions for exemptions due to space limitation. In the proceedings initiated by those petitions, the LECs provided detailed information regarding central office space availability, in many cases including floor plans and statements regarding future plans. We believe that in general, the existing procedures worked well and CAPs' concerns regarding possible manipulation were unfounded. If additional information in a particular case is needed to analyze fully a LEC request for exemption due to space limitations, the Common Carrier Bureau can require the LEC to submit such information when the need arises.

72. We conclude that, for LECs that choose to offer physical collocation pursuant to the terms of this order, a first-come, first-served process appears to be the most equitable manner to allocate space. In general, we do not believe that a sufficient number of prospective inter-connectors are likely to request interconnection in central offices with limited space at any one time to make lotteries a reasonable way to allocate space, and we are concerned that LECs could use a lottery process to delay fulfilling an early request for interconnection until a sufficient number of other requests were received to permit a lottery. LECs that qualify for exemptions to provide physical collocation in lieu of virtual collocation need not expand their facilities or relinquish space reasonably reserved for their future use, for the same reasons stated in the Special Access Expanded Interconnection Order. We also reaffirm our conclusion that LEC tariffs may reasonably include provisions prohibiting interconnectors from warehousing central office space.

2. Tariffing Requirements for Physical Collocation

73. In earlier orders in this proceeding, we held that the cross-connect element should be tariffed at a study-area-wide averaged rate under both virtual collocation and physical collocation. We concluded that cost differences among central offices may justify different charges for central

office space, power, environmental conditioning, and labor and materials charges for installing physical collocation arrangements, but charges should be uniform for all interconnectors in each individual central office. We now conclude, for the reasons given in our prior orders, that the same tariffing requirements should apply to physical collocation provided pursuant to exemption from the virtual collocation requirement.

C. Standards that Apply to Both Virtual Collocation and Physical Collocation

1. State Expanded Interconnection Policies

74. In our earlier orders, we allowed the LECs to apply for exemptions from the mandatory physical collocation requirement, and to provide virtual collocation instead, if the states in which they operated had adopted policies requiring LECs to offer intrastate expanded interconnection. The state policy exemption from the physical collocation requirement does not apply under our mandatory virtual collocation policy. Of course, LECs operating in a state with an expanded interconnection policy that favors physical collocation may obtain an exemption from the interstate virtual collocation tariffing requirement by offering physical collocation subject to the terms set forth in this order.

75. We reaffirm our conclusion in the Special Access Expanded Interconnection Order that if a LEC offers both interstate and intrastate expanded interconnection, it should do so in a manner that satisfies both federal and state requirements to the extent possible, and should provide mechanisms to avoid double payment for facilities used for both interstate and intrastate collocation. As we stated in the Special Access Expanded Interconnection Order, we believe that this requirement should reduce the potential for federal/state conflict and should prevent manipulation of different approaches to expanded interconnection to disadvantage unfairly interconnectors (i.e., requiring interconnectors to pay for different facilities for federal and state interconnection due to slightly differing requirements, when the same facilities could serve both purposes and satisfy both sets of requirements).

2. Reporting Requirements

76. Orders/Background. We have required the BOCs and GTE to

report biennially
on the customers using special access expanded interconnection and the
locations at which they are
interconnected. We have also required the BOCs and GTE to report
annually on the customers
using switched transport expanded interconnection and the locations at
which they are inter-
connected.

77. Positions of the Parties on Reconsideration. USTA takes
issue with the reporting
requirements applicable solely to the BOCs and GTE. USTA claims that
these LECs have no unique
ability to gather or provide the data and should not be treated
differently from other competitors.
Instead, USTA contends that the Commission should require all special
access competitors to
provide information regarding the growth of access competition. GTE
argues that interconnectors,
rather than LECs, should be required to report on collocation as well as
quantities of circuits, number
and location of network nodes, and numbers of customers, to give the
Commission data necessary
to conduct a reasoned analysis of the extent of competition.

78. ALTS and MCI respond that the existing requirement will
assist in identifying
possible discrimination, involves a minimal burden, and is appropriately
imposed only on the LECs
because it relates to the interconnection services they provide. In
addition, MCI argues that the
BOCs should be required to file quarterly reports identifying the
parties using expanded inter-
connection and the offices in which they are interconnected, in order to
enforce the new restrictions
it recommends imposing on interconnection by AT&T. Sprint contends that
the information that
the LECs propose requiring -- the location of interconnection
customers' network nodes and the
number of their users -- is irrelevant to monitoring the development of
local competition. NARUC
submits that the Commission should collect data on collocation expenses,
revenues, and deployment
activity to facilitate Joint Board decisionmaking.

79. Discussion. We now conclude that a broader information
collection program is
necessary to monitor the development of access competition. The extent
to which access
competition develops is a significant gauge of the success of our
expanded interconnection policy.
In addition, the extent to which competition actually develops is an
important factor in considering
LEC requests for additional pricing flexibility in the future. The

existing reporting requirements were designed to monitor the limited question of which customers are using expanded inter-connection and at what locations they are interconnected. We conclude that a broader monitoring program is needed to gather empirical data that will better enable us to monitor the development of competition in interstate access markets. We delegate authority to the Chief, Common Carrier Bureau, to formulate the detailed elements of this reporting program, decide which carriers must provide information, and specify the format and timing of these reports.

3. Dispute Resolution

80. Orders/Background/Positions of the Parties on Reconsideration. We concluded in our initial order in this proceeding that existing dispute resolution procedures -- our standard tariff and complaint processes, as well as our new alternative dispute resolution mechanisms -- are adequate to resolve disagreements regarding the implementation of expanded interconnection. MFS argues that the Commission should delegate authority to specific staff members to facilitate expeditious, informal, and binding resolution of implementation disputes. The LECs respond that MFS's request unjustifiably presupposes bad faith on behalf of the LECs, would unnecessarily tax the Commission's scarce resources, and could discourage negotiated resolution and encourage parties to resort to the FCC to settle disputes.

81. Discussion. We recognize that the implementation of mandatory virtual collocation carries with it the potential for more disputes than arose under the physical collocation regime. In particular, disagreements could arise regarding the installation, maintenance, and repair of the virtually collocated central office electronic equipment that terminates interconnectors' circuits. We encourage LECs and interconnectors to work together to resolve these disputes amicably. In cases that the parties are unable to resolve, however, special dispute resolution mechanisms could expedite the resolution of these disagreements and could help ensure that our new expanded interconnection regime works smoothly. We delegate to the Chief, Common Carrier Bureau, authority to develop special dispute resolution mechanisms, possibly including the designation of a Commission representative to work personally with the parties to mediate disputes and ensure that they are settled expeditiously, fairly, and

consistently.

4. Interconnection to LEC Facilities

a. Microwave

82. Orders/Background. The Special Access Expanded Interconnection Order required LECs to permit interconnection with microwave transmission facilities where reasonably feasible. The Common Carrier Bureau granted LECs a waiver of this tariffing requirement to permit microwave expanded interconnection to be tariffed on an individual case basis (ICB) in response to bona fide requests. The Commission adopted the same approach for microwave switched transport interconnection in the Switched Transport Expanded Interconnection Order, pending resolution of the issue on reconsideration of the Special Access Expanded Interconnection Order.

83. Positions of the Parties on Reconsideration. USTA and GTE seek clarification that microwave collocation "where reasonably feasible" must be tariffed only through an office-specific bona fide request process, and only in central offices in which there are no safety or engineering risks and the costs are not unreasonable. API responds that interconnection by microwave transmission facilities will be the principal cost-effective means for sophisticated end users to obtain expanded interconnection, particularly in low-density rural areas, and argues that the LECs should be directed to make every reasonable effort to accommodate requests for microwave interconnection arrangements.

84. Discussion. We agree with the Bureau's conclusion that microwave interconnection must be so tailored to specific interconnectors and to particular central offices that it does not readily lend itself to uniform tariff arrangements. We therefore modify our requirements to specify that the LECs must tariff microwave interconnection on a central office-specific, individual case basis, in response to bona fide requests. Such tariffed arrangements must be made available to other similarly situated parties at the same central office on non-discriminatory terms, and must be offered under general tariff at a given central office if the LECs gain sufficient experience to do so and if such arrangements can reasonably be standardized. Microwave interconnection should be offered through virtual collocation (using microwave transmission

equipment that is owned by the LEC and dedicated to the interconnector's exclusive use) or, if the LEC wishes to qualify for an exemption, through physical collocation. We expect the LECs to make reasonable efforts to accommodate requests for microwave interconnection arrangements. Of course, the LECs may charge rates that reasonably recover the costs of offering such arrangements.

b. Copper or Coaxial Cable

85. Orders/Background. Because the interconnection of copper or coaxial cable could rapidly exhaust available conduit and riser space, we held in our earlier orders that interconnection of such cable facilities is permitted in specific cases only upon the approval of the Common Carrier Bureau.

86. Positions of the Parties on Reconsideration. Penn Access argues that interconnectors should be able to use coaxial cable facilities for interconnection. It asserts that contrary to the Commission's conclusion, interconnection with coaxial cable can use space more efficiently and require less maintenance than fiber because it eliminates the need for interconnector optical terminals and electronic equipment on LEC premises. Penn Access adds that small- to medium-sized CAPs in particular can avoid unnecessary costs by using coaxial cable when they have lower capacity needs. Penn Access suggests that rather than placing a burden on coaxial interconnectors to make a showing to the Bureau, the LECs, which have more information and monopoly power, should have the burden of showing that a specific coaxial interconnection would significantly limit conduit or riser space.

87. The LECs respond that coaxial cable is not widely favored by communications providers, is becoming less prevalent throughout the industry, and would consume entrance space and user ducts far more rapidly than fiber due to differences in capacity and the larger physical diameter of coaxial cable. They contend that coaxial cable interconnection is costly and could crowd out fiber interconnection and force LECs to reconfigure central offices, potentially leaving LECs with an unusable investment when interconnectors change over to fiber. WilTel, concerned about interconnection by AT&T, recommends prohibiting interconnection with copper coaxial cable without Commission approval.

88. Discussion. We reaffirm our decision that interconnection of copper or coaxial cable facilities will be permitted in specific cases only upon approval by the Common Carrier Bureau. Copper and coaxial cables use conduit space much less efficiently than fiber. We remain concerned that if, under virtual collocation or physical collocation arrangements, interconnectors request that such cable be brought into LEC central offices, conduit or riser space might quickly be exhausted, which could impair the LECs' ability to serve their other customers or subsequent interconnectors. Most cable television companies (and other parties with substantial amounts of copper or coaxial cable in their networks) do not interconnect with the LECs at present and will have to install new facilities to establish collocated interconnection at LEC central offices. We believe it is in the public interest to encourage them to deploy fiber in making such interconnections in order to promote efficient use of available conduit and riser space and thereby facilitate access to central office interconnection by the greatest number of potential interconnectors. We also clarify that the restriction on interconnecting copper or coaxial cable refers to the interconnector's facilities, and does not restrict the type of LEC services to which interconnectors are entitled to connect.

c. DS0 and Other Special Access Services

89. Orders/Background. In the Special Access Expanded Interconnection Order, we required the LECs initially to tariff interconnection to DS1 and DS3 services generally. We required the LECs to file tariffs within 45 days of bona fide requests for interconnection to other special access services. Such tariff revisions are to be filed on 45 days notice.

90. Positions of the Parties on Reconsideration. Teleport submits that interconnection at the DS0 level should be generally tariffed like DS1 and DS3 interconnection. Teleport argues that this would enable interconnectors to provide their own multiplexing from high-capacity levels down to the DS0 level, rather than handing off DS1 circuits to the LECs and being dependent on (allegedly often overpriced) LEC multiplexing to obtain access to DS0 level circuits. Teleport contends that this would give CAPs more control over the speed of provisioning and service quality to their DS0 customers, and would facilitate greater competition for DS0

services. The LECs, on the other hand, contend that universal tariffing of DS0 interconnection is unnecessary, would impose inefficiencies on LECs by requiring them to bypass their own multiplexers and route large quantities of cable through their buildings to terminate at interconnectors' multiplexers, and might require LECs to equip central offices with facilities for which there is no present demand.

91. GTE seeks clarification that cross-connect elements for DS1, DS3, and other services should be tariffed only if the LEC's corresponding special access service is available in a specific office. MFS agrees, but states that the LEC should be required to permit interconnectors to cross-connect to any special access service offered out of a specific office. ALTS, however, contends that this LEC argument amounts to an effort to limit artificially CAP innovation.

92. GTE argues that the 45 day deadline for filing tariffs for the interconnection of services other than DS1 and DS3 is too short given the detailed engineering and costing activities necessary, and contends that it is unlikely that any interconnector could design and build transmission facilities to a central office in 45 days or less so that a reasonable extension would not delay interconnection in practice. MFS argues that these tariffs are unlikely to be particularly complex and that 45 days should be more than sufficient.

93. Discussion. We believe that interconnection to the broadest array of special access services is in the public interest because it facilitates competition for all these services. The initial tariffing requirement was limited to DS1 and DS3 services only to promote rapid implementation, because these are the services that we believed interconnectors desired most and for which competition would be most likely to develop in the short term. We conclude that, under our new rules, the LECs must provide interconnection to DS0 and all other special access services within 45 days of receiving a bona fide request for such a service. We conclude that more time is unnecessary and could impede competition, thereby unnecessarily delaying service to customers. Our expanded interconnection policies do not require a LEC to connect interconnectors' facilities with any given LEC service (e.g., DS3 service) at a particular central office if the LEC does not offer that service at that central office.

5. Other Standards Issues

94. Equipment in LEC Central Offices. In our earlier orders, we required LECs to permit interconnectors to place, or designate for placement, in LEC central offices only equipment needed to terminate basic transmission facilities, including optical line terminating equipment and multiplexers. We concluded that the placement or dedication of other types of equipment, such as enhanced service equipment, in LEC central offices was unnecessary to foster competition in the provision of special access and switched transport services, and consequently we did not require the LECs to permit the collocation of such equipment in their central offices. We conclude that the same principles should apply under the mandatory virtual collocation and physical collocation exemption policies we adopt in this order, for the reasons stated in our previous orders. Only central office equipment needed to terminate basic transmission facilities must be collocated pursuant to this order.

95. Points of Entry. In our earlier orders, we required the LECs to offer interconnectors at least two separate points of entry to each central office if they have at least two entry points for their own cable. USTA and GTE contend that the requirement should apply only when there is space available for new facilities at each of two points entering the central office, and that LECs should not be required to construct new entry points or reroute their own facilities to accommodate interconnectors. MFS responds that LECs should be required to rearrange facilities or take other reasonable steps (short of installing new cable entrances) to provide diverse cable entrances upon an interconnector's request. Under our new regime, we reaffirm the general requirement, but make the modification requested by USTA and GTE. We conclude that this revision reasonably advances our policy objective of ensuring that in most cases interconnectors desiring reliability can obtain diverse entry points, while avoiding undue burdens on the LECs.

96. Network Reliability Council. GTE submits that the Commission should not let expanded interconnection proceed until the Network Reliability Council has developed standards and operational safeguards to ensure that network reliability is not compromised. We decline to

adopt GTE's suggestion under our new regime. The Network Reliability Council has not been delegated responsibility for developing specific technical guidelines. We reaffirm our conclusion that LECs are permitted to proscribe use of interconnector equipment or operating practices that would constitute a significant and demonstrable technical threat to LEC networks.

97. Insurance. MFS suggests that a LEC tariff requirement that an interconnector obtain \$1 million in comprehensive general liability insurance should be presumed reasonable, and any more burdensome insurance requirement should be allowed only if the LEC provides specific factual justification for it. The LECs respond that such a rule would be unprecedented, unnecessary, and overly intrusive into LEC property management. NYNEX points out that liability insurance requirements will reasonably differ in different parts of the country and in different types of central office buildings, and contends that a \$1 million policy would almost always prove inadequate because a central office fire or other casualty caused by an interconnector's negligence could easily result in far more than \$1 million in damage. We reaffirm our conclusion that resolution of insurance issues is best addressed when we examine the reasonableness of specific LEC physical collocation tariff provisions. We add, however, that unless a LEC makes a compelling case to the contrary, in general no liability insurance requirements should be imposed in connection with virtual collocation offerings.

98. Customer Proprietary Network Information (CPNI). MFS argues that the Commission should impose CPNI protection rules on expanded interconnection arrangements to prevent LECs from using their control of bottleneck facilities to obtain unfair competitive advantages. The LECs respond that CPNI rules are unnecessary because any competitor can easily identify potential access service customers, and contends that such rules would split LEC staffs into subgroups that are likely to be less efficient and perform redundant work, and could not be implemented at all due to the limited staff in many smaller business offices. We are persuaded by the LECs' arguments on this point, and conclude that no special CPNI protection rules are necessary in the context of our new expanded interconnection regime.

99. Billing. In the Switched Transport Expanded

Interconnection Order, we decided that the LECs should bill the interconnection charge to the customer of record, whether that party is a CAP or an IXC, even in cases where a CAP aggregates the traffic of several IXCs and the CAP is the customer of record. Rochester seeks clarification that it may bill the transport interconnection charge and other switched access elements to the entity whose traffic it can measure, in circumstances where it cannot bill the customer of record. Rochester states that this may occur when a CAP aggregates the traffic of several IXCs, the CAP is the customer of record, and the carrier identification codes are associated with the IXCs. MFS supports Rochester's petition, stating that the procedure Rochester proposes is technically unavoidable and permits the charges to be billed to the actual underlying user of switched access services. Sprint opposes Rochester's proposed clarification, arguing that the customer of record should be billed, but states that it would not object to a waiver for Rochester limited to the circumstances described in its petition. We will not issue Rochester's proposed clarification, because Rochester has presented no evidence persuading us that our decision in the Switched Transport Expanded Interconnection Order was incorrect or unworkable, and we reaffirm that decision. We concluded that billing the customer of record would enable the LECs to measure interstate minutes of use accurately and bill the charge to the appropriate party. The LEC, of course, must be able to bill for the services it provides to its customers, and we will consider granting waivers in circumstances meeting the normal waiver standard.

100. Percentage of Interstate Use (PIU) Reporting. In the Switched Transport Expanded Interconnection Order, we concluded that in cases in which IXCs are able to report end users' PIU data, LECs may, in their tariffs, require them to do so. Sprint submits that end users that are expanded interconnection customers of record -- not the IXCs serving those users -- should report their own PIU data to LECs. Sprint argues that requiring IXCs to report PIU data to LECs when the customer of record is an end user places an unwarranted and impractical burden on IXCs, because end users often split their traffic among several IXCs, and IXCs may not be able to segregate any particular user's traffic for the purposes of PIU measurement. No party opposes Sprint's request. We reaffirm our decision in our earlier orders. If IXCs cannot accurately report end users'

PIU data, it would be reasonable for LECs to require the end user customer of record to report its PIU to the LEC. LECs may use the same PIU verification procedures for end user access customers that they now use for IXC customers.

101. Collocation of Data-Over-Voice (DOV) Equipment. The Special Access Expanded Interconnection Order and the Switched Transport Expanded Interconnection Order required LECs to permit interconnectors laying their own circuit facilities to a LEC central office to collocate any type of basic transmission equipment, including data-over-voice (DOV) equipment, but not switches or enhanced service equipment. USTA and GTE argue that LECs should not be required to allow collocation of DOV equipment, because they assert that DOV equipment is not used to provide a basic transmission service in conjunction with interstate special access service (i.e., as a substitute for LEC channel terminations). Instead, USTA and GTE contend that DOV equipment is generally used in conjunction with switched service between copper-based local loops and split voice and data ports in the LECs' local switches, and constitutes "equipment to be inter-connected with LEC-provided transmission facilities" and not included in the scope of expanded interconnection. IDCMA and ITAA respond that DOV is basic transmission equipment and note that several LECs offer tariffed services using such equipment. They assert that interconnectors could use DOV equipment in connection with special access services without connecting to the loop side of LEC switches and argue that GTE's and USTA's proposed restriction would be anticompetitive. We reaffirm our conclusion that because DOV equipment is basic transmission equipment, expanded interconnection customers have a right to virtual collocation of DOV equipment in LEC central offices (or physical collocation for LECs that qualify for exemptions from the virtual collocation requirement). We clarify, however, that we have not required the LECs to unbundle their loop-side switched access common line services.

V. AVAILABILITY OF EXPANDED INTERCONNECTION

A. Parties that Offer Expanded Interconnection: Reciprocity

102. Orders/Background. In our prior orders in this proceeding, we required all Tier 1 LECs, except NECA pool members, to provide expanded

interconnection, but did not impose reciprocal obligations on interconnectors.

103. Positions of the Parties on Reconsideration. GTE and USTA contend that the Commission should require at least those common carriers that seek expanded interconnection to offer expanded interconnection themselves on equivalent terms, as MFS had originally proposed. GTE and USTA submit that reciprocity would help facilitate a level playing field between competing carriers, particularly given the policymakers' goal of a "network of networks" in which LECs may wish to obtain fiber from CAPs or others, and given the evolution of special arrangements between CAPs, cable television operators, IXCs, and others.

104. MCI, Sprint, and AT&T oppose requiring reciprocal interconnection obligations, because the LECs, which possess bottleneck facilities, do not need access to interconnector facilities to provide their services. MFS states that it is amenable to providing collocation or equivalent interconnection to LECs upon request, as long as other common carriers using expanded interconnection (but not end-users) are subject to similar obligations, but adds that because it controls no bottleneck facilities, there is no need for the Commission to require reciprocal interconnection rights.

105. Discussion. Section 201(a) of the Act already requires CAPs and other common carriers to provide interconnections with other common carriers upon request. We conclude that this general requirement is sufficient with respect to parties other than LECs, and that our detailed mandatory virtual collocation rules should apply only to the Tier 1 LECs other than NECA pool members. First, mandated expanded interconnection for parties other than LECs is beyond the scope of this proceeding, because we did not propose in either of the notices in this proceeding to impose interconnection obligations on parties other than the LECs. Second, mandated expanded interconnection requirements are necessary because the LECs are dominant carriers and control facilities to which other parties need access in order to provide service. In the absence of any other identified public interest benefits in mandating reciprocity, we find no reason to impose expanded interconnection requirements on parties that lack market power and do not control bottleneck facilities. MFS has indicated that it is willing to provide interconnection to its

facilities voluntarily, and we believe that market forces are likely to induce other non-dominant interconnectors to do so to meet demand as well.

B. Parties that May Use Expanded Interconnection

106. Orders/Background. Currently, all parties, including CAPs, IXCs, and end users, can make use of expanded interconnection. We concluded in our earlier orders that AT&T and any other parties already located in the same building as a LEC central office could use expanded interconnection to interconnect with LEC facilities in the same manner, and at the same charges, as other parties.

1. Restrictions on AT&T

107. Positions of the Parties on Reconsideration. MCI contends that AT&T can derive unique, unfair advantages from expanded interconnection using its collocated points of presence (POPs) that result from its historical relationship with the BOCs. MCI provides examples of ways it alleges AT&T could use interconnection arrangements to cut its access costs by over 90% in many cases. MCI recommends that AT&T be required to continue paying channel termination charges in central offices where it currently has POPs until another party is taking expanded interconnection service in that office, although MCI does not object to AT&T obtaining expanded interconnection immediately in offices in which it did not have pre-existing collocated POPs. WilTel and CompTel argue that AT&T possesses monopsony power, and could use that power to gain windfall benefits from interconnection. They contend that AT&T may be the only IXC that can benefit from interconnection. They thus assert that AT&T should not become eligible for collocation pricing unless it installs an optical interface, and recommend prohibiting interconnection with copper coaxial cable without Commission approval. WilTel submits a quantitative analysis purporting to show that, given the LECs' rates for physical collocation, an IXC or CAP located 1/2 mile from a central office could justify interconnecting only if it has enough traffic to fill at least 24 DS3s, while only 12 DS3s of traffic would be needed to justify physical collocation for an IXC whose POP is at the central office.

108. AT&T responds that these arguments amount to attempts by

its competitors to obtain advantages through the regulatory process, and asserts that by requiring AT&T to pay the same charges and use the same interconnection architecture as other interconnectors, the orders already eliminate any possible advantages it may have. GTE asserts that LEC pricing should not depend on the identity of an interconnecting party, and that such distinctions may not be consistent with Section 202 of the Communications Act.

109. Discussion. In the context of our mandatory virtual collocation policy, we reaffirm our conclusion that AT&T may use expanded interconnection, and that if it does so, it must deploy the same facilities and pay the same charges as any other interconnector. Restricting AT&T's ability to use expanded interconnection would impede the ability of the largest potential access competitor to the LECs to enter the market, which would not be in the public interest. Moreover, imposing such a restriction on AT&T would not promote cost-based interexchange competition. To the extent AT&T has any advantage over other IXCs because it has a larger number of POPs in closer proximity to LEC central offices, this advantage is offset by the added capital costs that AT&T incurred to deploy these facilities and the additional operating expenses that they cause. Finally, such a restriction could remove an important market check on above-cost pricing by the Tier 1 LECs in rural areas, where AT&T may be the only party that could compete with LEC access services in the foreseeable future.

110. We are unconvinced by the non-dominant IXCs' arguments. In particular, WilTel has offered insufficient information to assess the validity of the assumptions underlying its quantitative analysis. Moreover, WilTel's analysis does not appear to take into account the internal network costs of the party located at the LEC central office (such as the costs of constructing and maintaining additional transmission facilities to reach the central office), as opposed to those of parties located 1/2 mile from the LEC central office, which should offset at least some of that party's benefits. Contrary to MCI's suggestions, AT&T cannot simply pay cross-connect charges instead of channel termination charges; if AT&T uses expanded interconnection, it must pay for and use the same collocation arrangements that other interconnectors use. In any case, for the policy reasons given above, we reaffirm our existing rules relating to AT&T's use of

expanded interconnection.

2. Restrictions on End Users

111. USTA submits that there is no need to make collocation available to non-common carriers to avoid unreasonable discrimination, because Section 201(a) explicitly distinguishes carriers from others for interconnection purposes, and the Commission need not prejudice LECs' methods for responding to discrimination concerns. We are unconvinced by USTA's argument, and reaffirm our decision that all parties, including non-common carriers, may use expanded interconnection offerings -- an approach that is consistent with our policy of not distinguishing between carriers and users in the application of access charges.

VI. EXPANDED INTERCONNECTION RATE STRUCTURE AND PRICING

A. Connection Charge Rate Structure

112. Orders/Background. Connection charges are the rates that LECs assess interconnectors for the provision of expanded interconnection services. In our earlier Expanded Interconnection decisions, we did not impose detailed rate structure requirements for connection charges, but did require that the connection charge rate structures that the LECs use reflect cost-causation principles, and be unbundled to ensure that interconnectors are not forced to pay for services that they do not need.

113. Positions of the Parties on Reconsideration. In comments filed before the adoption of the Second Reconsideration Order, which mandated unbundling of expanded interconnection rate structures, WilTel asserted that to prevent discrimination with respect to individually negotiated virtual collocation offerings, LECs should be required to unbundle all rate elements for such offerings to the maximum extent possible and should be permitted to offer volume discounts only when justified by technology. WilTel also submits that maximum unbundling could enable the Commission to ensure that virtual collocation offerings are priced consistently with physical collocation, and argues for pricing virtual collocation using physical collocation rates as a starting point, and then deducting the cost savings resulting from using a virtual arrangement. Ameritech contends that virtual and physical collocation will be different services, and terms and conditions

will justifiably differ.

114. Discussion. In light of our decision to impose a mandatory virtual collocation requirement, and based on the record on reconsideration, we reaffirm and expand our requirements regarding the rate structure of connection charges. We conclude that we should not at this time impose a detailed rate structure for connection charges under our mandatory virtual collocation regime. For the reasons set forth in our earlier orders, we conclude that such a structure could be overly inflexible. We have found in our experience in the ongoing investigation of the LECs' expanded interconnection tariffs, however, that the use of disparate rate structures can complicate the ability of interested parties and our staff to evaluate the reasonableness of LEC rate structures and levels. Thus, we conclude that additional guidance could facilitate the tariff review process, and we set forth additional requirements to guide the LECs' choice of expanded interconnection rate structures.

115. First, we reaffirm for our new regime the rate structure principles adopted in the Second Reconsideration Order and the Switched Transport Expanded Interconnection Order, for the reasons stated in those orders. Thus, we require the LECs to establish reasonable, disaggregated subelements for connection charges pursuant to rate structures that (1) reflect cost-causation principles, (2) are unbundled to ensure that interconnectors are not forced to pay for services that they do not need, and (3) establish a cross-connect element that applies uniformly to both physical and virtual collocation.

116. In addition, the LECs' rate structures must be clear and easy to understand. Regardless of a LEC's individual choice of rate structure, the facilities and services provided under each rate element should be clear on the face of the tariff, and the tariff support information should identify the specific costs that are recovered by each rate element. In addition, each rate element should logically relate to the service function provided under that rate element. For example, one of the basic functions of virtual collocation service is the provision of a cable running from the point of interconnection of the LEC's and interconnector's networks to the termination equipment in the LEC's central office. An entrance cable rate element, therefore, would logically recover the costs

of cable running between these two locations.

117. Finally, we will require the LECs to provide cost support data for their September 1, 1994 virtual collocation tariff filings pursuant to a uniform Tariff Review Plan (TRP) format established by the Common Carrier Bureau. The TRP will disaggregate expanded interconnection service into broad categories, or "functions." For example, one TRP function might be the entrance cable function described above. Provision of basic cost data by TRP function permits Commission staff and the interested public to compare the LECs' various rate structures and levels more effectively. We delegate authority to the Chief, Common Carrier Bureau, to promulgate detailed requirements regarding the TRP format in a separate order.

B. Connection Charge Pricing

118. Orders/Background. In the earlier Expanded Interconnection orders, we concluded that LECs should recover the costs of providing expanded interconnection services through new connection charge elements. We required the LECs to set the initial rates for connection charges for expanded interconnection based on direct costs plus a reasonable share of overhead loadings. We required the LECs to derive direct costs using a consistent methodology, and to justify any deviation from uniform overhead loadings that they propose for connection charges. The same cost justification standards apply to both initial rate levels and subsequent rate changes for connection charges.

119. Positions of the Parties on Reconsideration. ALTS requests clarification of the pricing standard to be used to justify connection charge elements, arguing that there are disparities between the application of overhead loadings to connection charges and to rates for services subject to competition, and that such differences are anti-competitive and should be eliminated. ALTS argues that the current pricing standard enables the LECs to charge exorbitant rates for expanded interconnection and engage in a classic cost/price squeeze that stifles competition. The LECs respond that they must be able to recover real overhead costs in their rates.

120. Positions of the Parties in Recent Filings. The CAPS complain that the LECs have imposed excessive charges for equipment under their current virtual

collocation tariffs. The CAPs propose that the LECs should be required to purchase equipment from interconnectors at \$1 or other nominal amount, giving interconnectors the right of first refusal to buy back the equipment at any time for the same price. Under this approach, the CAPs assert that the LECs would have no capital investment in equipment, and therefore would be prohibited from marking up their costs to reflect depreciation, the cost of money, or ad valorem taxes.

121. Discussion. We continue to believe that the LECs must cost-justify the rate levels for connection charges, and that these rate levels must receive careful scrutiny by Commission staff. The same scrutiny will be required for both initial rate levels and subsequent rate changes in connection charges assessed both by price cap LECs and by rate-of-return LECs. We also reaffirm that expanded interconnection services covered by connection charges will be excluded from the LECs' price cap baskets indefinitely and are subject to non-streamlined tariff review. We are making some changes to our pricing rules, however, in light of our adoption of a mandatory virtual collocation regime and our experience in reviewing the expanded interconnection tariffs filed under the existing rules. The LECs' cost-justified rates will be derived from the direct costs of providing expanded interconnection service plus a reasonable amount of overhead costs. We address these two types of costs in turn.

122. Direct Costs. We reaffirm that price cap LECs must derive the direct costs of expanded interconnection offerings as provided under the price cap new services test. Rate of return LECs that provide expanded interconnection should provide the cost information required for new services under the applicable sections of our rules. Thus, under our new mandatory virtual collocation policy, the LECs must justify the direct costs related to all services covered by connection charges (including those related to physical collocation provided pursuant to an exemption), for both the initial level of these charges and subsequent changes. Specifically, we require the price cap LECs to derive the direct cost of providing similar types of new offerings, including expanded interconnection services covered by the connection charge rate elements, based on consistent methodologies, unless they can justify different methodologies. This requirement reflects our policy for the pricing of new services adopted in the LEC

Price Cap proceeding. As noted in our earlier expanded interconnection orders, however, certain aspects of the new services test, such as risk premiums, are not applicable to expanded interconnection services.

123. The LECs' rates for virtual collocation services involving the central office equipment dedicated to the use of interconnectors are likely to be the most expensive rate elements in virtual collocation offerings. The purchase price of the equipment used to provide these services will, of course, be an important factor in computing the LECs' cost-based rates for these services, and we recognize that there will be different purchase prices for different types of equipment designated by interconnectors. We therefore require the LECs to include in their September 1 tariff filings a description of the methodology they use to compute their rates for services that require the use of optical line terminating multiplexers (OLTMs), and other equipment used to terminate, multiplex, and demultiplex circuits, based on the purchase prices of the equipment. This will ensure that the rates paid by all interconnectors are derived in the same manner, and will enable interconnectors that wish to offer to sell equipment to the LECs, or to designate equipment not previously tariffed, to predict their charges for the services that rely on the use of this equipment. The LECs' methodologies must be consistent with all the rate structure and pricing rules set forth in this order. In addition, the LECs must specify in their tariffs the actual charges for the equipment, calculated using the general methodology.

124. We are concerned about the reasonableness of the purchase prices of central office virtual collocation equipment, as the rates for services involving use of this equipment will be based on those purchase prices. For instance, LECs purchasing equipment that they do not ordinarily use in their networks may not be able to obtain the volume discounts available to interconnectors that regularly use such equipment in their networks. More importantly, in purchasing equipment, LECs do not have an incentive to obtain the lowest possible price, since their costs will be passed on to their competitors, the interconnectors. To counter this problem, we impose the following requirement on LEC pricing of OLTMs and other equipment with similar functions used in virtual collocation arrangements. LECs must base the direct costs of providing this equipment

on the lowest purchase price reasonably available to them to serve an interconnector. In applying this standard, we would find probative the price at which an interconnector may offer to sell the desired equipment to the LEC. Any costs incurred above the lowest reasonably available price are not prudently incurred, and thus should not be reflected in the LECs' rates. The LECs, however, are not required to purchase the equipment from interconnectors.

125. This pricing approach will help ensure that LEC rates for use of this virtual collocation equipment will be reasonable, and will limit the LECs' ability to pay inflated prices and pass them on in charges to interconnectors. In addition, this approach will have the desirable collateral effect of easing the transition from a mandatory physical collocation to a mandatory virtual collocation environment. Specifically, if a LEC were to stop providing physical collocation, causing its expanded interconnection customers to shift to virtual collocation arrangements, an interconnector that currently uses terminating equipment in its collocated cage may offer to sell that equipment to the LEC at a price lower than that otherwise available to the LEC.

126. LECs may reasonably charge different rates to different customers if they incur different costs to serve those customers. To be sure, even virtual collocation offerings designed to meet the needs of individual interconnectors must be made generally available to all similarly situated interconnectors, and the actual rate levels (as well as the general methodology) must be specified in the tariffs. In this context, however, an interconnector that relies on the LEC to purchase equipment from a third party at a price the LEC negotiates is not similarly situated to, and may not pay the same charges as, an interconnector that offers to sell the equipment to the LEC itself at a lower price. Because the costs prudently incurred by the LECs to serve the different interconnectors are different in such cases, the difference in the rates charged to different customers does not constitute unreasonable discrimination under Section 202 of the Communications Act. The LEC, however, must use the same basic methodology specified in its tariff to compute all customers' rates.

127. We do not intend to limit the LECs' ability to use financial arrangements other than purchasing equipment outright from third parties. For instance, in their current virtual collocation tariffs, some LECs allow the interconnector to purchase

equipment and lease it to the LEC. LECs may, if they wish, offer to purchase virtual collocation equipment from interconnectors for a nominal amount (e.g., \$1) and make it available for resale to the interconnectors for the same amount. We decline, however, to adopt the CAPs' recommendation that we require the LECs to offer such an arrangement. Under our definition of virtual collocation, the LECs own and control the central office equipment. A \$1 sale and repurchase right would effectively make the interconnector the owner of the equipment in all but formal title, and would perhaps run afoul of the D.C. Circuit's analysis in *Bell Atlantic v. FCC*.

128. Overhead Costs. LECs incur overhead costs in providing expanded interconnection services, and should be allowed to charge reasonable amounts to recover these costs in their rates for these services. We are concerned, however, that the LECs could attempt to load excessive overhead costs on their connection charges. On the current record, we reaffirm our decision in the earlier orders in this proceeding that the LECs may include no more than uniform overhead loadings in their rates for expanded interconnection services, or must justify any deviations from uniform loadings. In other words, LECs may not recover a greater share of overheads in rates for expanded interconnection services than they recover in rates for comparable services, absent justification. The LECs have the burden of demonstrating that their connection charges meet this overhead loading standard, and are otherwise just, reasonable, and not unreasonably discriminatory. The price cap LECs may be required to submit additional information to enable us to verify that the overhead loadings on the expanded interconnection connection charges do not unreasonably differ from the overhead loadings on other services, for which price cap LECs generally do not provide cost justification. We will carefully scrutinize the overhead costs that the LECs propose to recover through connection charges to ensure that they are reasonable.

129. Other Pricing Issues. We decline to require the LECs to set connection charges to ensure that interconnectors using virtual and physical collocation arrangements pay the same total prices, or to require that virtual collocation be priced using physical collocation rates as a starting point and deducting the cost savings from using a virtual arrangement, as requested by WilTel. Virtual collocation and physical collocation are different services, and

each should be priced based on the cost of providing it. We reaffirm our decision to require the LECs to provide cost justification for any connection charges that would vary on a per circuit basis because of the number or type of interconnected circuits ordered. We also reaffirm our conclusion that the LECs may not charge different rates for special access and switched interconnection rate elements, or for interconnection rate elements in different types of central offices (i.e., end offices, serving wire centers, tandem offices, etc.), unless costs differ. Interconnectors' wage rates are irrelevant to a determination of the cost of the service provided by the LECs.

C. Contribution Charge

130. Orders/Background. A "contribution charge" is a rate element that recovers subsidies or support flows embedded in LEC rates for services comparable to those provided by interconnectors. Certain states permit a contribution charge in connection with expanded interconnection, and we concluded in the Special Access Expanded Interconnection Order that in theory a contribution charge would be reasonable if targeted to recover specifically identified regulatory support mechanisms or non-cost-based allocations embedded in LEC rates subject to competition. We did not, however, permit the LECs to assess an interstate special access contribution charge in the Special Access Expanded Interconnection Order. Instead, we took steps to eliminate the only support flow that appeared on the existing record to warrant a contribution charge. We did, however, adopt a rule (47 C.F.R. 69.122) permitting the LECs to seek the Commission's approval for a contribution charge applicable to special access expanded interconnection, as well as to their own special access services, if they could demonstrate the existence of any such support flows. In the Switched Transport Expanded Interconnection Order, we concluded that the transport interconnection charge recovers revenues not recovered through other transport rate elements, and therefore that there is no need for a separate switched transport contribution charge.

131. Positions of the Parties on Reconsideration. MFS argues that individual LECs should not be allowed to seek permission to impose a contribution charge. Rather, it contends that contribution charges should be allowed only following a rulemaking proceeding, because any non-cost-based support flows that exist must

exist for all LECs under the uniform access rate structure. MFS asserts that any changes in the cost allocation and pricing rules should be consistent across the LEC industry. USTA responds that a LEC's own costs, not an industrywide proceeding, should define a cost-based contribution element.

132. Discussion. We reaffirm the principle, adopted in the Special Access Expanded Interconnection Order, that interconnectors, as well as LECs, should provide contributions to support any specifically identified regulatory subsidy mechanisms that are embedded in LEC rates for services subject to competition. This policy principle advances our universal service goals in a manner that is consistent with the development of access competition, by ensuring the continued recovery of any regulatory subsidies or support flows that clearly advance universal network access on an equitable basis.

133. Our rule on contribution charges for special access and expanded inter-connection, 47 C.F.R. 69.122, will advance this policy principle, under the new expanded interconnection regime adopted in this order. No contribution charge was permitted in the Special Access Expanded Interconnection Order because we proposed to eliminate the only regulatory support flow identified in the record affecting the LECs' interstate special access rates -- the over-allocation of General Support Facility costs. We eliminated that over-allocation shortly thereafter. Without evidence of other regulatory support flows within interstate special access rates, we decline to modify for our new regulatory regime the policy principle, the rule, or our procedures regarding contribution charges. We believe that MFS's challenge is premature. If any LEC proposes a contribution charge, we will consider such a proposal on its merits. As to switched transport, we find no reason to alter our conclusion that the transport interconnection charge obviates the need for any separate contribution charge.

D. Separations

134. Orders/Background. In earlier stages of this proceeding, some parties argued that expanded interconnection should be accompanied by separations changes because interstate competition could lead to revenue shifts to the intrastate jurisdiction. We adopted no separations changes in the Special Access Expanded Interconnection Order and the Switched Transport

Expanded Interconnection Order, because we found that any indirect cost reallocation that might result from the implementation of expanded interconnection would not be of sufficient magnitude to undermine universal service or threaten state regulatory programs. Both orders were, however, accompanied by notices of proposed rulemaking that referred to the Federal-State Joint Board in CC Docket No. 80-286 the limited issue of whether separations changes are needed to allocate properly the costs of, and revenues from, expanded interconnection between the state and federal jurisdictions.

135. Positions of the Parties on Reconsideration. NARUC submits that, pending Joint Board action, the LECs should be required to exclude from the separations process an amount of expense equivalent to the amount of revenues received for interstate expanded interconnection, to avoid cost-revenue mismatches. The D.C. PSC argues that the Commission should have directed the Joint Board to consider the full impact of expanded interconnection on separations, such as the reassignment of formerly interstate special access facilities to the state jurisdiction caused by diversion of LEC interstate traffic to competitors. According to the D.C. PSC, this trend could accelerate the reduction in telephone subscribership in the District of Columbia by increasing the costs that must be recovered from intrastate services. GTE responds that existing separations procedures should continue to be used, rather than the interim procedures proposed by the states, but argues that a comprehensive separations review is necessary.

136. Discussion. We reaffirm our earlier conclusions concerning the possible need for separations changes in response to the adoption of expanded interconnection requirements for special access and switched transport. The policies we adopt here create no reason to alter those conclusions. Thus, while we find no reason to delay implementation of the requirements set forth in this order, we leave in place our current referrals to the Joint Board concerning whether separations changes are needed to ensure a reasonable jurisdictional allocation of expanded interconnection costs and revenues.

137. Having reviewed the record on reconsideration, we decline to broaden the scope of our referral to the Joint Board. A comprehensive review of separations and cost recovery is not

necessary to resolve the limited issue of the jurisdictional allocation of the costs of and revenues from expanded interconnection. We also decline to modify our separations procedures, as proposed by NARUC. Because the initial magnitude of expanded interconnection costs and revenues is likely to be very small relative to LECs' total regulated costs and revenues, we conclude that any effect of the existing rules on the overall separations allocations should be minimal and should permit ample time for the Joint Board to make a recommendation to the Commission.

VII. LEC PRICING FLEXIBILITY

A. In General

138. Background/Orders. Before we adopted the expanded interconnection orders, the LECs were permitted to offer special access -- but not switched transport -- with term and volume discounts, and were required to offer all special and switched access services at geographically averaged rates in each study area. In the Special Access Expanded Interconnection Order, we permitted LECs with operational special access expanded interconnection arrangements in a study area to introduce density zone pricing for special access in that study area. We defined special access expanded interconnection as "operational" after at least one interconnector has taken a special access cross-connect element. Density zone pricing is a system that permits the LECs gradually to deaverage their special access rates by zones in a study area. In the Switched Transport Expanded Interconnection Order, we permitted LECs with operational switched transport expanded interconnection arrangements in a study area to implement density zone pricing for switched transport in that study area. We also allowed the LECs to offer volume and term discounts on switched transport services after interconnectors have subscribed to a certain number of switched expanded interconnection cross-connects.

139. The Teleport Petition. After the court issued its ruling in *Bell Atlantic v. FCC*, Teleport filed a petition for declaratory ruling requesting that the Commission eliminate the additional pricing flexibility granted to the LECs in the Special Access Expanded Interconnection Order unless those LECs voluntarily provide physical collocation for special and switched access expanded interconnection. Teleport argues that the Commission

determined that physical collocation is the best way to ensure that the LECs provide interconnection on the same terms as the interconnection they provide to themselves. Teleport further contends that the additional pricing flexibility granted to the LECs was premised on the mandate of physical collocation, and that without physical collocation, "the rationale behind the FCC's pricing flexibility standard falls away." According to Teleport, limiting the availability of pricing flexibility will present a strong incentive for LECs to provide physical collocation, and an "appropriate reward" to those who do. Finally, Teleport claims that if LECs continue to benefit from pricing flexibility without any incentive to provide physical collocation, the pace of developing competition will be slowed.

140. ALTS supports the Teleport petition, arguing that the policy and legal underpinnings of increased pricing flexibility were eliminated by the Court's decision in *Bell Atlantic v. FCC*. ALTS argues that the "significantly increased potential for competition made possible by expanded interconnection" will not be achieved without physical collocation. Whereas Teleport's petition directly addresses only density zone pricing for special access, ALTS urges that Teleport's request is equally applicable to the pricing flexibility that the Commission has granted for switched transport. ALTS notes, however, that it is not arguing that there are no circumstances under which virtual collocation could create a level playing field. Rather, ALTS argues that a level playing field is more difficult to achieve where the only interconnection available is virtual collocation, and where the Commission's rules have not been modified to adequately ensure that virtual collocation is comparable in all relevant respects to physical. Electric Lightwave, Inc. (ELI) also filed comments in support of the Teleport petition. ELI argues that virtual collocation is inferior to physical collocation, reduces the effectiveness of the Commission's expanded interconnection policies, and justifies a retraction of the previously granted pricing flexibility.

141. Bell Atlantic, GTE, Pacific, SW Bell, and Ameritech oppose the Teleport petition. Some of these LECs argue that Teleport's request is premature and procedurally improper because the mandate in *Bell Atlantic v. FCC* has not yet issued. The LECs assert that under the Commission's rules, density zone pricing is linked to any form of operational expanded

interconnection cross-connect, not necessarily a physical collocation cross-connect. They contend that Teleport's request would circumvent the effect of the Court's order by withholding the pricing flexibility that they assert they need to compete unless they allow third parties to occupy their property. Some LECs submit that more pricing flexibility is needed, not less, given the growth of competition and the rigid limits on LEC pricing under the existing density zone pricing and switched transport discount rules. Ameritech notes that CAPs' representatives have stated publicly that their ability to compete is not affected by the Bell Atlantic v. FCC decision. Finally, SW Bell asserts that at least some LECs will likely choose to offer some form of expanded interconnection that is satisfactory to the Commission even after the Court's mandate issues, and that the Commission should look to what the LECs are actually offering, as opposed to what they are legally required to offer, in making decisions concerning pricing flexibility. Sprint/United also opposes the petition. It renews its argument on reconsideration that density zone pricing should be permitted even if expanded interconnection is not operational, because it enables LECs to tailor prices more closely to costs, and thus creates correct economic signals that facilitate sound entry decisions by CAPs.

142. Positions of the Parties on Reconsideration. Even under a general mandate of physical collocation, the CAPs have generally advocated reversal of the grant of additional pricing flexibility to the LECs. Teleport argues that special access expanded interconnection increased competition for only a limited market segment (for connections to IXC POPs, not for low density connections to end user premises), and that special access volume and term discounts already give the LECs the practical benefits of deaveraged rates. MFS and ALTS maintain that the LECs have sufficient pricing flexibility for switched transport under the price cap rules, continue to control bottleneck facilities and dominate markets, and do not need additional flexibility (density zone pricing or volume and term discounts) to respond to competition before a more substantial amount of competitive entry has occurred. They assert that no additional flexibility should be allowed until the Bureau completes its inquiry into special access volume and term discounts. ALTS and Hyperion argue that the Commission should remove restrictions on the LECs in the same manner

as it did for AT&T in the interexchange market -- gradually, and not until after competing providers had made substantial inroads in the market.

143. The LECs contend that, in light of the competitive inroads of CAPs and others, and the likelihood of rapid competitive advances in the highly concentrated access market, additional pricing flexibility is needed to prevent price umbrellas or market share allocation that could deprive customers of the benefits of more rigorous competition. Several LECs note that ALTS' and Hyperion's arguments that restrictions on LECs be maintained until they have lost a certain share of the market ignore the realities of the access market: a few large customers, high elasticity of supply and demand, and less potential overall market growth than the interexchange market.

144. Discussion. We deny the Teleport petition and reject the claims for wholesale reversal of our density zone pricing policy, except that we slightly modify the threshold standard by changing the definition of when expanded interconnection is "operational," as set forth in 154-56 below.

145. We deny Teleport's request because the need for additional LEC pricing flexibility does not hinge upon the choice between virtual collocation and physical collocation. Access competition should accelerate with the implementation of expanded interconnection, whether in the form of virtual collocation or physical collocation. In adopting a mandatory virtual collocation policy, we intend to ensure the availability of a reasonable expanded interconnection offering that gives interconnectors a realistic opportunity to provide special access and switched transport services in competition with the LECs. Thus, making additional pricing flexibility available only to LECs that opt to provide physical collocation appears unwarranted.

146. As we stated in our earlier orders in this proceeding, excessive constraints on LEC pricing and rate structure flexibility during a time of increasing competition will deprive customers of the benefits of competition and give the new entrants false economic signals. At the same time, we recognize that inadequate restrictions on LEC pricing and rate structure could permit competitive abuses that would stifle economic competitive entry and place excessive cost burdens on customers of less competitive services. We conclude that density zone pricing for special access

and switched transport, as well as our switched transport discount rules, strike a reasonable balance between these competing concerns under our mandatory virtual collocation regime.

147. We reaffirm under the new regime our conclusion that retention of study-area-wide rate averaging or a flat restriction on discounted offerings could maintain LECs' prices at artificially high levels in low-cost areas and thus create a pricing umbrella for the CAPs, depriving customers of the benefits of more vigorous competition. Restraining full competition by the LECs even when they are the low cost service providers could further deny consumers the benefits of reduced prices from competition, increase the LECs' competitive losses under expanded interconnection, and might cause LEC rates for less competitive services to rise. In addition, some parties might enter the market who would not do so if LEC service rates were permitted to reflect more economic pricing. Similarly, requiring the LECs to maintain below-cost prices for potentially competitive services in high-cost areas could depress LECs' incentives to invest in modernizing their networks, and could deter competitive entry. We will not, therefore, limit pricing flexibility in the manner that Teleport requests.

148. With regard to the issues raised on reconsideration, and the question of whether any modifications to our previously adopted pricing flexibility rules is warranted under our new regime, we generally reaffirm our decisions in the expanded interconnection orders regarding LEC pricing flexibility. We address the specific issues relating to density zone pricing, volume and term discounts, and related issues raised in petitions for reconsideration at greater length below.

B. Density Zone Pricing

1. Threshold Required for Implementation

149. Orders/Background. In the Special Access Expanded Interconnection Order, we permitted LECs to introduce density zone pricing of interstate high-capacity special access in a study area after their expanded interconnection offerings are operational in that study area -- that is, once at least one interconnector has taken a special access cross-connect element. In the Switched Transport Expanded Interconnection Order, we permitted LECs to implement density zone pricing of interstate switched transport in a study area once their expanded

interconnection offerings are operational in that study area -- that is, after at least one interconnector has taken a switched cross-connect element.

150. Positions of the Parties on Reconsideration. Several LECs argue that zone pricing should be available after expanded interconnection tariffs are effective, rather than after an interconnector takes the service, in order to enable LECs to set rates more in line with costs, and to avoid giving uneconomic incentives for entry. Sprint and other IXC maintain that zone pricing should be available regardless of whether expanded interconnection is operational, because zone pricing enables LECs to set rates closer to cost, facilitates sound network planning and decisionmaking by IXCs, and eliminates any justification for maintaining artificial DS3/DS1 rate ratios or uneconomic volume discounts.

151. MFS and ALTS argue that instead of obtaining statewide pricing flexibility in response to a collocation arrangement, LECs should obtain pricing flexibility only in the specific metropolitan area where a CAP is providing competitive service using a collocation arrangement. MFS proposes that density zone tariffs not be permitted to become effective until the earlier of:

- (1) 12 months after a party other than AT&T has an operational interconnection arrangement, or
- (2) when interconnection arrangements are operational in central offices that serve at least 25% of the total interstate special access circuits, weighted by capacity, in a geographic area. MFS argues that since both density zone pricing and volume and term discounts give the LECs substantial pricing flexibility, LEC density zone pricing should not be permitted unless LEC volume discounts, including implicit volume discounts contained in DS3/DS1/voice grade relationships, are justified separately by cost conditions in specific zones. The CAPs, MCI, and Ad Hoc oppose the LECs' request to engage in density zone pricing before an interconnector takes service, arguing that the existing requirement gives LECs an incentive to cooperate in implementing interconnection, that no CAP would commit "market suicide" by avoiding interconnection to prevent deaveraging, and that averaged prices do not give CAPs incorrect pricing signals because the CAPs take into account the likelihood of later deaveraging.

152. The LECs and Sprint oppose the delays in density zone pricing proposed by the

CAPs, contending that density zone pricing merely allow rates to reflect cost differences, and that competition will begin even before, and certainly after, the first cross-connect is operational.

United asserts that the proposals of MFS and ALTS to allow LECs to lower rates in dense areas but

not to bring prices in other zones closer to cost is unfair and essentially would force LECs to lose

revenue. United contends that MFS's solution to the perceived problem of AT&T's "headstart" --

restraining LEC flexibility when AT&T uses expanded interconnection, and permitting flexibility

only when a party other than AT&T interconnects -- only exacerbates the problem and penalizes the

LECs without restraining AT&T, because AT&T can and does compete with LECs in providing

local transmission.

153. Discussion. We reaffirm for our new regime the conclusion that LECs with "operational" expanded interconnection offerings for special access in a study area should be allowed

to implement density zone pricing of special access in that study area, and similarly, that

"operational" switched expanded interconnection should enable LECs to implement density zone

pricing of switched transport. Substantial changes in the LECs' expanded interconnection

offerings are likely, however, in light of the Bell Atlantic v. FCC decision and the mandatory virtual

collocation policy we adopt in this order. We believe it is important to reflect these changes.

Accordingly, we modify our definition of when expanded interconnection offerings are

"operational."

154. For the purpose of our mandatory virtual collocation regime, we define

expanded interconnection offerings as "operational" when and if an interconnector has taken a cross-connect element in connection with a tariffed expanded interconnection offering after our new

mandatory virtual collocation policy becomes effective. We believe that this change will give the

LECs an incentive to cooperate in providing expanded interconnection pursuant to our new policy,

and will ensure that expanded interconnection provided under the new rules gives interconnectors

a realistic opportunity to compete with the LECs before we permit LECs to engage in density zone

pricing. The fact that an interconnector took a cross-connect prior to implementation of the new

rules will not qualify a LEC for density zone pricing if previous interconnectors cease taking

expanded interconnection, and no new interconnector takes service after

the mandatory virtual collocation rules are implemented.

155. Thus, an offering will be considered "operational" under our new regime in the following circumstances: (1) an interconnector has taken a cross-connect pursuant to a generally tariffed virtual collocation offering pursuant to our new rules; or (2) an interconnector has taken a cross-connect pursuant to a physical collocation offering subject to the terms of this order. In this second case, the interconnector need not have started taking the cross-connect after our new regime becomes effective, so long as it continues to take the cross-connect under the new rules. In study areas where a LEC has implemented density zone pricing, we will require the LEC to file, sixty days after the effective date of the LEC's new expanded interconnection offering, tariff revisions effective on 15 days notice that reestablish averaged rates throughout the study area pursuant to 69.3(e)(7) of our rules if no interconnector has taken a cross-connect under our new regime.

156. We reject proposals to delay any competitive rate changes by the LECs for an arbitrary time period (such as the 12 months proposed by MFS) or until after they have lost a specified proportion of market share. A threshold based on a simple percentage share of market penetration by LEC competitors comes too close to allocating market shares among competitors. We do not intend to try to determine competitive outcomes. Rather, we intend to expand opportunities for new entrants as well as incumbent providers to compete. As stated above, we will consider empirical evidence on the development of access competition in evaluating whether to grant the LECs additional pricing flexibility in the future. We also reject the CAPs' suggestion that LECs be permitted to reduce rates in high-density areas but not to increase rates in low-density areas, where they may be below cost due to past geographic rate averaging. Finally, making density zone pricing for price cap LECs conditional on cost-justification of special access volume discounts would be inconsistent with price cap regulation. Under price cap regulation, the threshold justification for subsequent rate changes is tested primarily by reference to the indexes and bands of price cap regulation, not cost studies.

2. Price Cap Structure

157. Orders/Background. In earlier orders, the Commission created new price cap service subcategories for LEC offerings in different zones, within the existing service categories and subcategories. The zone subcategories have upper pricing bands of 5% and lower bands of 10%. In the year during which a LEC introduces density zone pricing, the LEC must apply the same upper and lower bands to all of the zone subcategories for a given service, but the rate levels may diverge to the extent permitted by the upper and lower bands without the justifications that the price cap rules require for above- or below-band rates.

158. Positions of the Parties on Reconsideration. USTA submits that LECs will be unable to use the +5%/-10% pricing bands for the zones because of the interplay with the overall DS1 and DS3 subindexes. USTA also asserts that separate and overlapping DS1 and DS3 subindexes with duplicative zone subindexes are redundant and reduce price competition, and asks that the zone subindexes be widened and that other subindexes be eliminated. USTA contends that the upper bands in the high-cost zone remove incentives to deliver service improvements because rates will be substantially below cost. USTA asserts that the 90 day filing period and tariff support requirements for above band filings will deter and delay the implementation of compensatory rates in high cost areas. It argues for reducing the filing period and streamlining the cost support. Specifically, USTA recommends modifying the tariff standard for above-band rate zone filings to include a showing that the proposed zone revenues, when aggregated, are no greater than the study area revenues before zone pricing was implemented. Several other LECs also argue that the zone subindexes do not provide adequate pricing flexibility and are inconsistent with full competition and with the rationale behind the price cap system.

159. United argues that broader annual pricing bands are needed, such as +20%/-20%, to enable LECs to move prices rapidly toward costs. United also seeks clarification that the LECs may continue to average multiple study areas and to use a single tariff for multiple operating companies. Sprint, CompTel, and WilTel argue that broader differences should be permitted for initial rates in different zones (i.e., set initial zone rates based on the costs of service in each zone), or broader bands such as -20% and +10% or +20% for subsequent rate changes, to

enable LECs to set prices based on cost and to give proper access planning incentives to IXCs. WilTel also agrees with some LECs' arguments that the zone-specific pricing subindexes eliminate the need for overall floors for DS3 and DS1 rates, and argues that the double layer of indexes could require a LEC to increase rates in low-density zones to offset a decrease in the high-density zone.

160. The CAPs, MCI, WilTel, and Ad Hoc oppose LEC proposals to eliminate pricing bands or otherwise substantially broaden LEC pricing flexibility, contending that the price cap bands are necessary to protect against cross-subsidization of the LECs' competitive services by captive rural customers and to prevent abuse of the LECs' market power. Ad Hoc does not oppose a reasonable increase in the LECs' downward pricing flexibility in contested markets, short of predation, but states that this right should not justify predation in monopoly markets. MFS argues that if density zone pricing is allowed, LECs should have to demonstrate that the ratio of revenues to average variable cost in the highest-density zone is no less than that ratio in the lowest-density zone.

161. The LECs respond that MFS's proposed rigid ratio requirement would restrict the LECs' ability to compete using cost-based prices, and would result in economic inefficiencies and umbrella pricing. They also argue that MFS's proposal could unfairly require LECs to lower prices throughout a study area, including in low-density areas where prices are already below cost, to compete with CAPs, and would essentially constitute a return to regulation based on fully distributed costs. NYNEX contends that price cap regulation was developed to enable LECs to price services efficiently (i.e., services with elastic demand relatively close to marginal cost and services with inelastic demand relatively high above marginal cost), and to avoid the inefficient incentives created by cost-of-service regulation. Rochester submits that subsidization only occurs when a company prices a service below incremental cost, for which average variable cost is a surrogate. Thus, Rochester asserts that MFS's concern would have merit only if the ratio of revenues to average variable cost were less than one in any particular zone, regardless of the relative ratios among zones. Rochester also argues that in a competitive market, profit margins can be expected

to vary in different geographic areas.

162. Discussion. We find no need to amend the price cap rules for density zone pricing under our mandatory virtual collocation regime. Moreover, we reaffirm our decisions regarding the price cap structure for density zone pricing under the pre-existing rules, including the +5%/-10% pricing bands that apply to the zone subindexes, the retention of the overall DS1 and DS3 pricing bands, and the existing tariff procedures for above-band rate changes. We continue to believe that we granted the LECs a reasonable degree of pricing flexibility with the density zone pricing system, and nothing in the record convinces us to the contrary. As we stated in the Special Access Expanded Interconnection Order, we intend to monitor the density zone pricing system carefully and to review it in 1995. Measures to increase the LECs' pricing flexibility may be appropriate in the future, however, as the access market grows more competitive.

163. We also decline to adopt MFS's reconsideration proposal to require the LECs to demonstrate that the ratio of revenues to average variable cost in the highest-density zone is no less than that ratio in the lowest-density zone. First, we believe that the problem about which MFS is concerned -- rates that are well in excess of costs in low-density zones -- is unlikely to occur in the near future. Evidence in the record indicates that the differences between the costs of serving different geographic areas are substantial, although the rates were averaged before the implementation of density zone pricing. Thus, at present and for the next few years, we believe that with the limited pricing flexibility permitted the LECs, rates in low-density zones are unlikely to be substantially above cost. Second, we conclude that the rate-to-cost ratios may reasonably differ for similar services in different zones, within the limits of our price cap rules. When we adopted price cap regulation for the LECs, we explicitly recognized that deviations from fully distributed cost (embedded costs plus a proportional share of joint costs) may be desirable and in some cases can maximize the consumer welfare created by regulated carriers. To protect against the LECs' ability to disadvantage one class of customers to the benefit of another, the Commission used the baskets and bands mechanisms of price cap regulation.

3. Definition of Zones

164. Orders/Background. In the Special Access Expanded Interconnection Order, the Commission directed LECs to assign central offices to zones based on cost based factors such as the density of total interstate special and switched traffic. Channel terminations or entrance facilities from a given central office are classified in the zone to which the office is assigned. Interoffice facilities between central offices in different zones are classified in the higher-priced, less dense of the zones, because the Commission concluded that "this classification will be consistent with traffic density patterns and underlying costs." In the Switched Transport Expanded Interconnection Order, the Commission directed the LECs to use the same zone definitions for switched transport and special access.

165. Positions of the Parties on Reconsideration. Several IXCs argue that the LECs should not use the same density pricing zones for special access and switched transport, or for entrance facilities and interoffice facilities. CompTel asserts that the zones created for channel terminations are unsuited for interoffice transport. CompTel argues that the zones developed for channel terminations, based on collection and dispersion of traffic at wire centers, lead to little or no Zone 1 interoffice transport in many states, while the costs of interoffice transport relate to the technologies of interoffice networks and should be grouped in zones with relatively large geographic areas. WilTel submits that zones for interoffice special access and switched transport should be broad in geographic scope and should reflect prevailing network characteristics. Sprint contends that the requirement that traffic between offices in different zones must be charged the higher-rated zone rates would result in virtually no interoffice switched transport carried at high-density rates. Accordingly, Sprint argues that density zone pricing of switched transport would be ineffective unless LECs are allowed to establish density zones for switched transport different from those for special access and are required to rate interoffice traffic at the lower-priced zone, rather than the higher-priced zone. ALTS asserts that in order to establish more than three zones, LECs should be required to satisfy the same standard that applies to above-band filings under price caps: a compelling showing of substantial cause, with a high likelihood of suspension.

166. The LECs oppose establishing separate zone plans for switched and special access or for interoffice facilities and entrance facilities, and argue that their density zone pricing plans defined their zones based on a calculation that included special and switched volumes and interoffice and entrance facility volumes, that interoffice channels have cost characteristics similar to those of entrance facilities, and that separate plans would be illogical in view of the integrated services the LECs provide.

167. Discussion. We reaffirm our decision to assign interoffice facilities between different zones to the higher-price, lower-density zone, and find no reason to apply a different rule under our mandatory virtual collocation policy. In the Special Access Expanded Interconnection Order, we reached our decision based on a conclusion that interoffice traffic between different zones has cost characteristics more similar to the traffic in the less dense zone. There is no basis in our policy on remand, and no new evidence in the reconsideration record, that would justify reversing this decision. We also decline to create separate zone systems for special access and switched transport services. This would be contrary to our conclusion in the Transport proceeding that special access and switched transport have similar cost characteristics. Moreover, we directed the LECs to consider both special and switched access traffic in defining density zones. Finally, we decline to create separate zone systems for interoffice facilities and entrance facilities, or to impose substantially higher burdens of proof than those we already imposed if LECs propose zone plans with more than three zones. These alternatives would be administratively burdensome and complex for the LECs, and do not appear to provide benefits that would justify the costs.

B. Volume and Term Discounts

1. Special Access

168. Order. In the Special Access Expanded Interconnection Order, we concluded that hubbing and ratcheting arrangements are reasonable means to give customers and LECs flexibility in structuring and engineering their special access arrangements. We also found that volume and term discounts are generally legitimate means of pricing special access services to recognize the efficiencies associated with larger traffic volumes and

the certainty of longer-term arrangements. We stated, however, that some of the largest of the LECs' volume and term discounts raised concerns of anti-competitiveness, and we directed the Common Carrier Bureau to conduct an inquiry to help determine whether any additional guidelines might be appropriate.

169. Positions of the Parties on Reconsideration. MFS asserts that the LECs should be required to cost-justify all volume and term discounts that exceed reasonable threshold levels, such as the 20% maximum volume discount and 10% maximum term discount that MFS had proposed. MFS alleges that LEC volume and term discount practices will become even more pernicious if coupled with density zone pricing, and argues that LEC density zone pricing should not be permitted unless LECs justify their volume discounts, including implicit volume discounts contained in DS3/DS1/voice grade relationships, separately by cost conditions in specific zones. MFS contends that it is unreasonable for LECs to charge less for unbundled, hubbed service offerings than they charge for bundled point-to-point circuits that in most cases use similar facilities, and asks that such hubbing discounts be addressed. ALTS argues that the Commission should broaden the scope of the Bureau's inquiry to address all Tier 1 LEC volume discounts in excess of 20%, term discounts in excess of 10%, and hubbing arrangements.

170. The LECs respond that the CAPs' arguments were considered previously and rejected by the Commission, suggest that the Commission obtain information about CAP volume and term discount practices, and assert that the volume and term discounts and hubbing arrangements are reasonable and have been cost-justified. Sprint supports requiring the LECs to cost-justify volume discounts, and contends that there would be no justification for volume discounts in interoffice channel mileage rate elements. Sprint contends that intermediate hubbing is reasonable, and serves as a critical tool for medium and small IXCs to mitigate in part the price advantages the current rate structure gives AT&T.

171. Discussion. Pursuant to the Commission's direction, the Common Carrier Bureau conducted an inquiry into LEC special access volume and term arrangements. The Bureau required the four LECs that had been identified by MFS as offering the steepest discounts to submit

cost data to demonstrate whether the rates for one of their most discounted offerings covered average variable cost and were otherwise just and reasonable. Certain CAPs and LECs submitted comments on these data. At this time, we are not persuaded that LEC offerings are priced below their average variable cost. Nevertheless, we will continue to examine LEC pricing behavior in the future, and will be vigilant in examining any evidence of unreasonable pricing practices on the part of the LECs.

2. Switched Transport

a. In General

172. Positions of the Parties on Reconsideration. The IXCs other than AT&T generally seek reconsideration of the decision to permit volume discounts, arguing that such discounts will benefit AT&T, harm other IXCs, and interfere with the Commission's policies on the transport restructure and interexchange competition. CompTel, MCI, and WilTel contend that volume discounts on interoffice transport cannot be justified by underlying costs, because the cost of providing interoffice transport depends on the total traffic carried over the interoffice network, and all users should share the scale economies. Sprint does not object to term discounts that are uniform regardless of the amount or type of capacity ordered, and concedes that cost-based volume discounts on entrance facilities should be permitted, but contends that volume discounts should not be permitted on interoffice facilities because the cost of such facilities is based on the total shared interoffice network.

173. The LECs and AT&T defend the Commission's decision to permit volume discounts, stating that the LECs' competitors and the small and medium IXCs offer volume discounts on interoffice facilities, and that although both DS1 and DS3 services use the same transport facilities, higher-capacity services use less costly electronics and involve administrative cost savings from ordering, billing, and provisioning. BellSouth asserts that the small and medium IXCs' complaints are premature, because LEC-proposed discounts can be implemented only through a tariff filing with full cost support.

174. Discussion. We reaffirm our decision to permit LECs to offer volume and term

discounts on switched transport services after the specified threshold has been reached, and find no reason for a different rule under our mandatory virtual collocation policy. (We address below the specific threshold to be applied.) First, we are not persuaded that cost differences do not justify volume and term discounts on both interoffice facilities and entrance facilities. The cost of providing interoffice direct-trunked transport depends, at least in part, on the specific facilities used by the customer. Transmission facilities carrying higher volumes of traffic tend to be characterized by lower per-circuit costs than lower-capacity facilities. In addition, term discounts recognize cost savings due to the certainty of longer-term commitments. When LECs first introduce such discounts on switched transport offerings, they will be required to provide cost justification because such discounts are new services under the price cap rules.

175. Second, the record reflects that volume and term discounts are an established and accepted feature of the communications marketplace. The LECs' competitors, as well as some of the IXCs that have argued against such discounts, offer these kinds of discounts themselves. If the LECs are not permitted to offer discounts on their services, large customers can simply obtain the services from other providers at such discounts, or provide such services for themselves.

176. Finally, we believe that permitting the LECs to offer volume and term discounts, subject to the safeguards we have adopted, will stimulate economic growth and enhance access to communications markets. Lower LEC prices for high-volume and long-term services, if cost-justified, should reduce access costs for IXCs, stimulate cost-based competition in the interexchange market, and ultimately make possible lower long-distance prices. Lower long-distance prices, in turn, should stimulate greater use of communications services, as well as free resources for consumers to spend and businesses to invest elsewhere in the economy, creating opportunities for new jobs and economic expansion. Lower long-distance prices should also give more Americans access to a variety of services that are available over interstate telecommunications facilities.

b. Threshold Required for Implementation

177. Order. In the Switched Transport Expanded Interconnection Order, we permitted the LECs to begin offering switched transport with volume and

term discounts in any particular study area only after one of the following conditions is met: (1) 100 DS1-equivalent switched cross-connects are operational in the Zone 1 offices in the study area; or (2) an average of 25 DS1-equivalent switched cross-connects per Zone 1 office are operational. (Zone 1 refers to the LEC's density pricing zone with the greatest traffic density.) In study areas with no Zone 1 offices, the LECs may implement volume and term discounts once five DS1-equivalent switched cross-connects have been taken in the study area. LECs that have not implemented density zone pricing may implement volume and term discounts in a study area after customers have subscribed to 100 DS1-equivalent switched cross-connects in the study area.

178. Positions of the Parties on Reconsideration. The CAPs and the IXCs other than AT&T argue that the threshold constraints for allowing term and volume discounts are not valid measures of viable competition because they bear no relationship to realities of competition in the marketplace, the numbers are too small and easy to satisfy for large LECs, and the LECs already have excessive pricing flexibility. The CAPs recommend more stringent threshold tests for switched transport volume and term discounts: ALTS and Hyperion argue for thresholds based on a certain percentage of market share for competitors, while MFS proposes to permit LEC transport discounts in a study area only after an interconnector is present at central offices serving 50% of a LEC's switched access traffic in the study area, and two or more interconnectors are present in central offices serving 25% of the switched traffic in the study area. Sprint contends that there is no need to require a particular level of competition before allowing cost-based discounts for entrance facilities, and it makes no economic sense to allow interoffice volume discounts even if viable competition is present. MCI asserts that the thresholds are meaningless if the density of inter-connection criteria can be satisfied by AT&T alone.

179. The LECs oppose delays in volume and term discounts. They argue that their competitors provide such discounts and that because such delays would create a pricing umbrella and protections for LEC competitors that prevent real competition from developing, they are not in the public interest. They also assert that interconnection by AT&T is properly included in satisfying the threshold requirement, and argue that self-provisioning by AT&T represents a competitive challenge

to LEC switched transport offerings as significant as the introduction of CAP networks.

180. USTA and GTE assert that the threshold required for volume and term discounts on transport is inconsistent with the Commission's policy of permitting the LECs to offer special access discounts, which the Commission reaffirmed in the Special Access Expanded Interconnection Order, and is unsupported by the Communications Act. They contend that the threshold will unfairly exacerbate LEC competitive losses and prevent genuine competition, and is an arbitrary and capricious exercise in regulatory handicapping. They argue that a more reasonable threshold for volume and term discounts would be when switched expanded interconnection is tariffed (or, in the alternative, when it is operational). USTA and GTE propose that special access cross-connects be counted toward satisfaction of the threshold requirement, given that special and switched access services are substitutable and zone plans were constructed based on total traffic density.

181. GTE, Rochester, and USTA note that the threshold essentially requires substantial market share losses before LECs with smaller study areas may engage in volume and term discounts. GTE asserts that in over half of its study areas, the 100 DS1 equivalents threshold would require market share losses of 25% or more, and that in the five GTE study areas where the 25 DS1 equivalents per Zone 1 office threshold applies, that threshold amounts to a 43% to 60% loss of market share. Rochester states that the 100 DS1 threshold, which applies to it, would require loss of nearly half of its switched transport minutes to competitors. Sprint, MCI, MFS, and ALTS oppose the LECs' proposals, although these parties concede that the threshold may be unreasonably high in some smaller study areas. As already noted, Sprint instead recommends permitting no volume discounts, MCI would permit only cost-based discounts that apply equally to all interoffice network users, while MFS recommends using a market penetration test as the threshold.

182. Discussion. For our new mandatory virtual collocation regime, we generally reaffirm the threshold that must be met before a LEC may introduce term and volume discounts on switched transport. The threshold chosen represents a considered policy decision balancing both the costs and benefits of higher and lower thresholds. The requirement that

LECs not offer transport volume or term discounts until expanded interconnection is operational on a broader scale than a single operational cross-connect should provide an incentive for the LECs to offer expanded interconnection for switched transport on reasonable terms. In addition, a LEC's flexibility to engage in volume and term discounts for switched transport services should be linked to a demonstration that the LEC's switched expanded interconnection offering presents a viable competitive opportunity. For this reason, in light of our mandatory virtual collocation policy, we adopt the definition of "operational" cross-connects that we adopted in the context of density zone pricing.

183. The lower thresholds for density zone pricing (and special access volume and term discounts) coupled with the higher threshold for switched transport discounts should gradually introduce LEC pricing flexibility and facilitate the initial development of competitive entry. A different standard for special access and switched transport is also reasonable: interstate switched access services, unlike special access services, have always been subject to close rate structure regulation and, until December 1993, were priced at an equal charge per minute of use. Permitting volume and term discounts for switched transport is a substantial departure from our past practice, and must be done cautiously.

184. As with density zone pricing, we decline to set a threshold based on the market penetration of LEC competitors, an action that may be perceived to endorse allocating market shares among competitors. We do not intend to try to determine competitive outcomes. Rather, we intend to expand new entrants', as well as incumbent providers', opportunities to compete. We are, however, concerned about GTE's and Rochester's assertions that in smaller study areas the 100 DS1-equivalent switched cross-connects threshold requirement may require LECs to lose 25% to 60% of their switched transport market share before they may implement volume and term discounts. Because this problem potentially may affect only a few Tier 1 carriers with small study areas, we delegate authority to the Chief, Common Carrier Bureau, to modify the threshold point for zone density pricing in unusual circumstances where a change in the strict requirements would advance the Commission's objectives.

185. Finally, we do not adopt GTE's and USTA's proposal to count special access cross-connects toward any of the thresholds for switched transport discounts. Although there is a degree of cross-elasticity demand between special access and switched transport, the gradual introduction of LEC pricing flexibility warrants looking only to switched access cross-connects in deciding when to allow more switched access flexibility.

c. Application of New Service Test to Discounts

186. Order. When LECs subject to the price cap rules offer volume and term discounts on switched transport, the LECs must satisfy the cost showing requirements for new services under those rules. A special 120-day notice period, rather than the standard 45-day notice period, applies to these tariff filings.

187. Positions of the Parties on Reconsideration. CompTel, Sprint, WilTel, and MFS object to the price cap new service test that will be used to evaluate the level of discounted prices. CompTel asserts that LECs have excessive flexibility to define direct costs and to employ non-uniform overhead loadings, while Sprint contends that the Commission should require justification for any rate differences between different levels of capacity. Sprint also argues that LECs should be required to implement density pricing before offering volume discounts, to prevent LECs from charging medium and small IXCs high, averaged rates for transport in high-density areas while giving AT&T volume discounts. WilTel submits that the new service test is inadequate to scrutinize discounts because it prevents over-pricing but not discriminatory under-pricing. WilTel opposes using the volume discounts in existing LEC special access tariffs as the basis for switched transport rates, noting that the Commission is in the process of investigating current LEC special access volume discounts. MFS contends that the new service test does not place any meaningful limits on the magnitude of the discounts, and instead proposes requiring the LECs to show that the ratio of revenues to average variable cost of discounted services is not less than the same ratio for less discounted services (except for term discounts less than 10% or volume discounts less than 20%).

188. NYNEX opposes proposals to compare the overhead loadings or revenue-to-cost ratios of different services. NYNEX argues that price cap regulation was developed to enable

LECs to price services efficiently (i.e., services with elastic demand relatively close to marginal cost and services with inelastic demand relatively high above marginal cost), and to avoid the inefficient incentives created by cost-of-service regulation. Rochester submits that subsidization only occurs when a company prices a service below incremental cost, for which average variable cost is a surrogate. Thus, Rochester asserts that MFS's concern would have force only if the ratio of revenues to average variable cost were less than one for any particular offering, regardless of the relative ratios among services.

189. GTE argues that rates for discounted switched transport offerings should be presumed reasonable if based on existing special access rates, like rates for non-discounted, restructured transport, without additional cost support or lengthy review periods. GTE notes that its volume and term special access arrangements have been cost-justified either under rate-of-return regulation or under the price cap rules' below-band pricing test. GTE contends that discounted transport offerings are "new services" only as an artifact of the sequence in which the Commission permitted them to be introduced, and essentially are no more "new services" than were the non-discounted restructured transport rates. GTE also argues that the 120-day tariff review period is unnecessarily long and contrary to the public interest. ALTS responds that improper pricing could be more disruptive for switched transport because of the size of the market, and that it is essential to retain the 120-day review period to give the Commission and interested parties additional time to assess whether the tariff rates are cost-justified.

190. Discussion. We retain for our mandatory virtual collocation regime the rule regarding cost showings for discounted switched transport offerings, which qualify as new services under the price cap rules. New services are services that make additional options available to customers, which discounted transport offerings clearly do. Volume or term discounts for the transport component of interstate switched access have never been offered in the past. Contrary to the IXCs' assertions, the new service test protects against underpricing as well as overpricing. The cost justification that the LECs are required to submit enables us to ascertain that rates for new services are not less than direct costs.

191. We reject the proposals of MFS and Sprint to require

LECs to demonstrate that discounted services recover the same proportion of overheads as non-discounted services, or to require that the ratio of revenues to average variable cost of discounted offerings be no less than that ratio for non-discounted services. We conclude that the cost showing required by the existing new service test adequately protects against possible unreasonable discrimination with respect to newly introduced volume and term discounts for switched transport.

192. We believe that the cost justification required pursuant to the new service standard is an essential safeguard against the LECs' offering of unreasonable volume and term discounts on switched transport. Accordingly, we will not permit the discounted switched transport rates to be set based on pre-existing discounted special access rates without such cost justification. In addition, we are not persuaded that any change is necessary to the 120-day notice period for these tariff filings, which we conclude is reasonable in light of the extensive cost showings that must accompany these tariffs.

D. Other Forms of Pricing Flexibility

193. Orders/Background. In the Special Access Expanded Interconnection Order and the Switched Transport Expanded Interconnection Order, we did not grant the LECs broader pricing flexibility, such as individual case basis pricing of special access or switched transport in response to competitors' offerings or differential pricing of loop-side and trunk-side special access services.

194. Positions of the Parties on Reconsideration. GTE and USTA argue that, in order to compete fully with CAPs, LECs should be able to engage in individual case basis contract pricing, competitive response pricing, or other alternatives. USTA also argues for comprehensive reform of the restrictive Part 69 structure and tariffing rules applicable to the LECs in light of competition. Ad Hoc supports non-predatory individual case basis pricing of DS1 and DS3 services in contested markets. The CAPs and IXCs respond that such broad pricing flexibility could lead to widespread anti-competitive behavior by LECs, such as preferential arrangements benefiting AT&T, as demonstrated by the results of the Commission's investigation of individual case basis pricing of DS3 offerings and the pending inquiry on volume and term discounts, and is unnecessary given the

flexibility already granted to the LECs. Sprint contends that with a properly implemented system of density zone pricing that enables LECs to respond to competitive pressures in dense areas, there is no justification for individual case basis or contract pricing. In an ex parte filing, Pacific argues that LECs should be permitted to institute differential rates for loop-side and trunk-side special access rates, which Pacific contends would be cost-justified.

195. Discussion. We do not grant the LECs authority for broader pricing flexibility at present. We have taken a number of significant steps to increase the LECs' ability to compete with new entrants. We also recognize, however, that the LECs continue to possess substantial market power in the provision of special access and switched transport services. We believe that the ability to introduce density zone pricing and volume and term discounts under the criteria we have set is sufficient flexibility to facilitate the development of competition at this time.

196. As competition develops, we may consider eliminating more of the pricing restrictions imposed upon the LECs. As indicated in paragraph 79 above, however, we intend to carefully monitor the development of competition in the access marketplace, and have delegated to the Chief, Common Carrier Bureau, responsibility for instituting a monitoring program.

E. Fresh Look

197. Orders/Background. In general, "fresh look" means a policy that makes it easier for an incumbent provider's established customers to consider taking service from a new entrant. In the Second Reconsideration Order, we reconsidered de novo our "fresh look" policy for special access expanded interconnection. We concluded that certain long-term special access arrangements may prevent customers from obtaining the benefits of the new, more competitive access environment. For that reason, we adopted a "fresh look" policy, limiting the charges a LEC may impose on certain customers who want to terminate long-term LEC special access arrangements to an amount that would place both the LEC and the customer in the same position they would have been had the customer chosen a shorter term arrangement from the beginning of the term. We limited the fresh look opportunity to customers with LEC special access arrangements for terms of

three years or longer, entered into on or before September 17, 1992, the date of adoption of the Special Access Expanded Interconnection Order. The right to limited termination charges for services in a particular central office exists for a period of 180 days from the date of filing of the LEC's tariff transmittal giving public notice of the start of the fresh look period. The LEC must file that tariff transmittal within five business days of the date that the first special access expanded interconnection arrangement is operational in that central office.

198. If a customer chooses to terminate a long-term arrangement pursuant to the fresh look policy, its termination liabilities will be limited to the difference between the amount the customer has already paid and any additional charges that the customer would have paid for service under a shorter term offering corresponding to the term actually used, plus interest at the IRS rate for tax refunds, compounded daily from the date of each discounted payment that the customer made while taking the service. In addition, we created a second fresh look opportunity that occurs when switched transport expanded interconnection becomes operational, and applies only to LEC special access facilities used to transmit both special and switched access traffic. Like the original fresh look, this second opportunity applies only to long term arrangements entered into on or before September 17, 1992.

199. In *Bell Atlantic v. FCC*, the Court of Appeals did not directly address the LECs' challenges to our fresh look policy. The court held that "[a]lthough the temporary right to switch providers may have been intended as an independent regulatory remedy for the problems of rate structure and barriers to competition that the Commission identified, the remedy was tied to the details of co-location and would float unattached in their absence. We must therefore remand that portion as well."

200. Positions of the Parties on Reconsideration. MFS and Teleport argue that to facilitate greater access competition, the fresh look requirement should eliminate termination liabilities, rather than merely limiting them. WilTel and MFS argue that AT&T's pre-existing collocation at many BOC central offices and its dominant market share enable it to benefit uniquely from expanded interconnection, assert that the benefits of fresh look will be lost if access customers

do not have competitive alternatives to LEC services during the period in which they can terminate their access arrangements with LECs, and therefore ask that the fresh look period not be triggered by interconnection by a party that already had collocated facilities before September 1992 (i.e., AT&T) alone.

201. The LECs respond that the CAPs and WilTel raise no new arguments, that the Commission's fresh look rules properly permit the LECs to collect cost-based non-recurring charges and put both the LEC and the customer in the same position they would have been if the customer had originally chosen a shorter term arrangement, and that customers with term arrangements are large sophisticated businesses that do not need additional protection. They contend that LECs face real competition from self-provisioning by AT&T, that the expanded interconnection proceeding is not intended to equalize the competitive positions of new entrants and established providers, and that the fresh look period should run from the same date that density zone pricing is implemented.

202. USTA suggests that, instead of requiring LECs to file tariff transmittals every time expanded interconnection becomes operational in a central office, the Commission should require LECs to file monthly transmittals to include all new collocations that become operational within that month. MFS supports USTA's proposal, stating that it would reduce administrative burdens on LECs, interconnectors, and users by making the fresh look notice process simpler and more predictable.

203. GTE Petition. GTE filed a petition for waiver of the requirement that it file a tariff each time expanded interconnection first becomes operational in a central office. Instead, GTE proposes to reduce the termination charges in its tariff to enable all customers that may become eligible for the fresh look to exercise that option at any time during the term of their agreements. GTE also proposes not to charge customers any interest in computing the applicable termination charges. GTE contends that these measures would benefit its customers, and should relieve GTE of administrative burdens in calculating such charges. SW Bell does not oppose GTE's petition, but suggests that no waiver may be required, and contends that other LECs should not be subject to similar requirements.

204. Discussion. We conclude that fresh look continues to be necessary, in connection with our mandatory virtual collocation policy, to give customers with LEC term discounts entered into on or before September 17, 1992, a reasonable chance to take advantage of new competitive opportunities made possible by expanded interconnection. We reaffirm our conclusion that the limited termination liabilities enable customers to benefit sooner from the competition generated by our expanded interconnection policies. We also reaffirm our conclusion that fresh look does not place an unreasonable burden on the LECs, since the LECs will obtain the compensation appropriate for the term actually taken by the customer. In addition, we find that the parties have presented no evidence or arguments in the reconsideration record that persuade us that our earlier conclusion regarding the maximum reasonable amount of termination liabilities was incorrect.

205. Some of the LECs challenged our fresh look policy in court on the grounds that we did not provide adequate notice of the policy to satisfy the requirements of Section 553 of the Administrative Procedure Act or Section 205 of the Communications Act. We disagree with this contention. In the initial Notice of Proposed Rulemaking in this proceeding, we focused on the anticompetitive effect of the LECs' then-existing special access tariff structure. Long-term contracts had the effect of locking in that tariff structure and sealing off portions of the market from competition, notwithstanding our expanded interconnection policy. Thus, in the absence of fresh look, implementation of expanded interconnection would lead to only limited special access competition because of the effects of long-term contracts. While we recognize that we did not ask for specific comment on the fresh look remedy, we continue to believe that it is a "logical outgrowth" of the competitive concerns identified in the Notice. Finally, we reconsidered the fresh look issue de novo, and made substantial changes to the policy, in the Second Reconsideration Order, based on an extensive record submitted by a broad range of parties. Thus, even if inadequate notice was given before adopting fresh look in the Special Access Expanded Interconnection Order, any error was harmless because we have already reconsidered the decision de novo, with an open mind.

206. We also reaffirm that interconnection by any party, including AT&T, in a given central office triggers the beginning of the fresh look period for that office. If AT&T (or any other party) interconnects in a central office, it should be eligible for limited termination liabilities for long-term LEC special access arrangements purchased by it or by its customers to whom it sells access service. The fresh look period does not re-commence each time a new interconnector enters a given central office. Interconnectors subsequent to the first must take the access market as they find it. The LEC tariff filing giving customers public notice of the beginning of the fresh look period for each central office gives potential subsequent interconnectors notice of the activities of the earliest interconnector, and enables them to start providing service in the central office during the fresh look period if they can and choose to do so. We are not placing any special restrictions on the ability of AT&T or other parties to purchase and use expanded interconnection.

207. USTA's proposal to allow LECs to file monthly transmittals including all new collocations that become operational within that month appears to be reasonable. As noted by MFS in support, this should reduce the tariff filing burdens on LECs, as well as the information retrieval burdens on parties interested in these filings. Accordingly, we modify our fresh look policy, which currently requires LECs to file tariff transmittals giving public notice of the fresh look opportunity for each central office no later than five business days after the first special access expanded interconnection arrangement becomes operational in the central office. Instead, we will require the LECs to file tariff transmittals no later than five business days after the end of each calendar month giving public notice of the fresh look opportunity for each central office in which the first expanded interconnection arrangement became operational during that month. The fresh look period runs from the actual date that the first expanded interconnection arrangement becomes operational until 180 days following the filing date of the tariff providing notice of the beginning of the fresh look period. The same procedures will apply to fresh look periods triggered by switched transport expanded interconnection. In addition, we clarify that LECs need not file any tariff transmittals if their termination liabilities are less than or equal to the maximum liabilities specified by our fresh look policy. Accordingly, we dismiss GTE's petition for waiver as moot.

208. Finally, we conclude that no additional fresh look periods are necessary under our mandatory virtual collocation rules. Once interconnectors entered a market by using physical collocation arrangements in a particular central office, LEC customers with term discounts had the opportunity to switch their service to the interconnectors with limited termination liabilities. Such interconnectors are likely to remain active in the same geographic areas even if the LEC substitutes a virtual collocation offering for its physical collocation offering. Thus, if the fresh look period has already run in a given central office, no new fresh look period will be triggered by operational expanded interconnection under our new policies.

F. Non-Recurring Reconfiguration Charges

209. Order. In our earlier orders, we decided that all non-recurring charges applicable to customers shifting to an interconnector's services are to be set no higher than cost-based levels, and exempted such charges from the application of the presumption of reasonableness in the price cap rules. In addition, we concluded that any difference between the charges applicable when a customer shifts to an interconnector's services and those applicable when a customer reconfigures its service with the LEC must be cost-based.

210. Positions of the Parties on Reconsideration. Ameritech asks the Commission to reconsider the decision to eliminate the price cap presumption of reasonableness for non-recurring reconfiguration charges, expressing concern about the erosion of pricing flexibility in the price cap system, and arguing that the price cap constraints and the existence of access competition and inter-connection adequately protect consumers. MFS responds that it is necessary to abandon the presumption of lawfulness in order to review the reasonableness of the levels and differences in non-recurring charges, protect consumers and competitors, and enforce the Communications Act's prohibition of unreasonable discrimination in this context.

211. Teleport opposes the provision permitting "cost-based" differences between non-recurring charges applicable to customers shifting to use interconnector services and those applicable to customers reconfiguring LEC services. Teleport argues that this exception creates a huge loophole that enables LECs to discriminate against access competitors, and instead

recommends a requirement that LECs waive all NRCs when customers shift traffic to competitors within 180 days of the establishment of a collocation arrangement in a given central office. The LECs argue that termination liabilities are cost-based, are commonly used throughout commerce, including by the CAPs, and reflect the economics of protecting LECs and their ratepayers from premature customer departure from LEC facilities. They also argue that Teleport's proposal would constitute a rate prescription without the necessary procedures.

212. Discussion. We reaffirm our policies on non-recurring reconfiguration charges. These charges raise special competitive concerns, and we conclude that elimination of the price cap presumption of reasonableness for these charges is necessary to enforce our requirement that the levels of and differences between these charges be cost-based, and to protect competitors and consumers. We also reaffirm that LECs may charge higher non-recurring charges to customers reconfiguring to use interconnectors' services than they charge for other reconfigurations if such rate differences are cost-justified. The LECs incur legitimate costs in making service changes, and in general should be able to recover these costs from interconnectors and their customers. The only exception would be when the LEC does not recover non-recurring reconfiguration costs from its own special access or switched transport customers. In that case, the LEC must not charge customers who reconfigure in order to take service from an interconnector more than an amount reflecting the difference between the costs of the two different types of reconfigurations.

VIII. OTHER MATTERS

213. The CAPs have argued that the Commission should impose certain requirements to govern the transition from a mandatory physical to a mandatory virtual collocation regime. Specifically, the CAPs argue that in the event LECs choose to terminate their existing physical collocation offerings, those LECs should bear the full cost of any LEC-required rearrangements to virtual collocation. The CAPs also argue that the LECs should reimburse interconnectors for certain charges previously paid for physical collocation, such as the costs of cage construction, and that LECs that "grandfather" existing physical collocation arrangements should be required to permit

interconnectors reasonably to expand those facilities to meet demand. We believe that the transition issues raised by the CAPs generally present questions that should be addressed on a case-by-case basis. We delegate authority to the Chief, Common Carrier Bureau, to address these matters.

214. With respect to any other issues addressed in our previous expanded inter-connection orders that are not specifically addressed in this order, we reaffirm our earlier conclusions for our new virtual collocation regime, based on the reasons stated in the earlier orders.

IX. CONCLUSION

215. Our expanded interconnection policy advances major Commission objectives of promoting economic growth and increasing access to communications networks. Accordingly, we modify that policy to be consistent with the recent court decision in the Bell Atlantic v. FCC case, and require the LECs to provide expanded interconnection through virtual collocation, unless they qualify for an exemption that would permit them to offer physical collocation instead. We have addressed in detail in this order the standards, terms, and conditions that will apply to virtual collocation under our new policy. Because we expect that some LECs will provide a Title II physical collocation offering under this new regime, we have also addressed the standards, terms, and conditions that will apply to physical collocation. In most respects, the rules governing the mandatory virtual collocation regime will be the same rules that applied under our original mandatory physical collocation policy.

X. ORDERING CLAUSES

216. Accordingly, IT IS ORDERED, pursuant to authority contained in Sections 1, 4, 201-205, 214, and 218 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154, 201-205, 214, and 218, that Parts 64 and 69 of the Commission's Rules ARE AMENDED as set forth in Appendix B of this Order.

217. IT IS FURTHER ORDERED that the policies, rules, and requirements adopted in this Order SHALL BE EFFECTIVE on December 15, 1994, except the requirements regarding the filing of tariffs and regarding notifications with respect to exempt

physical collocation
offerings, which SHALL BE EFFECTIVE on September 1, 1994.

218. IT IS FURTHER ORDERED that Teleport's Petition for
Declaratory Ruling IS
DENIED except to the extent specified in this order.

219. IT IS FURTHER ORDERED that GTE's Petition for Limited
Waiver of the
"Fresh Look" Policy IS DISMISSED as moot.

220. IT IS FURTHER ORDERED that authority is delegated to the
Chief, Common
Carrier Bureau, as set forth herein.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Acting Secretary

APPENDIX A
PETITIONS FOR RECONSIDERATION,
OPPOSITIONS AND REPLIES FILED

Petitions for Reconsideration of the
Special Access Expanded Interconnection Order ("Special Petitions")
December 18, 1992

American Telephone and Telegraph Co. (AT&T)
Association for Local Telecommunications Services
(ALTS)
Central Telephone Co. (Centel)
GTE Service Corporation and its affiliated domestic
telephone operating companies (GTE)
Independent Data Communications Manufacturers
Association, Inc. (IDCMA)
MCI Telecommunications Corp. (MCI)
MFS Communications Co. (MFS)
National Association of Regulatory Utility
Commissioners (NARUC)

New York Telephone Co. and New England
Telephone and Telegraph Co. (NYNEX)
Penn Access Corporation (Penn Access)
Rochester Telephone Corp. (Rochester)
Sprint Communications Co. (Sprint)
Teleport Communications Group (Teleport)
Tennessee Public Service Commission (Tennessee)
United States Telephone Association (USTA)
United Telephone Companies (United)
WilTel, Inc. (WilTel)

Oppositions to Petitions for Reconsideration of the
Special Access Expanded Interconnection Order ("Special Oppositions")

February 3, 1993

Ad Hoc Telecommunications Users Committee (Ad
Hoc)

Ameritech Operating Companies (Ameritech)

ALTS

American Petroleum Institute (API)

AT&T

Bell Atlantic Telephone Companies (Bell Atlantic)

Competitive Telecommunications Association

(CompTel)

GTE

IDCMA

Information Industry Association (IIA)

Information Technology Association of America
(ITAA)

International Communications Association (ICA)

MCI

MFS

NARUC

NYNEX

Prodigy Services Co. (Prodigy)

Rochester

Sprint

United

USTA

WilTel

Replies to Oppositions to Petitions for Reconsideration of the
Special Access Expanded Interconnection Order ("Special Replies")
February 18, 1993

ALTS
AT&T
GTE
MCI

MFS
IDCMA
NYNEX

Penn Access Corp.
(Penn Access)
Sprint
Teleport

United
USTA
WilTel

Petitions for Reconsideration of the
Second Reconsideration Order ("Second Special Petitions")
October 18, 1993

Ameritech

MFS

USTA

WilTel

Oppositions to Petitions for Reconsideration of the
Second Reconsideration Order ("Second Special Oppositions")
November 23, 1993

Bell Atlantic

GTE

MFS

USTA

Replies to Oppositions to Petitions for Reconsideration of the
Second Reconsideration Order ("Second Special Replies")
December 9, 1993

Ameritech

MFS

USTA

WilTel

Petitions for Reconsideration of the
Switched Transport Expanded Interconnection Order ("Switched Petitions")
October 18, 1993

ALTS
CompTel
GTE
Hyperion Telecommunications, Inc. (Hyperion)
MCI
MFS
NARUC

Pennsylvania Public Utility Commission
(Pennsylvania)

Sprint

WilTel

Teleport

USTA

Oppositions to Petitions for Reconsideration of the
Switched Transport Expanded Interconnection Order ("Switched
Oppositions")

November 23, 1993

Ameritech

AT&T

Bell Atlantic

BellSouth Telecommunications, Inc. (BellSouth)

GTE

MFS

NYNEX

Pacific Bell and Nevada Bell (Pacific)

Rochester

Sprint

United and Central Telephone Companies (United)

USTA

WilTel

Replies to Oppositions to Petitions for Reconsideration of the
Switched Transport Expanded Interconnection Order ("Switched Replies")
December 9, 1993

CompTel
GTE

MCI
MFS

Rochester
Sprint

USTA
WilTel

APPENDIX B -- RULE CHANGES

PART 64 -- MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

1. The authority citation for Part 64 continues to read as follows:

AUTHORITY: Section 4, 48 Stat. 1066, as amended; 47 U.S.C. 154, unless otherwise noted.
Interpret or apply secs. 201, 218, 225, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 201, 218, 225, unless otherwise noted.

2. Section 64.1401 of Subpart N of Part 64 is amended by revising paragraph (c), removing paragraphs (d) and (e), redesignating paragraphs (f) through (i) as paragraphs (d) through (g), respectively, and revising redesignated paragraph (f)(2), to read as follows:

64.1401 Expanded Interconnectio

* * * * *

(c) The local exchange carriers specified in paragraph (a) of this section shall offer expanded interconnection for interstate special access and switched transport services through virtual collocation, except that they may offer physical collocation, instead of virtual collocation, in specific central offices, as a service subject to non-streamlined communications common carrier regulation under Title II of the Communications Act (47 U.S.C. 201-228).

* * * * *

(f) * * *

(2) At least two such interconnection points at any local exchange carrier location at which there are at least two entry points for the local exchange carrier's cable facilities, and space is available for new facilities in at least two of those entry points.

Part 69 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 69 -- ACCESS CHARGES

1. The authority citation for Part 69 continues to read as follows:

AUTHORITY: Secs. 4, 201, 202, 203, 205, 218, 403, 48 Stat. 1066, 1070, 1072, 1077, 1094, as amended; 47 USC 154, 201, 202, 203, 205, 218, 403.

2. Section 69.121 is amended by revising paragraph (a)(2) to read as follows:

69.121 Connection charges for expanded interconnection

(a) * * *

(2) Charges for subelements associated with physical collocation or virtual collocation, other than the subelement described in paragraph (a)(1) of this section and subelements recovering the cost of the virtual collocation equipment described in 64.1401(e)(1) of this chapter, may reasonably differ in different central offices, notwithstanding 69.3(e)(7).

* * * * *